

# University of Oxford / University of Cambridge Engineering Summer Camp Daily Timetable 2019

## Introduction to Engineering

牛津大學 / 劍橋大學

工程師體驗夏令營時間表 2019

工程科入門課程

Sunday	WEEK 1	Monday	WEEK 1	Tuesday	WEEK 1	Wednesday	WEEK 1
12:00 - 4:30 PM Arrival at your college	▼	7:30 - 8:30 AM Breakfast	▼	7:30 - 8:30 AM Breakfast	▼	7:30 - 8:30 AM Breakfast	▼
5:00 - 6:00 PM Welcome reception	▼	8:30 - 9:00 AM Walk to lessons	▼	8:30 - 9:00 AM Walk to lessons	▼	8:30 - 9:00 AM Walk to lessons	▼
6:00 - 7:30 PM Dinner in College	▼	9:00 - 10:30 AM Morning lessons	▼	9:00 - 10:30 AM Morning lessons	▼	9:00 - 10:30 AM Morning lessons	▼
7:30 - 10:00 PM Induction talk & "Ice Breaker"	▼	10:30 - 11:00 AM Morning break	▼	10:30 - 11:00 AM Morning break	▼	10:30 - 11:00 AM Morning break	▼
10:00 - 10:30 PM Curfew	▼	11:00 AM - 12:30 PM Morning lessons	▼	-Time for students to have refreshments		11:00 AM - 12:30 PM Morning lessons	▼
		12:30 - 1:30 PM Lunch hour	▼	11:00 AM - 12:30 PM Morning lessons	▼	12:30 - 1:30 PM Lunch hour	▼
		1:30 - 3:30 PM Afternoon Lessons	▼	12:30 - 1:30 PM Lunch hour	▼	1:30 - 3:30 PM Afternoon Lessons	▼
		4:00 - 6:00 PM Tours of the City	▼	1:30 - 6:00 PM Afternoon Activities	▼	4:00 - 6:00 PM Afternoon Activities	▼
		6:00 - 7:30 PM Dinner in College	▼	6:00 - 7:30 PM Dinner in College	▼	6:00 - 7:30 PM Dinner in College	▼
		7:30 - 10:00 PM Evening activities	▼	7:30 - 10:00 PM Evening activities	▼	7:30 - 10:00 PM Evening activities	▼
		10:00 - 10:30 PM Curfew	▼	10:00 - 10:30 PM Curfew	▼	10:00 - 10:30 PM Curfew	▼

Thursday	WEEK 1
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 6:00 PM Cultural Excursions	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Evening activities	▼
10:00 - 10:30 PM Curfew	▼

Friday	WEEK 1
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 3:30 PM Afternoon Lessons	▼
4:00 - 6:00 PM Homework Club	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Party	▼
10:00 - 10:30 PM Curfew	▼

Saturday	WEEK 1
7:30 - 8:30 AM Breakfast	▼
9:00 AM - 6:00 PM Cultural Excursion	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Evening activities	▼
10:30 - 11:00 PM Curfew	▼

Sunday	WEEK 2
8:30 AM - 6:00 PM Free Time	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Evening activities	▼
10:00 - 10:30 PM Curfew	▼

Monday	WEEK 2
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 3:30 PM Afternoon Lessons	▼
4:00 - 6:00 PM Homework Club	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Evening activities	▼
10:00 - 10:30 PM Curfew	▼

Tuesday	WEEK 2
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 6:00 PM Cultural excursions	▼
6:00 - 7:30 PM Dinner in College	▼
10:00 - 10:30 PM Curfew	▼

Wednesday	WEEK 2
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 3:30 PM Afternoon Lessons	▼
4:00 - 6:00 PM Homework Club	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Evening activities	▼
10:00 - 10:30 PM Curfew	▼

Thursday	WEEK 2
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 6:00 PM Afternoon activities	▼
6:00 - 7:30 PM Dinner in College	▼
7:30 - 10:00 PM Evening Activities	▼
10:00 - 10:30 PM Curfew	▼

Friday	WEEK 2
7:30 - 8:30 AM Breakfast	▼
8:30 - 9:00 AM Walk to lessons	▼
9:00 - 10:30 AM Morning lessons	▼
10:30 - 11:00 AM Morning break	▼
11:00 AM - 12:30 PM Morning lessons	▼
12:30 - 1:30 PM Lunch hour	▼
1:30 - 3:30 PM Afternoon Lessons	▼
4:00 - 6:00 PM Graduation ceremony	
6:00 - 7:30 PM Graduation dinner	▼
7:30 - 10:00 PM Graduation party	▼
10:00 - 10:30 PM Curfew	▼

Saturday	WEEK 2
7:30 - 8:30 AM Breakfast	▼
9:00 AM - 5:00 PM Departures	▼

# Sample Activity Lists

## 活動列表



### Sports & Relaxation

#### 運動及娛樂

Badminton 羽毛球  
Basketball 籃球  
Football 足球  
Tennis 網球  
Swimming 游泳  
Cricket 板球  
Rounders 圓場棒球  
Volleyball 排球  
Ultimate frisbee 終極飛盤  
Olympics 奧運  
Jazz aerobics 爵士有氧舞  
Meditation 冥想  
Movie 電影  
Bingo 賓果  
Board games 桌上遊戲



### Cultural Activities

#### 文化活動

Friendship bracelet making 友誼手鐲製作  
Mask making 面具製作  
Postcard making 明信片製作  
Decoupage design 剪紙設計  
Felt puppet making 手指公仔製作  
Origami 摺紙



