



Republic of the Philippines
Department of Education
REGION XI
SCHOOLS DIVISION OF DIGOS CITY

OFFICE OF THE SCHOOLS DIVISION SUPERINTENDENT

Division Advisory No. 116 s. 2022
June 27, 2022

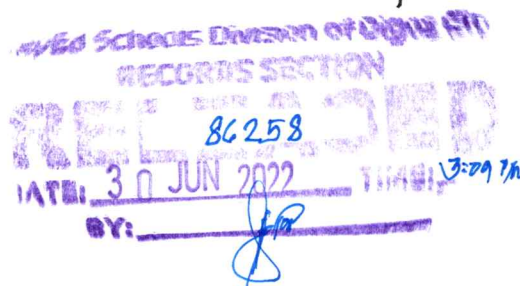
In compliance with DepEd Order No. 8, 2013
this Advisory is issued not for endorsement per DO 28, s. 2001,
but for the information of DepEd officials,
personnel/staff, as well as the concerned public.
(Visit www.deped.gov.ph)

**Training Workshop on Inclusive Science Education for
Linguistic and Cultural Diversity**

1. Herewith is an invitation from Philippine Normal University regarding the Training Workshop on Inclusive Science Education for Linguistic and Cultural Diversity on July 19, 20, 21, 22, 25, 27 (Synchronous) and July 28- August 15, 2022.
2. Participation to the said activity shall be on personal time and expense and subject to the policy on "No Disruption of Classes" per DepEd Order No. 9, s. 2005, entitled "Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith."
3. Other details of the training are in the enclosures.
4. For information, dissemination and guidance.

CRISTY C. EPE

Schools Division Superintendent



Encls: DepEd Region XI Advisory No. 082, s. 2022
References: DepEd Region XI Advisory No. 082, s. 2022
To be indicated in the Perpetual Index under the following subjects:
CURRICULUM SCIENCE TRAINING
Ibj: Training Workshop in Inclusive Science Education for Linguistic and Cultural Diversity



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News



Republic of the Philippines
Department of Education
DAVAO REGION

DepEd Schools Division of Digos City
RECORDS SECTION

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BY: [Signature]

Office of the Regional Director

DEPED REGION XI ADVISORY NO. 082 s. 2022
June 8, 2022

This Advisory is issued for the information of All Schools Divisions
Superintendents

Herewith is an invitation from Philippine Normal University regarding the
Training Workshop in Inclusive Science Education for Linguistic and Cultural
Diversity on July 19, 20, 21, 22, 25, 27 (Synchronous) and July 28 - August 15, 2022
(Asynchronous).

Participation in the said activity is discretionary on the part of the Office of the
Schools Division Superintendent. The policy on "No Disruption of Classes" per DepEd
Order No. 9, s. 2005 entitled: "Instituting Measures to Increase Engaged Time-on-
Task and ensuring Compliance Therewith" shall be observed.

Participation of the above activity is on personal time and expense.

All other details of the said training are in the enclosures.

Dissemination of this Advisory is desired.

ALLAN G. FARNAZO
Director IV

Enclosed: As Stated.

ROC6/mlib

DEPARTMENT OF EDUCATION RO
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RELEASED

By: [Signature]
Date: 06/09/2022 Time: 3:02 PM
0622-4037



Address: F. Torres St., Davao City (8000)
Telephone Nos.: (082) 291-1665; (082) 221-6147

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PHILIPPINE NORMAL UNIVERSITY
The National Center for Teacher Education
OFFICE OF THE UNIVERSITY PRESIDENT

9 Taft Avenue corner Ayala Boulevard, Ermita, Manila

(+63 2) 5317 1768 loc. 715/716

Office of the Assistant Regional Director

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Date/Time: 6/2/22 1:40

Signature:

ar.d@pnu.edu.ph

May 31, 2022

DR. ALLAN G. FARNAZO

Regional Director

Department of Education – Region XI

F. Torres St., Davao City

DEPARTMENT OF EDUCATION ROXI

RECORDS SECTION

RECEIVED

By: 06/02/22

Date: 6.2.22 Time: 10:57 AM

Dear **Regional Director Farnazo**:

The Philippine Normal University, as the National Center for Teacher Education and a champion of teacher quality, will be conducting an intensive **Training Workshop in Inclusive Science Education for Linguistic and Cultural Diversity**. We envision that this will help in the aspect of retooling science faculty members teaching in the preservice in order to promote inclusive and quality science education of teacher education programs. We foresee this program as a venue to create a consortium of science educators/teachers who will promote advancement in science to improve quality, sustainability, and inclusivity in science education at the basic education level.

