

2021

**S**cientific

**A**cademic

**G**lobal

**A**utonomous

▶ Research and Development Issues

To develop a curriculum for science education and nurture young leaders in the field of science and technology.

▶ Hypothesis

By establishing special subjects (“SAGAs”\*) and developing science education curriculum with “research project” at its core, young leaders of sagacity with SAGA (Scientific, Academic, Global, and Autonomous) mind can be nurtured.

Note: “SAGAs” is a coined word with the double meaning of the abbreviation of “Science”, “Academic”, “Global”, “Autonomous” and “research” or “*sagasu*” in Japanese

▶ Aim of research

The aim of this research is to establish special subjects that cultivate sagacity and develop science education curriculum based on the “research project” with a view to nurturing young leaders who can play crucial roles in the innovation of science and technology at the period of revolutionary social change.

*Super Science Highschool*

Hiroshima University High school



Research Plan in 2021 (fourth year)

Based on the interim assessment and annual report of the third year program, the following things are planned in 2021:

- S** Revise the annual plan and performance assessment for interdisciplinary learning and “research project”.
- A** Verify the effect of the programs conducted in cooperation with Hiroshima University, and identify its achievement and problems to be solved. The programs include support system for the “research project” and Hiroshima University Advanced Placement (AP), where high school students are allowed to take some of the liberal arts programs and take credits.
- G** Verify the effect of the scheme to encourage the students to work on the “research project” in cooperation with high school students in Korea and Thailand, and develop a program to gain support from teachers and graduate students from overseas at Hiroshima University.
- A** Revise “Hiroshima University (HU) Method” (a teachers' manual for research project), and publish “HU Method for Advanced Science course” and “HU Method for General Science course”.

Publication and dissemination of the research results

1. In cooperation with Hiroshima Prefecture Education Board, the school publishes e-journal on SAGAs lesson practice and its outcome
2. In cooperation with Hiroshima Prefecture Education Board, the school conducts open classes and discussions related to “SAGAs” subjects at educational conferences and “SSH day”.
3. The school announces and publishes the outcome of SAGAs and the “research project” in various educational conferences.
4. The school announces the outcome of SSH program at a conference organized by Hiroshima Prefecture Education Board.
5. All the students are ensured at least two presentation opportunities: “Interim Report Day” and “SSH Day”. On SSH Day, students at cooperative schools overseas and students at other high schools in Hiroshima also make presentations.
6. The school publishes an SSH leaflet and “Collection of academic papers on Research Project”, and distributes them to all the junior and senior high schools in Hiroshima, all the SSH schools, and cooperative schools overseas.
7. The school posts “SSH Reports” written by AS course students on the school website.
8. The school publishes a teachers' manual for the “research project”, “HU Method”, and distributes it to all the junior and senior high schools in Hiroshima, all SSH schools, and universities.

**Hiroshima University High school**

1-1 Midori 1-chome, Minami-ku, Hiroshima 734-0005 Japan

TEL (082) 251-0192 FAX (082) 252-0725

[https://www.hiroshima-u.ac.jp/fu\\_midori/](https://www.hiroshima-u.ac.jp/fu_midori/)



# Scientific

Based on the curriculum development by the third stage of SSH, develop interdisciplinary curriculum, which forms the basis of the “research project”.



Integrated Science: Science and Ethics



Science Project Tour



Pioneer Studies in Science: Field study in geology

# Academic

Under the support system from all the faculties and graduate courses at Hiroshima University, develop a “high school - university cooperation system” and advance the “research project”.



