



香港資優教育學苑

The Hong Kong Academy for Gifted Education

香港特別行政區政府教育局資助
Subvented by the Education Bureau, the Government of the HKSAR

[**Gifted Programme**]

E2AST003C

(Token- required)

Astronomy Course (Level II): Mars – Our First Space Colony

Teachers of Galaxy Scientific Group



Application Deadline
11 Jun 2024 12:00 noon

Result Release
21 Jun 2024

Intended Learning Outcomes

Upon completion of the gifted programme, gifted students should be able to:

1. apply the three Kepler's laws of planetary motion;
2. design a trajectory for a manned mission to Mars using physics and mathematics;
3. explain the latest technological developments in manned mission to Mars;
4. set up a telescope and use a planisphere;
5. discuss ethical issues in space exploration.

◆ Gifted Programme Introduction

The rise of private space enterprise and new rocket development have made human mission to Mars closer to reality than ever. This course provides a guide to designing a manned mission to Mars using laws of physics and mathematics. Students can also experience space exploration through simulator and digital planetarium.

◆ Schedule

Session	Date	Time	Venue
1	17 Aug	2:00 p.m. – 5:00 p.m.	Room 105, HKAGE
2		6:00 p.m. – 9:30 p.m.	Tuen Mun (To be confirmed)
3	24 Aug	2:00 p.m. – 5:00 p.m.	Room 303, HKAGE
4		6:00 p.m. – 9:30 p.m.	Tuen Mun / Ma Wan (To be confirmed)

Remarks:

- There will be two evening classes where we will visit other outdoor sites for stargazing. The instructor has already arranged a chartered shuttle bus for pick-ups between the Academy and class venues. Evening classes will be dismissed at the Academy. Details will be explained during class.
- The evening stargazing activity classes maybe cancelled or postponed to a later date accordingly due to inclement weather, please watch out for the instructor's arrangements.

◆ Suitable for

- S1 to S3 HKAGE student members in 2023/24 school year
- Class size: 35

◆ Pre-requisite

No special prerequisites are needed

◆ Medium of Instruction

English with English Handouts

◆ Screening

Please answer the screening questions in the online application form.

*The screening questions are designed to help the applicant understands the course level and the course content. The questions must be answered by the student applicant and it can only be attempted once. The answers cannot be changed once the application is submitted. Selection is based on students' performance in answering the questions. Only students who can demonstrate motivation and knowledge of astronomy in the screening questions can be enrolled in the programme.

◆ Certificate

E-Certificate will be awarded to gifted students who have:

- attended at least 3 sessions; and
- completed all the assignments with satisfactory performance.