In view of this, we would like to request for an endorsement from DepEd Region XI of the aforementioned training program for Science Teachers, which may accommodate up to 500 participants via Zoom Video Conferencing. Please find attached the required documents, for your review and consideration.

Thank you in anticipation of your positive response to our request.

Very truly yours,

BERT J. TUGA, PhD
President



Founder & Permanent Secretariat
Association of Southeast Asian Teacher
Education Network



Lead Convener
National Network
of Normal Schools



ISO 9001



S. No. 3157
H. No. 6049

Republic of the Philippines
Congress of the Philippines
Metro Manila

Fourteenth Congress

Second Regular Session

Begun and held in Metro Manila, on Monday, the twenty-eighth day
of July, two thousand eight.

[REPUBLIC ACT NO. 9647]

AN ACT DESIGNATING THE PHILIPPINE NORMAL UNIVERSITY
AS THE COUNTRY'S NATIONAL CENTER FOR TEACHER
EDUCATION, APPROPRIATING FUNDS THEREFOR, AND FOR
OTHER PURPOSES

*Be it enacted by the Senate and House of Representatives of the
Philippines in Congress assembled:*

SECTION 1. *Title.* — This Act shall be known as the
"Philippine Normal University Modernization Act of 2009".

SEC. 2. *Declaration of Policy.* — It is hereby declared
the policy of the State to give priority to the continuing
professional training and development of all Filipino teachers
and optimize the potentials of the country's teaching force to
increase access to, promote equity in, and improve the quality

of basic and higher education. The State shall likewise give priority to studies in education with emphasis on innovations and alternative systems and their utilization and application to teacher training and development.

SEC. 3. National Center for Teacher Education. — This Act designates the Philippine Normal University (PNU) as the National Center for Teacher Education. As such, the PNU, in addition to the powers and functions provided for in its charter, shall perform the following:

(a) Provide technical support to the Department of Education (DepEd) and the Commission on Higher Education (CHED) in their programs and projects that chart policies and recommendations on teacher training, teacher education, continuing professional education of teachers and academic supervisors, and teacher education curricula;

(b) Build and develop a database of education policies to serve as a resource to the country's policy-makers;

(c) Conduct researches, case studies, and other appropriate methodologies to enhance curriculum and training designs for teacher training, teacher education, and continuing professional education of teachers and academic supervisors; and

(d) As may be directed by Congress, provide assistance to legislators in the design and analysis of legislative proposals concerning teacher training, teacher education, continuing professional education of teachers and academic supervisors, teacher education curricula, and other issues affecting teacher education.

SEC. 4. Teacher Education Standards Development. — As the National Center for Teacher Education, the PNU shall make an annual presentation to the DepEd, CHED, the House and Senate Committees on Education, and other education institutions on its proposed standards for teacher training, teacher education, continuing professional education of teachers and academic supervisors, and teacher education curricula. Such presentation shall be made available to the general public especially to teachers and academic supervisors. The presentation shall include, but shall not be limited to, the following:

(a) Necessary competencies of teachers and academic supervisors in their various fields of specialization;

(b) Innovative strategies and alternative modalities of teaching and learning; and

(c) Information and communication technology breakthroughs to assist the process of teaching and learning.

SEC. 5. *Education Policy Research and Development.*
— As the National Center for Teacher Education, the PNU shall establish an Education Policy Research and Development Office which shall:

(a) Establish and maintain a database of education policies and significant issues facing the country's education system as well as the education systems of other countries especially in the Asia Pacific region;

(b) Create and test different models of teacher education, address key factors in successful teacher education programs and determine which model would best achieve the country's education goals;

(c) Provide a systematic dissemination of research output on teacher education to make them readily available to end users such as teachers and academic supervisors;

(d) Share research expertise and competence in education research with other Teacher Education Institutions throughout the country: *Provided*, That the research funding of other state universities and colleges shall in no way be affected by the provisions of this Act;

(e) Advise the country's policy-makers and decision-makers in planning, implementing and evaluating reforms in teacher education including the licensing of professional teachers;

(f) Assist in the assessment of government programs on education. As such, PNU may be required by any government agency to comment and/or make recommendations regarding the different policies and programs on education; and

(g) Conduct periodic studies in aid of crafting responsive policies and programs on education.