AS Statistics for Science



Integrated Science



Hiroshima University Advanced Placement

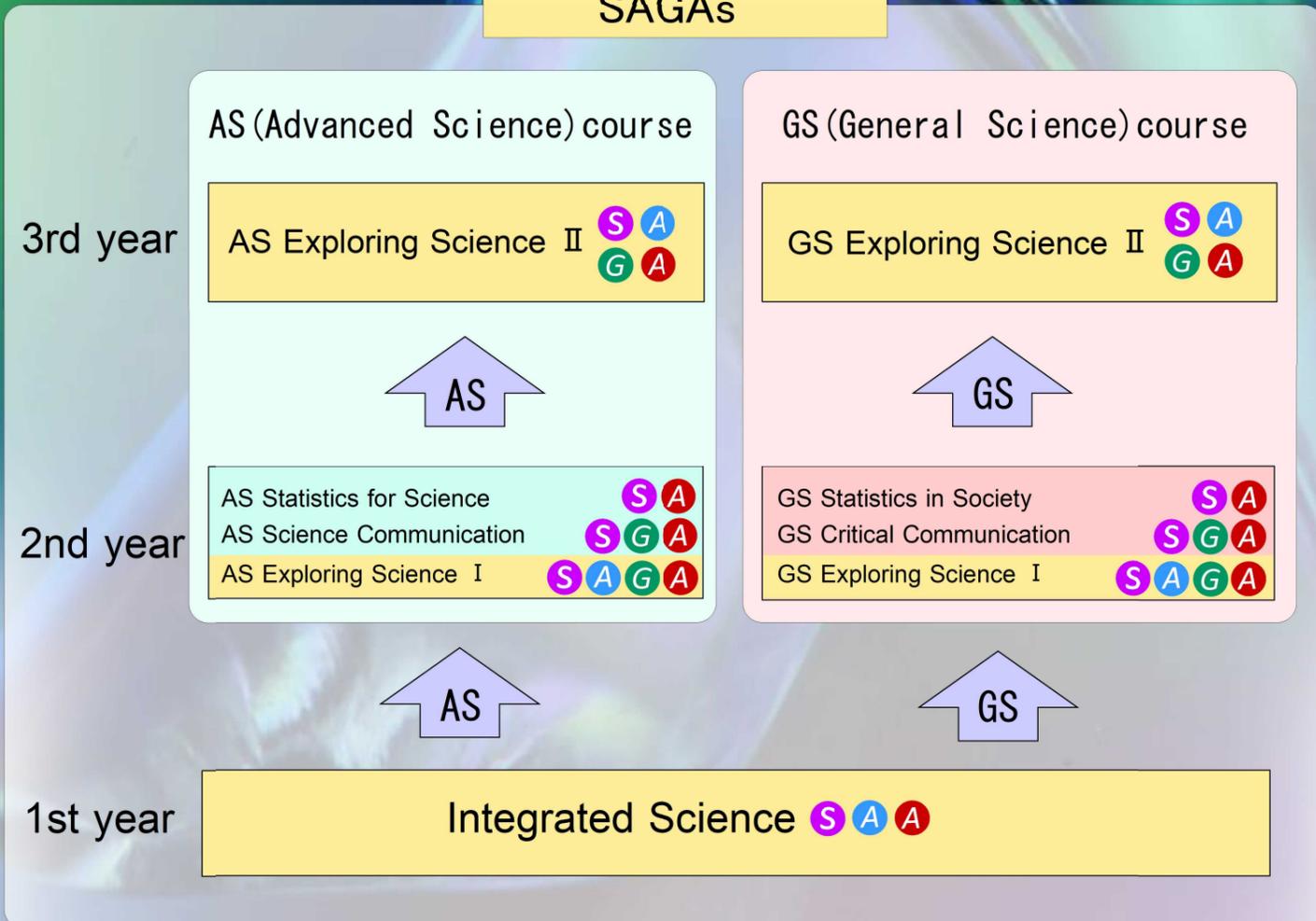


Research Project with the cooperation of Hiroshima University N-BIRD

## SAGAcity



### SAGAs



Science Communication



cooperative research program in Korea



Pioneer Studies in Science: Biology



Pioneer Studies in Science: Chemistry



cooperative research program in Thailand



Students in Korea visit Japan for cooperative research program



Pioneer Studies in Science: Nanodevices



Science competition

# Global

- Develop the “cooperative research program with students overseas” and promote the scheme to encourage the students to work on their “research project” in cooperation with high school students in Korea and Thailand.
- Develop a program to gain support from international students at Hiroshima University.

# Autonomous

Systematize teaching method and assessment of the “research project” and publish “Hiroshima University (HU) Method” with a view to advancing independent and autonomous “Research Project”.



Research Project Presentation