

GEMS UniConnect – Space School UK Competition

The Senior Space School UK, run by the University of Leicester during July and August 2020, is a 7-night residential course for 16-18 year olds. The programme includes:

- Talks and workshops on a wide-range of topics from astrobiology to X-ray astronomy, given by University lecturers and researchers, with challenges and group work
- Astronaut training through experience of neutral buoyancy scuba diving sessions, and experience of microgravity with indoor skydiving
- Rocketry building in small groups, with launches scheduled for the final day of the course
- Observation evening sessions with the University telescopes
- Visit to the National Space Centre, taking part in a simulated space masterclass

A total of 80 participants will be immersed in space science, astronomy, rocketry, physics and much more during the week, learning alongside like-minded people from many different countries. Participants work in small groups to overcome challenges, led by Group Mentors many of whom are previous attendees of the Space School and now work or study in space-related fields.

More information can be found at the website: <http://www.spaceschool.co.uk/>

The University of Leicester would like to run a competition in conjunction with GEMS UniConnect to offer one student from a GEMS school in the UAE a place on the Senior Summer School in August 2020. The prize will include a fully-funded place on the Space School, all accommodation and food costs for the week at the University Halls of Residence, and a £400 (AED 1900) contribution towards the cost of UAE-UK return flights and onward travel to the city of Leicester.

To enter the competition, students from GEMS schools located in the UAE should submit an essay of no more than 1000 words on the topic outlined below. One winner will be chosen by the University of Leicester from the submissions received from each school in the UAE GEMS network. The winner will be chosen on the basis of the quality of the essay and its approach to answering the question.

Once selected, the winner will be required to submit a full application form, including a medical questionnaire to assess fitness for the scuba diving activity. As the winner will be under 18, their parents will also be asked to sign a consent form.

The winner will be able to choose the dates most suitable for them depending on their circumstances. In 2020, the dates are either:

- 25th July 2020 – 1st August 2020
- 2nd August 2020 – 9th August 2020

The winner is responsible for booking their flights to the UK and arranging onward travel from the airport to the University of Leicester campus, though our administration team will be on hand to offer assistance.

During the week, we would like the winner to participate in publicity activities, which could include a post-event report, interview, photographs and social media/website publications.

Application Essay:

Sixty years ago, in 1960, Professor Ken Pounds founded the Space Research Group at the University of Leicester. The first Leicester-built instrument in space was launched aboard a Skylark rocket in 1961 and there has been at least one piece of Leicester-built equipment operating in space every year since 1967.

Those sixty years have seen some momentous events in space exploration:

- 12th April 1961 – Yuri Gagarin becomes the first man in space
- 16th June 1963 – Valentina Tereshkova becomes the first woman in space
- 20th July 1969 – Neil Armstrong becomes the first man on the moon
- 7th February 1964 – Bruce McCandless becomes the first person to do a spacewalk without being attached to the spacecraft
- 20th November 1998 – In-Space assembly of the International Space Station begins with the launch of its first module, Zarya.
- More than 200 people from 19 countries have visited the International Space Station since then, including Hazzaa Al Mansoori who became the first Emirati astronaut in September 2019.

In your essay your task is to present and predict what might happen in the next 60 years of space exploration. You might start with examples of space missions already planned, such as the Hope Mars Mission which is on track to launch in July 2020, and continue with a discussion of what major space agencies around the world have identified as priorities in the coming decades. By 2080, will we have established a colony on another planet or encountered alien life? What technological innovations might we see? How will political considerations shape our interaction with space? Do let your imagination take you to faraway places, but remember that you should be able to back up your arguments with evidence!

Your essay should be a maximum of 1000 words, and form a coherent discussion of the topic. Sources and references should be stated in a Bibliography which is not included in the word count, using the Harvard referencing system.

(Guidance available at <https://www2.le.ac.uk/library/help/referencing/author-date>)

Application deadline: Submit your essay to your school counsellor by **Wednesday 1st April 2020**.