SEC. 6. *Philippine Normal University Modernization Program.* – The PNU shall prepare a modernization plan to fulfill its mandate as the National Center for Teacher Education, and to upgrade its capability to provide pre-service and in-service formation for our country's teachers.

The modernization plan shall enhance curricular programs to make them relevant and responsive to the needs of society and address the educational needs of communities. The plan shall also include a program for staff development as well as for the upgrading of services, facilities and equipment in the University.

The proposed modernization plan shall be submitted to the University's Board of Regents for their approval.

SEC. 7. *Tax Exemptions.* – The provisions of any general or special law to the contrary notwithstanding:

(a) All revenues and assets of the PNU used actually, directly and exclusively for educational purposes or in support thereof shall be exempt from all taxes and duties;

(b) Gifts and donations of real and personal properties of all kinds shall be exempt from the donor's tax and the same shall be considered as allowable deductions from the gross income of the donor, in accordance with the provisions of the National Internal Revenue Code of 1997, as amended: *Provided*, That the allowable deductions shall be equivalent to one hundred fifty percent (150%) of the value of such donation. Valuation of assistance other than money shall be based on the acquisition cost of the property. Such valuation shall take into consideration the depreciated value of property in case said property has been used;

(c) Importation of economic, technical, vocational, scientific, philosophical, historical and cultural books, supplies and materials duly certified by the Board, including scientific and educational computer and software equipment, shall be exempt from customs duties;

(d) The University shall only pay zero percent (0%) value-added tax for all transactions subject to this tax; and

(e) All academic monetary awards shall be exempt from taxes.

SEC. 8. *Appropriations.* – The amount of Two hundred fifty million pesos (P250,000,000.00) necessary to carry out the provisions of this Act is hereby appropriated entirely for capital outlay in addition to the current year's appropriations for the PNU.

For the succeeding five (5) years, the amount of One hundred million pesos (P100,000,000.00) shall be appropriated per year in addition to the annual appropriations for capital outlay of the PNU.

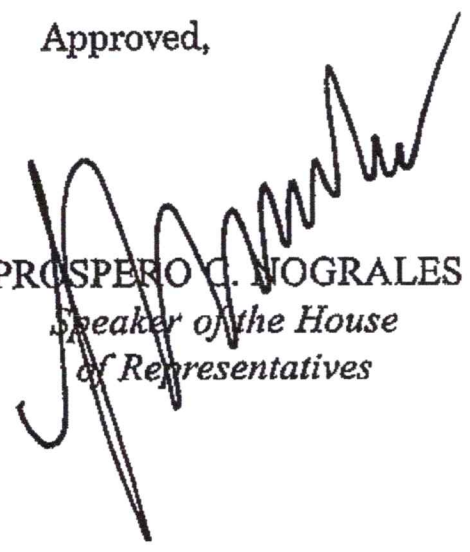
Thereafter, the amount necessary to sustain the program shall be included in the annual appropriations of the PNU.

SEC. 9. *Separability Clause.* – If any part, section or provision of this Act is held invalid or unconstitutional, other provisions not affected thereby shall remain in full force and effect.

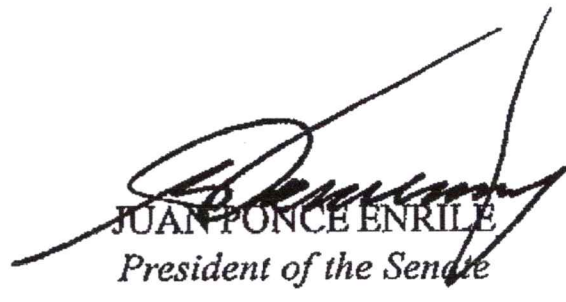
SEC. 10. *Repealing Clause.* – All laws, decrees, orders, rules and regulations or other issuances inconsistent with the provisions of this Act are hereby repealed, amended or modified accordingly.

SEC. 11. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved,



PROSPERO C. NOGRALES
*Speaker of the House
of Representatives*



JUAN PONCE ENRILE
President of the Senate

This Act which is a consolidation of Senate Bill No. 3157 and House Bill No. 6049 was finally passed by the Senate and the House of Representatives on April 27, 2009 and May 5, 2009, respectively.

