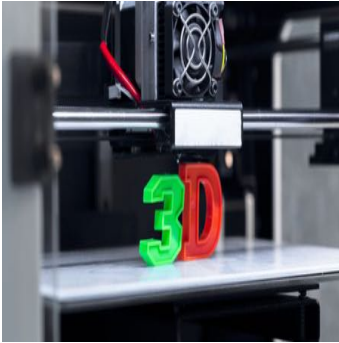
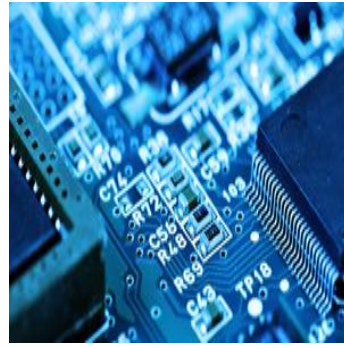
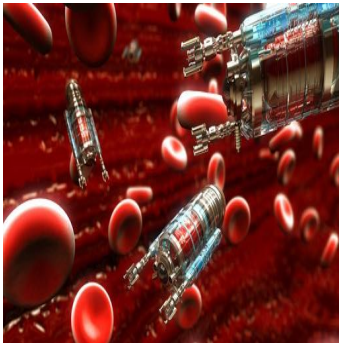


# Online Engineering Preparation Programme 2020



## Online Engineering Preparation Programme Imperial College London

Sunday July 12<sup>th</sup> – Thursday July 16<sup>th</sup> 2020



## What is Engineering all about?

How do scientists engineer the world?  
What affects will engineers have on the future?

Considering engineering opens up a diversity of career choices. Chemical, electrical and structural engineering are aspects of the industry that are logical to envisage, and Artificial Intelligence, space and exploration and automation are all hot topics we see in the news all the time. However, there are myriad niche areas: bio engineering, medical technology, nanorobotics, artificial intelligence, 3d printing, the future of Isaac Asminov's 'Positronic Man", and space habitats to name a few. We will explore some of these topics along with the less well-known

aspects of human and operations engineering. The future of societies will depend on scientists and engineers working together, and in this course, we will emphasize space settlement design to explore future engineering careers within the industry. Space settlement requires advanced engineering solutions for a future society to survive and prosper and allows those participating in this course to extend their scientific knowledge and see how relevant their current studies are to their future career trajectories.





# Engineering Preparation Programme

This course asks two basic questions of you...

First should you consider engineering and second what areas of engineering would most interest you.

You can answer all your engineering questions at one of the few top-rated large universities in the world that focuses on Technology, Science, Management and Medicine. Listen and talk to professionals from academia and industry from not only Imperial College London, but also other top UK Universities. Universities, which are always rated in the top ten in the world rankings.

Imperial College London is home to the Space Science Engineering Foundation, which runs space settlement design competitions sending students to NASA's Kennedy Space Center. The staff are experts in all area of space settlements, engineering and education. You will participate in a unique industry simulation, designing a space settlement on an asteroid.

Start Times					
	Sunday 12 <sup>th</sup> July	Monday 13 <sup>th</sup> July	Tuesday 14 <sup>th</sup> July	Wednesday 15 <sup>th</sup> July	Thursday 16 <sup>th</sup> July
08:00	Greetings and Welcome Jenny Lyons	Our Future in Space UK Space Agency	Energy Engineering Jian Heseri	Energy Engineering Jian Heseri	Applying to UK G5 and US Colleges
08:25					
08:30	Introduction Professor Marcus du Satoy	Search for Life Dr Randall Perry	Space and Planetary Bodies Professor Mark Sepfton	Medical Engineering Dr Aleksandra Gentry-Maharaj	PROJECT EVALUATIONS
08:55					
09:00	Philosophy of Engineers and Society Sophia Roberts	What Civil Engineers Do/ Dr Richard Ghail	Artificial Intelligence and Engineering Neelesh Ravichandran	Space and Planetary Bodies/Geophysics Dr Elizabeth Day	
09:55					
10:00	Rocket Engineering Shayne Beegadhur	Computer Design Workshop Dr Jun Lee	Systems and Security Engineering Evan Myrick	Skills and Teamwork workshop Brian Kong	
10:55			Project Assignment		
11:00					