

Co-hosted by ASEAN+3 Center for the Gifted in Science (ACGS)

& Korean Federation of Science Education Societies(KFSEC)

# The 2<sup>nd</sup> Global Online Science Camp

## : Pre-training for the 12<sup>th</sup> ASEAN+3 Student Camp

### Learning Together through Online Inquiry

We are pleased to announce that registration is now open for the **2nd Global Online Science Camp** sponsored by the Korean Federation of Science Education Societies & the Society of International Gifted in Science, and organized by ASEAN+3 Science Gifted Center.

The **2nd Global Online Science Camp** aims to enlighten science-gifted youth in Asia who has a great interest and talent in science through collaboration and inquiry-driven curated online learning experiences. We offer this opportunity to reinforce young science students to be high-achieving and contribute to the world in the future!

Participants are expected to experience the joy of scientific discovery while developing the ability to communicate scientific understanding and think critically to solve problems like scientists. Moreover, they will enhance the ability to integrate scientific knowledge and method to investigate and predict phenomena around them.

The **2nd Global Online Science Camp** will be held for approximately 7 weeks (tentatively August 27th ~ October 15th, 2022) on an online learning platform, Google Classroom, and Zoom. The program consists of various online activities such as individual pre-tasks, collaborative team tasks, and live online discussions and presentations. In addition, participants will gain an opportunity to build/enhance a global network through collaborating with science-gifted students from more than 10 countries/regions.

As we announced at the last BOD meeting (Nov. 25th, 2021), this **Global Online Science Camp** is a pre-training for the **12th ASEAN+3 Student Camp** which will be launched in January, 2023. The topics of the Global Online Science Camp will be related to the Student Camp.

**The registration will begin on August 1st and remain open until August 22nd.** If you have any questions, feel free to ask via e-mail(ggerc@cloud.snue.ac.kr).

Chairman of Global Online Science Camp  
Seoul National University of Education

Prof. *Soo-Young Lee*

# The 2<sup>nd</sup> Global Online Science Camp

## : Pre-training for the 12<sup>th</sup> ASEAN+3 Student Camp

### Learning Together through Online Inquiry

#### ○ Sponsored by :

- Society of International Gifted in Science
- Korean Federation of Science Education Societies

#### ○ Hosted/Organized by :

- ASEAN+3 Center for the Gifted in Science

#### ○ Camp Schedule :

- Online Activities : August 27<sup>th</sup> ~ October 15<sup>th</sup>, 2022  
(For a detailed schedule, please refer to Attachment 1)
- Live discussions and presentations via ZOOM will be held between 18:00~21:00 (KST, UTC+9)

#### ○ Structure :

- Online platform learning and live discussion
- ACGS Homepage(<http://www.acgs-web.org/>), Google Classroom, Zoom and LINE

#### ○ Target Participants :

- Gifted students in science (junior high school level, age between 13 and 15) from ASEAN+3 member countries, and partner countries
- individual participant or 2~4 members in a team
- Enthusiastic and creative middle school students who are inquisitive and able to communicate in English to participate enthusiastically in the Global Online Science Camp
- Participants in this Global Online Science Camp will be given priority to apply for the **12th ASEAN+3 Student Camp(January, 2023)**

#### ○ Registration:

- Due Date : August 1<sup>st</sup> ~ August 22<sup>nd</sup>, 2022
- Submit the application form at  
<https://forms.gle/HD9kK8ZEQdSqZdan9>
- Inquiry : [ggerc@cloud.snue.ac.kr](mailto:ggerc@cloud.snue.ac.kr)



○ **The 2<sup>nd</sup> Global Online Science Camp Main Theme and Sub Topics:**

- Main Theme: **Learning Together through Online Inquiry**
- Selective Topics: Participate in one of the following three sub topics
- Please refer to Attachment 2 and watch the YouTube introduction videos for details
- Check team formation requirement for each topic

Topic 1	Be the maker of the Goldberg machine: Creative reuse	
	YouTube	<a href="https://youtu.be/6V0twXfRq9o">https://youtu.be/6V0twXfRq9o</a>
	Participation	Individual
Topic 2	How do we know the temperature?	
	YouTube	<a href="https://youtu.be/LmewRI5pc-Y">https://youtu.be/LmewRI5pc-Y</a>
	Participation	Team (3 members in a team)
Topic 3	Humane researchers with pharmaceutical/biological expertise are urgently wanted!	
	YouTube	<a href="https://youtu.be/_GMq4Su9PQk">https://youtu.be/_GMq4Su9PQk</a>
	Participation	Team (2~4 members in a team)

○ **Participation Fee: Free**

- Must prepare the equipment you need for online learning  
(For example, webcam, headset, microphone, computer, etc.)
- In addition, there will be some materials you need to prepare by yourself during the camp  
(For example, empty plastic bottles, scrap papers, etc.)

○ **Official Language:** English (All lectures and discussions are conducted in English)

○ **Reminder:**

- Application can only be submitted online (<https://forms.gle/HD9kk8ZEqdSqZdan9>), and if you do not receive a confirmation email within 2 days, you must contact **ACGS** ([ggerc@cloud.snue.ac.kr](mailto:ggerc@cloud.snue.ac.kr)) to confirm the registration. It is your sole responsibility to confirm your registration status.
- Once the application is registered, the Google Class admission code will be sent to your e-mail (Only students with an admission code can enter Google Class and participate in the activities)
- All team members must submit the application form individually even if they have applied as a team.

