



Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF BATAAN

DIVISION MEMORANDUM

No. 078 s. 2025

FEB 12 2025

**PARTICIPATION IN THE BATAAN PENINSULA SCIENCE AND
ENGINEERING CONGRESS 2025 (BPSEC)**

To: Chief Education Supervisors
Education Program Supervisors
Public Schools District Supervisors
Public and Private Secondary School Heads
Science Coordinators and Department Heads
All Other Concerned

1. The Schools Division Office of Bataan, in partnership with the Philippine Institute of Chemical Engineers - Bataan Chapter (PICHE-BC), invites all Junior High School (JHS) and Senior High School (SHS) students and teachers to participate in the Bataan Peninsula Science and Engineering Congress 2025 (BPSEC) on March 15 and 22, 2025, at The Peninsula School Auditorium, Barangay Alangan, Limay, Bataan.

2. This congress aims to ignite students' passion for science and engineering by providing valuable insights into career opportunities in these fields and promoting academic excellence through competition. The two-day event will include the following key activities:

- a) **Science and Engineering Career Orientation** – A session designed to provide students with knowledge about the expectations and opportunities in various science and engineering fields, with a special emphasis on chemical engineering. The goal is to inspire students to pursue careers in science-related disciplines; and
- b) **Bataan Peninsula Science Bowl** – A competitive event that recognizes the top-performing high school students in Mathematics, Earth and Space Science, Biology, Chemistry, and Physics.

3. School heads are encouraged to endorse and facilitate the participation of their students in this congress. Enclosed are the registration guidelines and contest mechanics for reference.

4. The participation of teachers and students shall be subject to the no-disruption-of classes policy stipulated in DO No. 9, s. 2005 titled Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith and the Policy on Off-campus Activities stated in DO No. 66, s. 2017, and DO 19, s. 2008 titled Implementation of No Collection Policy in All Public Elementary and Secondary Schools.



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5. Expenses related to the BPSEC participation may be charged to the School Maintenance and Other Operating Expenses (MOOE) or other local funds, in accordance with existing accounting and auditing rules and regulations.

7. Immediate and wide dissemination of this Memorandum is earnestly desired


CAROLINA S. VIOLETA, EdD, CESO V
Schools Division Superintendent 

Encs.: as stated
Reference: None

To be indicated in the Perpetual Index
Under the following subjects:

CAREER ORIENTATION
SCIENCE CONGRESS

CHEMICAL ENGINEER
SCIENCE BOWL

CONGRESS


February 5, 2025



INTRODUCTION

The **Philippine Institute of Chemical Engineers - Bataan Chapter (PICHE-BC)**, will be spearheading the **Bataan Peninsula Science and Engineering Congress 2025 (BPSEC)** on the 15th and 22nd of March 2025 at The Peninsula School Auditorium, Barangay Alangan, Limay, Bataan. We strongly believe that it is vital to nurture the Filipino youth and provide them guidance towards future careers that will impact the Philippines global competitiveness. With this in mind, the congress aims to ignite a passion for science and engineering among Bataan's top high school students. In PICHE-BC, we are dedicated to equipping them with the knowledge and inspiration needed to realize their potential and make significant contributions to nation-building, driving future innovation and progress in the Philippines.

The said congress will be divided into two days both of which has two major events, details are as follow:

BPSEC JUNIOR LEVEL

Day 1: 15th of March 2025

Morning Session

1. **Exploring STEM: JHS Career Orientation**, which aims to provide Junior High School Students guidance regarding the expectations and opportunities in choosing STEM Track for Senior High School that will entice the students in considering science-related fields as their future careers.

Afternoon Session

2. **The Bataan Peninsula Science Bowl - Junior Division**, which aims to recognize the province's best junior high school students in the fields of Mathematics and General Sciences which include Earth and Space Science, Biology, Chemistry, and Physics.

BPSEC SENIOR LEVEL

Day 2: 22nd of March 2025

Morning Session

1. **Engineering the Future: SHS Career Orientation**, which aims to provide Senior High School Students substantial information regarding the expectations and opportunities in different science and engineering fields, more particularly chemical engineering, that will reinforce the students' motivation in considering science-related fields as their future careers.