Marilyn B. Barua-Yap
 MARILYN B. BARUA-YAP
 Secretary General
 House of Representatives

Emma Lirio-Reyes
 EMMA LIRIO-REYES
 Secretary of the Senate

Approved: JUN 30 2009

Gloria M. Arroyo
 GLORIA MACAPAGAL-ARROYO
 President of the Philippines



O



PGMA Hologram # 49442



Educating Science Teachers for All

Philippine Normal University

The National Center for Teacher Education

Training Workshop in Inclusive Science Education for Linguistic and Cultural Diversity

REGISTRATION FEE

NO REGISTRATION FEE

VENUE:

ONLINE (VIA ZOOM VIDEO CONFERENCING)

TIME DURATION:

Synchronous: July 19, 20, 21, 22, 25, 27, Asynchronous [as per schedule with mentors: July 28-August 15], Closing Activity: August 16, 2022

Sub-Topics and Time Allotment for every topic (in hours)	Program Flow
Day 1: [1:00-5:00 PM] Opening Program: Keynote 1: Teacher Quality Plenary 1: Science Education Keynote 2: ESTA Program and the International Consortium	1:00-1:45 PM Opening Program 2:00-2:45 Keynote 1 2:45-3:30 Plenary 1 3:30-4:30 Keynote 2 4:30-5:00 Q&A
Day 2: [1:00-5:00 PM] Plenary 2: Language for Sciences AST 1: Diversity in Class AST 2: Conceptual Change	1:00-1:30 PM Preliminaries 1:30-2:30 Plenary 2 2:30-3:30 AST 1 3:30-4:30 AST 2 4:30-5:00 Q&A

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Day 3: [1:00-5:00 PM] Plenary 3: Contextualization • Culture for Sciences • Culture Integration AST 3: Acquisition of Science Capital in Chemistry	1:00-1:30 PM Preliminaries 1:30-3:30 Plenary 3 3:30-4:30 AST 3 4:30-5:00 Q&A
Day 4: [1:00-5:00 PM] Plenary 4: Indigenous Languages and proficiency in Language AST 4: Chemistry self-concepts: gender and culture, and the impact of chemistry self-concept on learning behavior AST 5: Technology Integration	1:00-1:30 PM Preliminaries 1:30-2:30 Plenary 4 2:30-3:30 AST 4 3:30-4:30 AST 5 4:30-5:00 Q&A
Day 5: [1:00-5:00 PM] Plenary 5: Other ESTA-Country Participants Experiences AST 6: Flipped Classroom Topic 1: Orientation to Lesson Exemplar (LE) Development Workshop • Agreements for Part 2: LE Development Workshop • Groupings for Consultation and Mentoring	1:00-1:30 PM Preliminaries 1:30-2:30 Plenary 5 2:30-3:30 AST 6 3:30-4:30 Topic 1 4:30-5:00 Q&A
Day 6: [1:00-5:00 PM] Science Educator Sharing 1: Chemistry Science Educator Sharing 2: Physics Science Educator Sharing 3: Biology Science Educator Sharing 4: Environmental Science	1:00-1:30 PM Preliminaries 1:30-4:00 Insights and Experiences 4:00-5:00 Q&A
Week 2 [Asynchronous] Lesson Exemplar Development	
Week 3 [Asynchronous] Lesson Exemplar Peer Review	

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Week 4 [Asynchronous] Lesson Exemplar Revision	
Week 5 Lesson Exemplar Presentation and Panel Critiquing	

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Training Workshop in Inclusive Science Education for Linguistic and Cultural Diversity

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TIME DURATION:

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SYLLABI OF THE TOPIC TO BE DISCUSSED

Oral Presentation Themes/Topics	Speakers and Moderators
Keynote 1: Teacher Quality This session will provide key discussion points on teacher quality. The aim is to provide teachers with an understanding of the extent of teacher quality to achieving quality education referenced to global themes such as the SDGs and national focus.	VPA Jennie V. Jocson Vice President for Academics, PNU-Manila
Plenary 1: Science Education This session will familiarize teachers with the general purposes of Science Education and the aims and goals of science education in the Philippines.	Prof. Marie Paz E. Morales ESTA-Phil-PNU Project Lead]
Keynote 2: ESTA Program and the International Consortium This session will focus on the description and nature of the international capacity building program for science teachers.	Prof. Sylvia Markic ESTA-Project Lead
Plenary 2: Language for Sciences	Moderator/Facilitator: Mr. Alfons Jayson O. Pelgone ESTA-Phil-PNU Team

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This session focuses on the rhetorical functions, syntactic constructions, and vocabulary frequently used in scientific discourse. In reviewing the language for Science, the participants will be directed to the aspects of language that can be highlighted in the module exemplars.

AST 1: Diversity in Class

This Academic Staff Tour engages participants through a thorough discussion of how to diagnose diversity in class. The session will familiarize participants on probable ways and activities to detect diversity and heterogeneity in class.

