



WELCOME

The Open Day programme lists the TALKS and ACTIVITIES on offer for this year's Open Days.

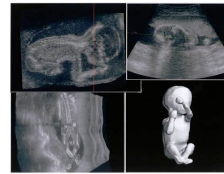
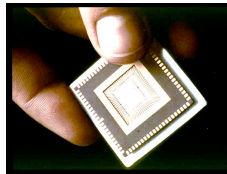
The first page tells you 'How to Get the Most out of YOUR Open Day'.
The second page is a 'Tours Summary', telling you what's happening on which tour.
The back page provides a summary of 'What's On When'.

Engineering: Past, Present and Future

In addition to the tours, there are a number of exhibitions, available all afternoon (see back page).

PLEASE DO NOT ENTER AREAS OTHER THAN THOSE LISTED IN THIS GUIDE

Please see notes below for information on Safety, First Aid and Facilities.



➤ Safety Warning ◀

PLEASE NOTE: THE DEPARTMENT IS CURRENTLY UNDERGOING EXTENSIVE BUILDING WORK AND VISITORS ARE REQUESTED TO OBSERVE ALL SAFETY NOTICES AND KEEP OUT OF RESTRICTED AREAS. THANK YOU.

SOME MACHINERY AND EQUIPMENT IN THE DEPARTMENT CAN BE HIGHLY DANGEROUS, OR EVEN LETHAL, IF HANDLED WITHOUT SUPERVISION. PLEASE DO NOT TOUCH AND HANDLE ANY MACHINERY OR EQUIPMENT UNLESS ALLOWED TO DO SO UNDER SUPERVISION OF THE OPERATOR OR DEMONSTRATOR RESPONSIBLE.

+ FIRST AID +

In the event of injury, first aid is available. Ask any Engineering Department student or member of staff to call a First Aider or contact Reception.

◀ FACILITIES ➤

- Toilets**
- Baker Building**
 - Basement: Ladies', Men's and Disabled (North Wing)
 - 1st floor: Men's (South Wing)
 - Inglis Building**
 - Main ground floor corridor: Ladies' and Men's
 - Mezzanine floor: Men's
- Refreshments** Hot & cold drinks, sandwiches & snack dispensing machines are situated in the corridor of the Inglis Building. Ice creams will be on sale in the Courtyard (weather permitting!).
- Parents...** teachers and other accompanying adults are welcome to use the Staff Common Room (situated on the second floor of the Baker Building) to wait for their charges; free tea and coffee and a chance to sit down!



How to get the most out of YOUR Engineering Department Open Day!

THE LAYOUT...

There are 2 buildings here at the main site of the Engineering Department: the **BAKER BUILDING** (with the main Foyer that you came in through) and the **INGLIS BUILDING** (across the courtyard). Although there are Open Day activities happening in both buildings, **ALL TOURS commence from the main Baker Building Foyer**. If you get lost or need to leave a tour for any reason, please make your way back to the Foyer.

WHERE DO I START?

1. Identify any **TALKS** that you'd like to go to and plan your afternoon around them.
2. Decide which **TOUR** you'd like to go on first
A list of what you can see on each tour is given at the back of your Programme.
(The 2.15 tours are always the busiest, especially the Aerodynamics Tour.
To avoid the crush, why not go on one of the 30 minute tours first?)
3. Go to the relevant 'TOUR DEPARTURE POINT'
These are indicated by wall signs and coloured balloons.
4. When your first TOUR is over, you will be brought back to the Foyer
5. Pick your next TOUR, or go to a TALK!

"I'VE ONLY GOT A FEW MINUTES - WHAT CAN I SEE?"

There's a range of **Exhibitions and Displays** for you to look at whenever you want for as long as you want. These are situated in the Design and Project Office, the Staff Common Room or Lecture Room 4. Take a quick look at the '**AVAILABLE ALL AFTERNOON**' section on the back page of your Programme and see what appeals to you. (They're also great to fill in any gaps you may have between tours or talks.)

HELP IS AT HAND...

If you need to know where something is, or have a general question...

Just ask anyone in a blue sash or with a name tag on!

If you have an Admissions-related question...

Answers to Frequently Asked Questions are posted in Lecture Room 4. Any other queries can be addressed to the Directors of Studies Desk in Lecture Room 4 (open from 1.45 to 5.15).

If you have a Gap Year question...

There will be a talk by a representative from the Year in Industry scheme in Lecture Theatre 0 at 2.15 (repeated at 3.15). The same representative will be available in LR4 for you to speak to throughout the rest of the afternoon, as will our very own Industrial Experience Coordinator, Mr Igor Wowk!

