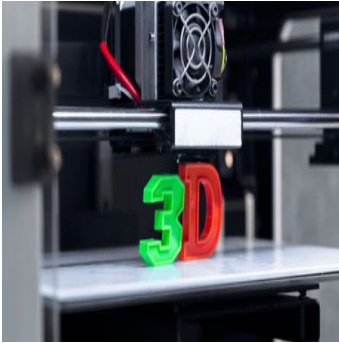
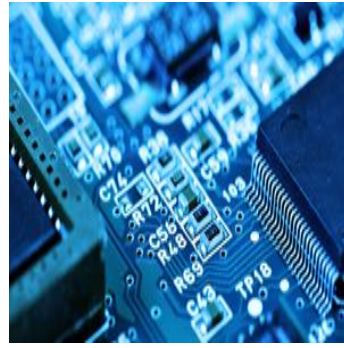
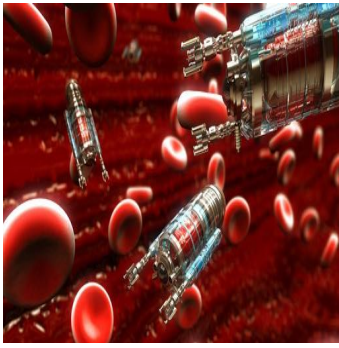


Online
Engineering
Preparation
Programme
2020



Online Engineering Preparation
Programme
Imperial College London

Sunday July 12th – Thursday July 16th 2020



What is Engineering all about?

How do scientists engineer the world?

What effects will engineers have on the future?

Considering engineering as a career opens up a diversity of future choices. Chemical, electrical, mechanical 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, mining space bodies, 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 emphasise 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 which are 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.

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Start Times	Sunday 12 th July	Monday 13 th July	Tuesday 14 th July	Wednesday 15 th July	Thursday 16 th July
07:00		Project Regroup Project Team	Mining in Space Dr Josh Rasera	Applying to University Yasmin Sarwar	Geophysics Dr Elizabeth Day
07:25					
07:30	Greetings and Welcome Jenny Lyons Aadil Kara	Space and Planetary Bodies/Geophysics Dr Elizabeth Day	Systems and Security Engineering Evan Myrick	Personal Statements Yasmin Sarwar	Philosophy of Engineering Sophia Lee Roberts
07:55					Importance of Math to Engineering and Space
08:00	Introduction to EPP	Our Future in Space UK Space Agency	Planets Professor Mark Sephton	Introduction to ML workshop Neelesh Ravichandran	Project 5
08:30	Engineering Process	What Civil Engineers Do Dr Richard Ghail			Project 5
08:55					
09:00	Skills and Teamwork Workshop Brian Kong	Energy Engineering Jian Heseri Medical Engineering Dr Aleksandra Gentry- Mahjaraj	Intro to Rocketry Shayne Beeghadur	UK University Experience Panel	Project 5 cont.
09:30			Intro to Rocketry cont.	UK University Experience	
9:55			CAD workshop Dr Jun Lee	Panel cont	
10:00	Intro to Projects Aadil Kara	AI in Engineering Neelesh Ravichandran	CAD workshop cont		Project 5 cont.

10:30

Project 1

Project 2

Project 3

Project 4

Project Feedback

1100 Finish