AST 2: Conceptual Change

This Academic Staff Tour engages participants through a thorough discussion of interest in science education as well as the conceptual change model. Part of the highlight of the session is the presentation of 'hooks' in teaching science which may be in the form of videos, puzzles and intriguing questions. The session is directed towards understanding how students coming from various socio-economic, cultural and language backgrounds bring with them a sense of conceptual understanding. Teacher knowledge on conceptual change allows science educators to provide engaging learning experiences to our science learners.

Plenary 3: Contextualization

This session leads the participants to acquire a deep understanding of the concept, background, and teaching-learning processes of contextualization. Included in the session is the development of one's epistemology of contextualization as the basis of one's praxis.

AST 3: Acquisition of Science Capital in Chemistry

This session focuses on identification of factors and drivers that encourage students to learn Chemistry, and at large, Science. The outcomes of the research article authored by Rüschenpöhler and Markic in 2019 to emphasize the role of families, peers and significant

Dr. Ruth A. Alido
ESTA-Phil-PNU Team

Mr. Alfons Jayson O. Pelgone
ESTA-Phil-PNU Team

Dr. Leah Amor S. Cortez
ESTA-Project Team

Moderator/Facilitator: **Dr. Crist John M. Pastor**
ESTA-Phil-PNU Team

Dr. Zenaida Q. Reyes
ESTA-Phil-PNU Team

Dr. Crist John M. Pastor
ESTA-Phil-PNU Team

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others in the development of positive attitudes and increased engagement of students to science.	
Plenary 4: Indigenous Languages and proficiency in Language This session will disseminate how technology can be used to preserve the language of the indigenous people. AST 4: Chemistry self-concepts: gender and culture, and the impact of chemistry self-concept on learning behavior This session focuses on students' chemistry self-concept with respect to their cultural background and gender. The session also highlights the students thinking about science and scientists and the colonial portrayal of Filipinos.] AST 5: Technology Integration This session focuses on the nature, significance and methods of technology integration. The session also highlights some frameworks used in technology interaction inside a science classroom.	Dr. Rochelle Irene G. Lucas ESTA-Phil-DLSU Team Dr. Arlyne C. Marasigan ESTA-Phil-PNU Team Mr. Ruel A. Avilla ESTA-Project Team Moderator/Facilitator: Dr. Ruth A. Alido ESTA-Phil-PNU Team
Plenary 5: Other ESTA-Country Participants Experiences This session will primarily focus on the sharing of other partner countries/universities on managing diversity and heterogeneity in science classes. AST 6: Flipped Classroom This session presents the theoretical underpinnings and instructional processes implemented in science teaching through flipped classroom approach (FCA). It also highlights the instructional technologies and significant implications of FCA as utilized in science teaching based on current empirical studies. Similarly, this session provides insights on how FCA is appropriately applicable in teaching science in the	Dr. Marika Kapanadze ESTA-Georgia Team Dr. Lydia S. Roleda ESTA-Phil-DLSU Team Dr. Brando C. Palomar ESTA-Project Team Moderator/Facilitator: Mr. Ruel A. Avilla ESTA-Phil-PNU Team

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context of the pandemic and post-pandemic experiences. Topic 1: Orientation to Lesson Exemplar (LE) Development Workshop This session aims to present the features of the instructional design of the Lesson Exemplar anchored on the developed frameworks and models. The session also intends to familiarize the participants on the implementing guidelines on how to develop Lesson Exemplars influenced by the aforementioned models, agreements, groupings and processes of consultation and mentoring.	
This session will primarily focus on the sharing of Science Teacher Educators on developing their courses using the framework.	Chemistry: Prof. Nelson Garcia Physics 1: Prof. Amber Dea Marie V. Peguit-Opeda Physics 2: Jayson L. De Vera Biology 1: Dr. Marie Grace S. Cabansag Biology 2: Dr. Brian M. Limson Moderator/Facilitator: Dr. Brando C. Palomar ESTA-Phil-PNU Team
Lesson Exemplar Development The session will focus on facilitating participants for them to be able to draft and craft their Lesson Exemplars. Informal sharing may be within and across groups and disciplines to exact the finest Lesson Exemplar for a particular science lesson or topic.	ESTA-Phil-PNU Team PNU Science Educators
Lesson Exemplar Peer Review In this session, crafted and designed Lesson Exemplars for science lessons or topics will be subjected to peer review (by fellow participants) to help the developers provide varied perspectives while peers assess their Lesson Exemplars. This session aims to provide constructive remarks for the improvement or enhancement of developed Lesson Exemplars and to determine alignment of designed Lesson Exemplars to the aforementioned models and frameworks.	ESTA-Phil-PNU Team PNU Science Educators