## ○ Selection Criteria

- Considered based on self-introduction in the application, the number of applicants in each topic, and the number of applicants by country, etc.

## ○ Completion Criteria

- Except for special reasons (which must be reported in advance to **ACGS** ([ggerc@cloud.snue.ac.kr](mailto:ggerc@cloud.snue.ac.kr))), those who successfully attended and submitted all assignments will receive a certificate of completion.
- Upon successful completion of the 2<sup>nd</sup> Global Online Science Camp, participants will be given priority to apply for the **12th ASEAN+3 Student Camp**(January, 2023).

### \* Contact information :

ACGS coordinator: Ms. Hyesun Seo

Contact Email : [ggerc@cloud.snue.ac.kr](mailto:ggerc@cloud.snue.ac.kr)

ACGS Homepage : [www.acgs-web.org](http://www.acgs-web.org)

## Attachment 1. Schedule of Global Online Science Camp

Step	Date	Content
Preparation	Aug. 23 <sup>rd</sup> , 2022	The announcement of the list of participants
	Aug. 27 <sup>th</sup> , 2022	Orientation (Zoom or Youtube)
Stage 1	Aug. 27 <sup>th</sup> , 2022 ~ Sep. 2 <sup>nd</sup> , 2022	Watch a lecture and Self-study (Google Classroom)
	Sep. 17 <sup>th</sup> , 2022(Sat)	Hands-on Activities, Discussions & Feedback (Zoom) : Live streaming online classes
Stage 2	Sep. 18 <sup>th</sup> , 2022 ~ Sep. 30 <sup>th</sup> , 2022	Watch a lecture and Self-study (Google Classroom)
	Oct. 1 <sup>st</sup> , 2022(Sat)	Hands-on Activities, Discussions & Feedback (Zoom) : Live streaming online classes
Stage 3	Oct. 2 <sup>nd</sup> , 2022 ~ Oct. 14 <sup>th</sup> , 2022	Conduct final assignment : Team project (Google Classroom)
	Oct. 15 <sup>th</sup> , 2022(Sat)	Final Presentation and Feedback (Zoom) : Live streaming online classes  Outstanding Presentation Awards (Zoom) : Online Announcement
12 <sup>th</sup> ASEAN+3 Student Camp	January, 2023	Students who complete the 2 <sup>nd</sup> Global Online Science Camp will be given priority to apply for the 12th ASEAN+3 Student Camp

※ Detailed schedules may be changed and additional announcements will be made via email or Google Classroom

## Attachment 2. Detailed Research Topics

### Topic 1: Energy Transition Overview

**Topic** Be the maker of the Goldberg machine: Creative reuse

**Learning Objectives**

- Find and explain the various conservation and energy transform transfer in the Goldberg machine you made with creative reuse
- Make a Goldberg machine out of garbage(useless materials) that represent your country

**Course Description**

- The teacher will divide all participants into groups of three to four. Each team will mix with people from different countries.
- Each team member creates their own Goldberg machine with creative reuse through a given mission.
- Each team member produces a video clip about the Goldberg machine they have created. Then, all of the video clips will be merged into a final video.

**Instructor**

- Sejong Science High School Teacher Mr. Lee
- Daewon Girls' High School Teacher Mr. Kim

**YouTube** <https://youtu.be/6V0twXfRq9o> (Watch the lecture video through the link)

### Topic 2: Temperature and Charles' Law

**Topic** How do we know the temperature?

**Learning Objectives**

- Understand Charles' Law.
- Build a device to measure temperature.
- Measure different temperatures.

**Course Description**

The goal of the program is to create a device that measures temperature. Weather forecasts are important in all countries. After looking at the weather forecast, we consider several factors such as what to wear, whether to bring an umbrella and whether to wear a hat etc.

It is important to know whether it is sunny or rainy, but it is more important to know whether it is hot or cold. Temperature is a quantitative indicator of how hot or cold it is.

In this program, we're going to make a thermometer using Charles' law. Let's make a thermometer using the relationship between gas temperature

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and volume and measure the temperature where we live!

Let's measure the lowest and highest temperatures of the day, and measure the temperature at school, at home, and wherever you want!

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Instructor

- Seoul Science High School Teacher Ms. Park
- Seoul Science High School Teacher Mr. Choi

**YouTube**

<https://youtu.be/LmewRI5pc-Y> (Watch the lecture video through the link)

## Topic 3: Humans and Enzymes

**주제**

**Humane researchers with pharmaceutical/biological expertise are urgently wanted!**

Learning Objectives

- Students can identify and understand the principles and functions of enzymes.
- Students can use and apply enzymes in their way to creatively design digestive medication

Course Description

Some people desperately need the help of scientists like you because they cannot eat certain foods. In other words, they have difficulty digesting food. We need your biology expertise to solve this problem. Join 'International Biotech's excellent team to design innovative medicines.

Qualifications for the position: passion, curiosity, and humanism

Instructor

Changdeok Girls' High School Teacher Ms. Lim  
Buma Elementary School Teacher Mr. Kim

**YouTube**

[https://youtu.be/\\_GMq4Su9PQk](https://youtu.be/_GMq4Su9PQk) (Watch the lecture video through the link)

Please carefully select your choices after reading the summary of the above three topics and watching YouTube videos!