Afternoon Session

2. **The Bataan Peninsula Science Bowl - Senior Division**, which aims to recognize the province's best senior high school students in various fields of Science (Biology, Physics and Chemistry), Technology, Engineering and Mathematics.



REGISTRATION

1. All Junior and Senior High Schools within Bataan are invited to the Congress.
2. For both Career Orientations, schools may send at most five (5) interested students to attend informative educational talks from highly esteemed professionals in the field of science and engineering. Note that no registration fee shall be collected from the participants. Students may bring their own snacks and lunch during the event. Both orientations will start at 08:00 AM at The Peninsula School Auditorium. To participate, the school shall submit the following information to the BPSEC 2025 contact person through email on or before **February 22, 2025**. You may also register by scanning the QR code provided below.

<p>Name of School:</p> <p>Full Name of Career Orientation Participants and Grade Levels:</p> <ol style="list-style-type: none">1.2.3.4.5. <p>Primary Contact Person: Landline Phone: Mobile Phone: Email Address:</p> <p>BPSEC 2025 Coordinator: Amir Macatangay 09542356377 or thru piche.bataanchapter@gmail.com</p>	<p>OR</p> <p>Scan the following QR Code to access Registration Form.</p>  <p>Registration to the BPSEC 2025 Career Orientation for Junior High Schools https://forms.gle/KkfBC9zehp1f35du6</p>  <p>Registration to the BPSEC 2025 Career Orientation for Senior High Schools https://forms.gle/33ZSvG3Q3DTgeAhi6</p>
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3. For both of the Junior and Senior Science Bowl, all schools in Bataan are also invited to join.

4. Each school shall send a team of three (3) students per school, composed of Grade 9 and/or 10 students. At most two (2) coaches may accompany the participating students.
5. The combination of representatives' grade levels in each division is at the discretion of the participating schools.
6. To participate, the school shall submit the following information to the BPSEC 2025 contact person through email on or before **February 22, 2025**. You may also register by scanning the QR code provided below.

<p>Name of School: Name of Competing Team:</p> <p>Full Names of Participants and Grade Levels: 1. 2. 3.</p> <p>Full Names of Substitutes and Grade Levels: 1. 2.</p> <p>Full Names of Coaches (two maximum) 1. 2.</p> <p>Contact Information (for follow-through communication)</p> <p>Primary Contact Person: Landline Phone: Mobile Phone: Email Address:</p> <p style="text-align: center;">BPSEC 2025 Coordinator: Amir Macatangay 09542356377 or thru piche.bataanchapter@gmail.com</p>	<p>OR</p>  <p>Registration to the BPSEC 2025 Science Bowl Junior Division https://forms.gle/sEDENiRpz4csN6RF6</p>  <p>Registration to the BPSEC 2025 Science Bowl Senior Division https://forms.gle/efbZbXjKp2SXagKE7</p>
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5. No registration fee shall be collected from the participating teams. Students and coaches may bring their own snacks and lunch for the entirety of the event.
6. All delegates are requested to arrive on or before the start of the Quiz Bowl proper. Participants who came during the elimination round may still participate in the remaining questions; however, previously read questions will not be repeated.
7. All Quiz Bowl participating students shall bring the following:
 - Latest school Identification card (or any proof of enrollment)
 - Black ballpen
 - Pencil, sharpener, and eraser

- Non-programmable scientific calculator (refer to this [link](#) for list of non-programmable scientific calculators)

Participants are encouraged to bring their own water bottles. Designated water dispensers can be found along the venue. Students must also be in their school uniform during the event for proper identification.



Introduction

Since its inception in 2008 as the PIChE-BC Whiz Quiz, the Bataan Peninsula Science Bowl has evolved significantly. Initially, it paired top high school students with chemical engineers in a battle of wits. Following the success of BPSEC 2024, the event has expanded to recognize the best students from both Junior and Senior High Schools in various fields of science, engineering, and mathematics, according to their level of study.