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Lesson Exemplar Revision In this session, developers of Lesson Exemplars will engage in revising their products based on the comments and suggestions of their peers. This is a prerequisite to the next activity that will focus on presentation of the revised Lesson Exemplars to the ESTA-Philippines-PNU Team and critiquing of the panel of evaluators.	ESTA-Phil-PNU Team PNU Science Educators
Lesson Exemplar Presentation and Panel Critiquing In this session, crafted and designed Lesson Exemplars for science lessons or topics will be presented to the participants and experts. Critiquing will also be done to provide constructive remarks for the improvement or enhancement of presented Lesson Exemplars and to determine alignment of designed Lesson Exemplars to the aforementioned models and frameworks.	ESTA-Phil-PNU Team PNU Science Educators



Educating Science Teachers for All

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The National Center for Teacher Education

Training Workshop in Inclusive Science Education for Linguistic and Cultural Diversity

LIST OF SPEAKERS/RESOURCE PERSONS TOGETHER WITH THEIR EDUCATIONAL QUALIFICATIONS

Speakers/Resource Persons	Education Qualifications
Prof. Marie Paz E. Morales ESTA-Phil-PNU Project Lead	Doctor of Philosophy in Science Education at De La Salle University
Prof. Sylvia Markic ESTA-Project Lead	Dr. re. nat with summa cum laude at University of Education-Ludwigsburg
Dr. Ruth A. Alido ESTA-Phil-PNU Team	Doctor of Philosophy in Applied at Linguistics De La Salle University
Mr. Alfons Jayson O. Pelgone ESTA-Phil-PNU Team	Doctor of Philosophy in Science Education at Philippine Normal University (2017-Present)
Dr. Leah Amor S. Cortez ESTA-Project Team	Doctor of Philosophy in Biology at De La Salle University-Dasmarias
Dr. Zenaída Q. Reyes ESTA-Phil-PNU Team	Doctor of Philosophy in Philippine Studies at University of the Philippines
Dr. Crist John M. Pastor ESTA-Phil-PNU Team	Doctor of Philosophy in Biochemistry University of the Philippines
Dr. Rochelle Irene G. Lucas ESTA-Phil-DLSU Team	Doctor of Philosophy in Applied Linguistics at De La Salle University
Dr. Arlyne C. Marasigan ESTA-Phil-PNU Team	Doctor of Philosophy in Educational Leadership and Policy at Beijing Normal University
Mr. Ruel A. Avilla ESTA-Project Team	Master of Arts in Science Education with specialization in Chemistry at Philippine Normal University
Dr. Marika Kapanadze ESTA-Georgia Team	Doctor of Philosophy in Education at Ilia State University

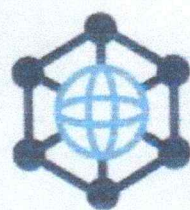


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Dr. Lydia S. Roleda ESTA-Phil-DLSU Team	Doctor of Philosophy in Physics at De La Salle University
Dr. Brando C. Palomar ESTA-Project Team	Doctor of Philosophy (Research Postgraduate Programme) at The Education University of Hong Kong
Prof. Nelson Garcia PNU-Manila	Doctor of Philosophy in Chemistry at the University of Santo Tomas
Prof. Amber Dea Marie V. Peguit-Opeda PNU-Manila	Master of Arts in Physics at Mindanao State University-Iligan Institute of Technology
Mr. Jayson L. De Vera PNU-Manila	Doctor of Philosophy in Science Education at Philippine Normal University (2017-Present)
Dr. Marie Grace S. Cabansag PNU-Manila	Doctor of Philosophy at Isabela State University
Dr. Brian M. Limson PNU-Manila	Doctor of Medicine at De La Salle Medical & Health Sciences Institute



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REGISTRATION FEE

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Synchronous: July 19, 20, 21, 22, 25, 27, Asynchronous [as per schedule with mentors: July 28-August 15], Closing Activity: August 16, 2022