### Arts Activities

#### 藝術活動

Charcoal sketching 炭筆素描  
Clay modelling 粘土模型  
Cake decorating 蛋糕裝飾  
T-shirt design T恤設計  
Newspaper catwalk 報紙時裝表演  
Bag design 袋子設計  
Cookie decorating 曲奇餅裝飾

## 課題包括:

### *Lectures :*

1. Introduction & Knowledge refresher: elementary Physics, Scalars and Vectors
  2. Knowledge Refresher: elementary, Mathematics, probability, progression, series.
  3. Spaghetti tower
  4. Assessing mechanical motion in everyday life
  5. Concept of Stress, Strain, problem solving lesson
  6. Analysis of bridges, dams and buildings
  7. Analysis of beam deformation
  8. Design contest: proposals and feedback
  9. Design contest: construction
  10. Design contest: construction and testing
  11. Electrical Engineering, knowledge refresher: Ohm's law, circuit symbols
  12. Working of a potentiometer, chemical battery
  13. Construction of a solenoid
  14. Introduction to Bioengineering
  15. Introduction to Chemical Engineering
  16. Presentations
  17. Different forms of Sustainable Engineering
  18. Logical and mathematical puzzles: a systematic approach to solving puzzles
  19. Introduction to binary system
  20. Introduction to Engineering courses at University
  21. Group discussion of personal statements
  22. Mock interviews and final lesson
- 1.簡介和知識複習：基礎物理，標量和向量
  - 2.知識複習：初級，數學，概率，數列，級數
  - 3.意大利麵塔
  - 4.評估日常生活中的機械運動
  - 5.應力，應變，解決問題的概念
  - 6.分析橋樑，水壩和建築物
  - 7.分析梁的變形
  - 8.設計比賽：提案和反饋
  - 9.設計比賽：建設
  - 10.設計比賽：建設和測試
  - 11.電氣工程，知識複習：歐姆定律，電路符號
  - 12.電位計，化學電池的工作
  - 13.螺線管的構造
  - 14.生物工程概論
  - 15.化學工程概論
  - 16.演講
  - 17.不同形式的可持續工程
  - 18.邏輯和數學難題：解決難題的系統方法
  - 19.二進制系統簡介
  - 20.大學工程課程簡介
  - 21.對個人陳述進行小組討論
  - 22.模擬面試和最後一課

## Sample Excursions

### 短途旅程



**Warwick Castle**  
華威城堡

A visit one of the UK's most loved attractions. You can experience 1,000 years of history. There are attractions and activities within the castle grounds. You also get the opportunity to climb the battlements.

參觀英國最受歡迎的景點之一。您可以在這裡體驗1000年的歷史，城堡內的景點和活動，您甚至也有機會攀登城垛。



**Blenheim Palace**  
布倫海姆宮

Nestled in the heart of Oxfordshire, Sir Winston Churchill's family home is a captivating excursion for ORA students. Complete with the breathtaking Marlborough Tapestries, impressive sculpture and stunning gardens, the Palace gives students a thoroughly cultural experience.

溫斯頓丘吉爾爵士的家庭住宅位於牛津郡的中心地帶，是迷人的遊覽景點。皇宮擁有令人嘆為觀止的Marlborough Tapestries，令人印象深刻的雕塑和美麗的花園，為學生提供了徹底的文化體驗。



**Drayton Manor**  
Drayton Manor 樂園

Drayton Manor is home to over 100 rides and attractions, as well as a fifteen-acre zoo. Visit the many different types of birds, reptiles and mammals, before letting off some steam on the exhilarating rides. Students can round off the day by tackling the vertiginous aerial assault course or enjoying a round of crazy golf.

Drayton Manor 樂園擁有100多個遊樂設施和景點，以及佔地15英畝的動物園。學生可以參觀許多不同類型的鳥類，爬行動物和哺乳動物，然後在令人振奮的遊樂設施上放鬆一下。學生參與令人眩暈的空中突擊課程或享受一輪瘋狂的高爾夫來度過這一天。



### London Theatre 倫敦劇院

The chance to visit London's West End and see renowned shows is an exciting prospect for many students. With a variety of critically-acclaimed performances available, students could be lucky enough to watch *Wicked*, *Les Misérables*, *The Lion King*, *Phantom of the Opera*, *School of Rock* or many other possibilities.

對於許多學生來說，參觀倫敦西區和觀看知名節目的機會是令人興奮的經驗。通過各種廣受好評的表演，學生們可以幸運地觀看女巫前傳，孤星淚，獅子王，歌劇魅影，搖滾校園或許多其他有名的演出。



### Roman Baths 羅馬浴場

A trip to the world-famous Roman Baths presents students with the chance to explore Roman Britain. A series of baths and springs reveal past Roman beliefs, including remains of curse tablets thrown into the water to bring misfortune upon enemies.

參觀世界著名的羅馬浴場，讓學生有機會探索羅馬英國。一系列的浴室和泉水展示了過去的羅馬信仰，包括詛咒片的殘骸扔進水中給敵人帶來不幸。



### West Midland Safari Park West Midlands 野生動物園

The West Midlands Safari Park offers an immersive exploration of animal exhibits. A walkthrough trail is designed to educate young visitors about periods of zoological history and give them the chance to see incredible creatures. Students can explore the ice age and the land of the dinosaurs on their journey, even coming face to face with life-sized models as they go.

**West Midlands 野生動物園**給學生一個透過動物展覽探索動物的經驗。當中的漫步路徑旨在教育學生關於動物歷史的時期，並讓他們有機會看到令人難以置信的生物。學生們可以在旅途中探索冰河時代和恐龍之地，甚至可以在他們去的時候面對面見識與真寔大小一樣的動物模型。