This year, the competition introduces more challenging questions to push students to their limits. Junior High School students across Bataan will compete in the quiz bowl, and a special scoring system will be implemented in the final rounds to foster teamwork and decision-making skills. This system encourages participants to take calculated risks, enhancing their ability to weigh risks and make sound decisions under pressure.

Winners will be recognized not only for their academic excellence but also for their ability to perform under pressure. The Bataan Peninsula Science Bowl continues to grow, providing a platform for young minds to showcase their talents and develop crucial skills for their future careers.

Contest Mechanics

This competition is for all junior and senior high school students, with each participating school having a team composed of three primary contestants, with two substitutes (optional) which can be a combination of Grade 9 and/or Grade 10 for Junior Division and Grade 11 and/or Grade 12 for Senior Division Category. Top 5 schools from the elimination round will be recognized and proceed to the final round.

For both divisions, the same general mechanics shall be followed, unless specified otherwise:

ELIMINATION ROUND

1. The elimination round shall consist of three categories: Easy, Average, and Difficult.
2. The scoring system will be as follows:

JUNIOR DIVISION			
Category	No. of Items	Time Limit	Points
Easy	10	15 secs	2
Average	10	30 secs	3
Difficult	5	60 secs	5
SENIOR DIVISION			
Category	No. of Items	Time Limit	Points
Easy	10	15 secs	2
Average	10	60 secs	3
Difficult	5	90 secs	5

3. The questions will be flashed on the screen and shall be read by the quizmaster twice, after which he/she gives the GO signal. The timer starts when the quizmaster gives the GO signal.
4. Contestants may begin solving as soon as they wish. ALL FINAL ANSWERS must be ENCIRCLED and should be written on their boards within the allotted time. Ushers assigned to each team will enforce time limit and confirm if the team gets the correct answer, by which he/she will raise the team's number to count their points.
5. For multiple-choice and identification questions, the teams must write their answers in CAPITAL LETTERS. For identification questions, incomplete and/or misspelled answers shall be considered incorrect.
6. For problem-solving questions, the teams must write their answers accurately up to the specified number of decimal places together with the appropriate unit. Otherwise, rules on significant digits shall be applied.
7. Use of calculators shall only be allowed during the difficult round.
8. Any complaint, query, or protest regarding a particular question can only be made by the official contestants and their respective coaches and should be done before the reading of the next question.
9. An announcement allowing substitution of contestants will be done after every round.
10. The decision of the panel of judges shall be final and irrevocable.
11. Finally, at the end of each round of categories, the cumulative score of each team shall be computed and announced. The five teams garnering the highest overall scores will proceed to the final round.

FINAL ROUND

- The Final Round consists of three categories: Easy, Average, and Difficult. A predetermined number of questions with a special scoring system shall also be distributed across the three categories; these questions shall be labelled as Easy Plus, Average Plus, or Difficult Plus. The scores for all participating teams shall be reset to zero at the start of this round.
- The scoring system will be as follows:

JUNIOR DIVISION						
Category	Subtype	No. of Items	Time Limit	Points		
				Correct Answer	No Answer	Wrong Answer
Easy	Regular	5	10 secs	+3	0	0
	Special (Easy Plus)	3	15 secs	+4	0	-2
Average	Regular	7	30 secs	+5	0	0
	Special (Average Plus)	3	40 secs	+6	0	-3
Difficult	Regular	3	60 secs	10	0	0
	Special (Difficult Plus)	2	90 secs	+12	0	-6

SENIOR DIVISION						
Category	Subtype	No. of Items	Time Limit	Points		
				Correct Answer	No Answer	Wrong Answer
Easy	Regular	5	10 secs	+3	0	0
	Special (Easy Plus)	3	15 secs	+4	0	-2
Average	Regular	7	30 secs	+5	0	0
	Special (Average Plus)	3	60 secs	+6	0	-3
Difficult	Regular	3	60 secs	+10	0	0
	Special (Difficult Plus)	2	100 secs	+12	0	-6

To elaborate, there will be regular questions where teams can get points if they answer it correctly. However, for the Special Questions, a point system will be administered wherein teams can get higher points if they answer correctly but will lose points if incorrect. They may also opt to not answer the special questions, however there will be a standard minus 1. This should encourage the teams to take necessary risks and perform strategic decision-making to help them gain advantage in the competition.