PROGRAM

Sub-Topics and Time Allotment for every topic (in hours)	Program Flow	Oral Presentation Themes	Speakers and Moderators
Day 1: [1:00-5:00 PM]			
Opening Program:	1:00-1:45 PM Opening Program	Keynote 1: Teacher Quality This session will provide key discussion points on teacher quality. The aim is to provide teachers with an understanding of the extent of teacher quality to achieving quality education referenced to global themes such as the SDGs and national focus.	VPA Jennie V. Jocson Vice President for Academics, PNU-Manila
Keynote 1: Teacher Quality	2:00-2:45 1	Keynote	
Plenary 1: Science Education	2:45-3:30 1	Plenary	Prof. Marie Paz E. Morales ESTA-Phil-PNU Project Lead]
Keynote 2: ESTA Program and the International Consortium	3:30-4:30 2	Keynote	
	4:30-5:00	Q&A	Prof. Sylvia Markic ESTA-Project Lead
		Plenary 1: Science Education This session will familiarize teachers with the general purposes of Science Education and the aims and	Moderator/Facilitator: Mr. Alfons Jayson O. Pelgone

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		goals of science education in the Philippines. Keynote 2: ESTA Program and the International Consortium This session will focus on the description and nature of the international capacity building program for science teachers.	ESTA-Phil-PNU Team
Day 2: [1:00-5:00 PM] Plenary 2: Language for Sciences AST 1: Diversity in Class AST 2: Conceptual Change	1:00-1:30 PM Preliminaries 1:30-2:30 Plenary 2 2:30-3:30 AST 1 3:30-4:30 AST 2 4:30-5:00 Q&A	Plenary 2: Language for Sciences This session focuses on the rhetorical functions, syntactic constructions, and vocabulary frequently used in scientific discourse. In reviewing the language for Science, the participants will be directed to the aspects of language that can be highlighted in the module exemplars. AST 1: Diversity in Class This Academic Staff Tour engages participants through a thorough discussion of how to diagnose diversity in class. The session will familiarize participants on probable ways and activities to detect diversity and heterogeneity in class. AST 2: Conceptual Change	Dr. Ruth A. Alido ESTA-Phil-PNU Team Mr. Alfons Jayson O. Pelgone ESTA-Phil-PNU Team Dr. Leah Amor S. Cortez ESTA-Project Team Moderator/Facilitator: Dr. Crist John M. Pastor ESTA-Phil-PNU Team

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This Academic Staff Tour engages participants through a thorough discussion of interest in science education as well as the conceptual change model. Part of the highlight of the session is the presentation of 'hooks' in teaching science which may be in the form of videos, puzzles and intriguing questions. The session is directed towards understanding how students coming from various socio-economic, cultural and language backgrounds bring with them a sense of conceptual understanding. Teacher knowledge on conceptual change allows science educators to provide engaging learning experiences to our science learners.

Day 3: [1:00-5:00 PM]

Plenary 3:

Contextualization

- Culture for Sciences
- Culture Integration

AST 3: Acquisition of Science Capital in Chemistry

1:00-1:30 PM
Preliminaries

1:30-3:30 Plenary
3
3:30-4:30 AST 3
4:30-5:00 Q&A

Plenary 3:

Contextualization

This session leads the participants to acquire a deep understanding of the concept, background, and teaching-learning processes of contextualization. Included in the session is the development of one's epistemology of

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		contextualization as the basis of one's praxis. AST 3: Acquisition of Science Capital in Chemistry This session focuses on identification of factors and drivers that encourage students to learn Chemistry, and at large, Science. The outcomes of the research article authored by Rüschenpöhler and Markic in 2019 to emphasize the role of families, peers and significant others in the development of positive attitudes and increased engagement of students to science.	
Day 4: [1:00-5:00 PM] Plenary 4: Indigenous Languages and proficiency in Language AST 4: Chemistry self-concepts: gender and culture, and the impact of chemistry self-concept on learning behavior AST 5: Technology Integration	1:00-1:30 PM Preliminaries 1:30-2:30 Plenary 4 2:30-3:30 AST 4 3:30-4:30 AST 5 4:30-5:00 Q&A	Plenary 4: Indigenous Languages and proficiency in Language This session will disseminate how technology can be used to preserve the language of the indigenous people. AST 4: Chemistry self-concepts: gender and culture, and the impact of chemistry self-concept on learning behavior This session focuses on students' chemistry self-concept with respect to their cultural background and gender. The session also	Dr. Rochelle Irene G. Lucas ESTA-Phil-DLSU Team Dr. Arlyne C. Marasigan ESTA-Phil-PNU Team Mr. Ruel A. Avilla ESTA-Project Team Moderator/Facilitator: Dr. Ruth A. Alido ESTA-Phil-PNU Team

