

AMGS Cross Mentoring Research Activity 2017-2018

Syllabus

I . Mentor

1. Personal Information

Name	Mr. Benito A. Baje
Mobile Number	+63-9953625080
School or Institute	Philippine Science High School-Central Visayas Campus
E-mail	babaje@cvisc.pshs.edu.ph
Major	Physics; Materials Science

2. Education

	Year	Name of University	Major	Degree	Nation
Bachelor's degree	1999-2003	Mindanao State University- Iligan Institute of Technology	Physics	BS Physics	Philippines
Master's degree	2017-present	University of the Visayas-Main Campus	Innovation and Product Development	MS in Management Engineering	Philippines

3. Experiences

Duration	Position	Institute or University
2013 to date	Science Specialist III	Philippine Science High School-Central Visayas Campus, Cebu Philippines
2010-2012	Laboratory Researcher/Apprentice	Condensed Matter Physics Laboratory, High Temperature Superconductor Group, National Institute of Physics- University of the Philippines in Diliman, Quezon City Philippines
2005- 2012	University Instructor 1	Caraga State University- Main Campus; Butuan City Philippines

4. Honors and Awards

Year	Title	Remarks
2017	Research Grant, INNOBOX: Search for the Most Innovative Teaching and Learning Resources in Science	Department of Science and Technology-Science Education Institute, Manila, Philippines
2014	Best Oral Research Presenter in the Field Nanotechnology and Bioengineering, Philippine Institute of Microscopists Annual Scientific Meeting and Conference	Advanced Device and Material Testing Laboratory, Department of Science and Technology, Manila, Philippines

5. Professional Societies

- A. Philippine Institute of Microscopist, Inc. (Member)
- B. Samahang Pisika ng Visayas and Mindanao (Member), A National Physics Community Group in the Philippines

II. Syllabus

1. Course Title & Criteria

Course Title	Physics Innovations for Humanity
Criteria	<input type="checkbox"/> Biology & Applied Biology
	<input type="checkbox"/> Chemistry
	<input type="checkbox"/> Energy & Environmental Science
	<input type="checkbox"/> Integrated Science
	<input type="checkbox"/> Medicinal Science
	<input type="checkbox"/> Nano Science
	<input checked="" type="checkbox"/> Physics
	<input checked="" type="checkbox"/> Others (EnginInnovations)

2. Course Objectives & Description

This course aims to encourage mentees to create simple, and practical research-based innovations. This course is also designed to develop the empathetic skills of students to understand the needs of the people and the heart to use their inventive capabilities to benefit the greater community through sound scientific design and valid physics/engineering principles.

At the end of the course, the mentees will be able to accomplish the following:

- A. Identify and formulate research topic regarding;
- B. Conduct their proposed research;
- C. Write scientific paper/report of their study

3. Required Textbook or papers:

- A. Journals/papers/books will be posted later

4. Final Outcome

Mid-term Report	[] Due date:
Final Report	[] Due date:
Research Article for APEC Youth Scientist Journal	[] Due date:

5. Schedule

Week	Topics and Activities	Assignments & Other Instructions
Week 1	<ul style="list-style-type: none"> ➤ Reading Assignment on how to write research a proposal ➤ Look for a possible research topic with at least five (5) review of related literature (RRL) from journals and books for each topic 	Research topic submission with at least 250 words and at most 500 words “Statement of the problem”
Week 2	<ul style="list-style-type: none"> ➤ Research Topic critiquing ➤ Part 1: Research Proposal Writing with proper citations -Background of the study -Objectives (General and Specific) -Significance of the Study -Scope and Limitation 	-Research Proposal Submission (Draft 1)
Week 3	<ul style="list-style-type: none"> ➤ Online Critiquing and feedbacking ➤ Part 2: Research Proposal Writing -Methodology including the possible statistical tools/analysis -References/Proper citations 	Research Proposal Submission (Draft 2)
Week 4	<ul style="list-style-type: none"> ➤ Consolidate Part I and Part II of the research proposal including the mentor suggestions and comments 	Project proposal submission (Part 1 and Part 2 simultaneously)
Week 5	<ul style="list-style-type: none"> ➤ Gathering of Necessary Materials 	Updates on necessary materials and needed equipment for experimentation
Week 6	Experimentation Proper	Updates and feedbacking
Week 7	Experimentation Proper	Updates and Feedbacking
Week 8	Data Collection and Analysis	Updates and Feedbacking
Week 9	Data Collection and Analysis	Update and Feedbacking
Week 10	Data Collection and Analysis	Updates and Feedbacking
Week 11~15	Guide mentees to write Research article for APEC Youth Scientist Journal	-
	Mentee should submit their research article to AMGS admin. team	-