- The question will be flashed on the screen and shall be read by the quizmaster twice, after which he/she gives the GO signal. The timer starts when the quizmaster gives the GO signal.
- Contestants may begin solving as soon as they wish. ALL FINAL ANSWERS should be ENCIRCLED and written on their boards within the allotted time. Ushers assigned to each team will

enforce time limit and confirm if the team gets the correct answer, by which he/she will raise the team's number to count their points.

5. For multiple-choice and identification questions, the teams must write their answers in CAPITAL LETTERS. For identification questions, incomplete and/or misspelled answers will be considered wrong.

6. For problem-solving questions, the teams must write their answers accurately up to the specified number of decimal places together with the appropriate unit. Otherwise, rules on significant digits shall be applied.

7. Use of calculators will only be allowed during the difficult round.

8. Any complaint, query, or protest regarding a particular question can only be made by the official contestants and their respective coaches and should be done before the reading of the next question.

9. An announcement allowing substitution of contestants will be done after every round.

10. The decision of the panel of judges shall be final and irrevocable.

11. At the end of each phase, the cumulative score of each team will be computed and announced.

12. Ranking will solely be based on the Final Round results. The team with the highest cumulative scores will be declared as the Champion. The next two top-scoring teams will be declared as 1st and 2nd runners-up respectively.

13. In the case of a tie at the end of the last phase, a tie breaker will immediately ensue and will be sudden death in nature. Average to difficult type questions will be asked until one team gains an advantage in score over the other.

AWARDS

1. All participating students and coaches will receive certificates of participation. Separate tokens of appreciation shall be given to all final round participants.

2. The winning teams for the both of the Quiz Bowls will receive the following prizes.

Champion Php 5,000 + gold medals and certificates of excellence for the students + certificate of recognition for the coaches + trophy for the school

First Runner Up Php 3,000 + silver medals and certificates of excellence for the students + certificate of recognition for the coaches + trophy for the school

Second Runner Up Php 1,000 + bronze medals and certificates of excellence for the students + certificate of recognition for the coaches + trophy for the school

DETAILED COVERAGE

EARTH AND SPACE SCIENCE	Rocks and Minerals Plate Tectonics Earthquakes and Volcanoes Geologic Time Atmosphere	Weather and Climate The Sun-Earth-Moon System The Solar System Beyond the Solar System
BIOLOGY	Basic Biochemistry Cell Theory, Structure and Function Cell Respiration and Photosynthesis Mitosis and Meiosis	Genetics and Heredity Evolution and Diversity of Plants Evolution and Diversity of Animals Human Body Systems
CHEMISTRY	Atoms, Molecules, and Ions Quantum Theory Electronic Structure of Atoms The Periodic Table of Elements Reaction Types and Stoichiometry	Chemical Bonding Solids, Liquids, and Gases Solutions Thermodynamics
PHYSICS	Representations of Motion Forces and Accelerated Motion in One Dimension	Laws of Motion Work, Energy and Energy Conservation
MATHEMATICS	Sets and Real Number System Linear, Quadratic, and Rational Equations Polynomials and Rational Expressions	Logarithmic and Exponential Equation Basic Geometry Trigonometry

Additional Fields for the Senior Division

Contestants of the Senior Division are encouraged to familiarize themselves on the fields specified above, with the inclusion of the following subjects:

CHEMISTRY	Gas Laws, Properties of Materials, Organic and Inorganic Compounds, Intermolecular Forces, Basic Thermochemistry and Electrochemistry
BIOLOGY	Biological Molecules, Plant and Animal Organ Systems, and Energy Transformation
PHYSICS	Dimensional Analysis, Vectors, Kinematics and Projectile Motion; Momentum, Impulse and Collisions, Mechanical Waves and Sound, Basic Fluid Mechanics
MATHEMATICS <i>Pre-Calculus and Basic Calculus</i>	Analytic Geometry, Series and Mathematical Inductions, Limits and Continuity, Derivatives and Integration