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		highlights the students thinking about science and scientists and the colonial portrayal of Filipinos.] AST 5: Technology Integration This session focuses on the nature, significance and methods of technology integration. The session also highlights some frameworks used in technology interaction inside a science classroom.	
Day 5: [1:00-5:00 PM] Plenary 5: Other ESTA-Country Participants Experiences AST 6: Flipped Classroom Topic 1: Orientation to Lesson Exemplar (LE) Development Workshop • Agreements for Part 2: LE Development Workshop • Groupings for Consultation and Mentoring	1:00-1:30 PM Preliminaries 1:30-2:30 Plenary 5 2:30-3:30 AST 6 3:30-4:30 Topic 1 4:30-5:00 Q&A	Plenary 5: Other ESTA-Country Participants Experiences This session will primarily focus on the sharing of other partner countries/universities on managing diversity and heterogeneity in science classes. AST 6: Flipped Classroom This session presents the theoretical underpinnings and instructional processes implemented in science teaching through flipped classroom approach (FCA). It also highlights the instructional technologies and significant implications	Dr. Marika Kapanadze ESTA-Georgia Team Dr. Lydia S. Roleda ESTA-Phil-DLSU Team Dr. Brando C. Palomar ESTA-Project Team Moderator/Facilitator: Mr. Ruel A. Avilla ESTA-Phil-PNU Team

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of FCA as utilized in science teaching based on current empirical studies. Similarly, this session provides insights on how FCA is appropriately applicable in teaching science in the context of the pandemic and post-pandemic experiences.

Topic 1: Orientation to Lesson Exemplar (LE)

Development Workshop

This session aims to present the features of the instructional design of the Lesson Exemplar anchored on the developed frameworks and models. The session also intends to familiarize the participants on the implementing guidelines on how to develop Lesson Exemplars influenced by the aforementioned models, agreements, groupings and processes of consultation and mentoring.

Day 6: [1:00-5:00 PM]

Science Educator Sharing

1: Chemistry

Science Educator Sharing

2: Physics

Science Educator Sharing

3: Biology

Science Educator Sharing

4: Environmental Science

1:00-1:30 PM
Preliminaries

1:30-4:00 Insights
and Experiences

4:00-5:00 Q&A

This session will primarily focus on the sharing of Science Teacher Educators on developing their courses using the framework.

Chemistry: Prof. Nelson Garcia

Physics 1: Prof. Amber Dea Marie V. Peguit-Opeda

Physics 2: Jayson L. De Vera

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			Biology 1: Dr. Marie Grace S. Cabansag Biology 2: Dr. Brian M. Limson Moderator/Facilitator: Dr. Brando C. Palomar ESTA-Phil-PNU Team
Week 2 [Asynchronous] Lesson Exemplar Development		Lesson Development The session will focus on facilitating participants for them to be able to draft and craft their Lesson Exemplars. Informal sharing may be within and across groups and disciplines to exact the finest Lesson Exemplar for a particular science lesson or topic.	ESTA-Phil-PNU Team PNU Science Educators
Week 3 [Asynchronous] Lesson Exemplar Peer Review		Lesson Exemplar Peer Review In this session, crafted and designed Lesson Exemplars for science lessons or topics will be subjected to peer review (by fellow participants) to help the developers provide varied perspectives while peers assess their Lesson Exemplars. This session aims to provide constructive remarks for the improvement or enhancement of developed	ESTA-Phil-PNU Team PNU Science Educators

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		Lesson Exemplars and to determine alignment of designed Lesson Exemplars to the aforementioned models and frameworks.	
Week 4 [Asynchronous] Lesson Exemplar Revision		Lesson Exemplar Revision In this session, developers of Lesson Exemplars will engage in revising their products based on the comments and suggestions of their peers. This is a prerequisite to the next activity that will focus on presentation of the revised Lesson Exemplars to the ESTA-Philippines-PNU Team and critiquing of the panel of evaluators.	ESTA-Phil-PNU Team PNU Science Educators
Week 5 Lesson Exemplar Presentation and Panel Critiquing		Lesson Exemplar Presentation and Panel Critiquing In this session, crafted and designed Lesson Exemplars for science lessons or topics will be presented to the participants and experts. Critiquing will also be done to provide constructive remarks for the improvement or enhancement of presented Lesson Exemplars and to determine alignment of designed Lesson Exemplars to the aforementioned models and frameworks.	ESTA-Phil-PNU Team PNU Science Educators

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