SUMMARY OF TOURS

Please Note: Each tour lasts 30 or 60 minutes (as shown) but, if necessary, you can leave any tour at any time

Tour	Discipline	Topics and Demonstrations	Locations
(1 hour) ROUTE 1	MECHANICAL ENGINEERING	Measuring vibration of musical instruments using a laser How does a gyroscope work? Vibrations of buildings How do tyres generate cornering forces?	Mechanics Lab BAKER BUILDING, (Ground floor, South Wing)
	MATERIALS ENGINEERING	Breaking steel at -196°C Superconductivity Why do fridges fall apart? Bouncing bikes - measuring strains and stresses	Materials Lab INGLIS BUILDING (Ground floor)
(1 hour) ROUTE 2	CIVIL, STRUCTURAL & ENVIRONMENTAL ENGINEERING	The Soils Show: demonstration of soil behaviour Wobbly bridge simulator Wave power machine demonstration Flood modelling Avalanche prediction	Mezzanine Floor INGLIS BUILDING
		Earthquake damage assessment Transformer structures Novel roof designs by students Student constructions	Structures Lab INGLIS BUILDING (Ground floor)
(1 hour) ROUTE 3	AERODYNAMICS	Wind tunnel demonstrations Lift on wings Supersonic space shuttle	Aerodynamics Labs BAKER BUILDING (2nd & 3rd floors, South Wing)
	ACOUSTICS	Reducing tyre noise Modelling unsteady combustion Control of unsteady combustion	Acoustics Lab BAKER BUILDING (1st floor, South Wing)
(1 hour) ROUTE 4	ELECTRICAL ENGINEERING	<u>Photonics & Sensors:</u> Computer generated holography; Window pane TV; Liquid crystal display technology	Electrical & Information Engineering Teaching Lab INGLIS BUILDING, (1st floor)
		<u>Electrical Power:</u> Motor magic; Jumping ring; Magnetic levitation	
	<u>Electronic Engineering:</u> How a CD player works; 3 rd year project work		
	INFORMATION ENGINEERING	<u>Electronic Materials:</u> The nano world, MEMs micro gripper	
		Second-year undergraduate Integrated Design Project involving Mechanical/Electrical and Information Engineering - Build a Robot	
		<u>Signal Processing:</u> Interest point matching with complex wavelets Signal processing for audio and music	
		<u>Machine Intelligence:</u> Augmented reality Dialogue system for a tourist information system	
		<u>Control:</u> Atomic force microscope	
		<u>Computational & Biological Learning:</u> Robotic unicycle	
(30 mins) ROUTE A	ENGINEERING for LIFE SCIENCES	<i>Get your hands on the latest technology!</i> Skill learning in a robotic environment Measuring lung function using structured light Bread making: an old example of biotechnology	Lecture Theatre 2 INGLIS BUILDING, (Ground floor)
(30 mins) ROUTE B	TEACHING FACILITIES	Take a look at our Language Unit , then walk through our extensive Library , move on to the 'DPO' (location of drawing and computing sessions) then see the Hydraulics Lab	BAKER BUILDING & INGLIS BUILDING
(30 mins) ROUTE C	WORKSHOPS	Let our Workshops' Chief Technician show you round the Engineering Workshops and Machine Labs - as used by all our undergraduates!	INGLIS BUILDING (1st and Ground floors)

Cambridge University Engineering Department OPEN DAYS 2011

WHAT'S ON WHEN?

	1.15-2.10	2.15 - 2.45	2.45 - 3.15	3.15 - 3.45	3.45 - 4.15	4.15 - 5.00
TALKS All on Ground Floor Baker Building, Lecture Theatre 0, just off main Foyer	Undergraduate Engineering at Cambridge & A Brief Guide to the Admissions System	The 'Year in Industry' Gap Year Scheme	Undergraduate Engineering at Cambridge (NB repeat of 1.15 lecture)	The 'Year in Industry' Gap Year Scheme (NB repeat of 2.15 lecture)	(There is no talk at this time)	(There is no talk at this time)
		2.15 - 3.15	2.45 - 3.45	3.15 - 4.15	3.45 - 4.45	4.15 - 5.15
1 HOUR TOURS (see 'Summary of Tours' on previous page for details)	ROUTE 1:	Mechanics & Materials		Mechanics & Materials	Mechanics & Materials	Mechanics & Materials
	ROUTE 2:	Civil, Structural & Environmental		Civil, Structural & Environmental	Civil, Structural & Environmental	Civil, Structural & Environmental
	ROUTE 3:	Aerodynamics & Acoustics	Aerodynamics & Acoustics	Aerodynamics & Acoustics	Aerodynamics & Acoustics	Aerodynamics & Acoustics
	ROUTE 4:	Electrical & Information	Electrical & Information	Electrical & Information	Electrical & Information	Electrical & Information
30 MINUTE TOURS	2.00	2.30	3.00	3.30	4.00	4.30
	A) Engineering for the Life Sciences B) Teaching Facilities	A) Engineering for the Life Sciences B) Teaching Facilities C) Workshops	A) Engineering for the Life Sciences B) Teaching Facilities	A) Engineering for the Life Sciences B) Teaching Facilities C) Workshops	A) Engineering for the Life Sciences B) Teaching Facilities	A) Engineering for the Life Sciences B) Teaching Facilities C) Workshops
AND the following are AVAILABLE ALL AFTERNOON to look at WHENEVER you want FOR AS LONG as you want!						
DISPLAYS & ADVICE	> Engineering Today - a collection of news stories and press releases of some of our more recent achievements!					
	> Manufacturing Engineering - see designs for innovative products by manufacturing engineering students from the 2011 MET Design Show. Students complete a major design project to develop a new product with real business potential.					
> Industrial Experience - talk to the CUED Industrial Liaison Officer and staff from the Year in Industry Scheme						
> Admissions and Study Advice - current Engineering Directors of Studies to talk to (from 1.45 onwards)						
> Building the Bouncing Bomb - a display about the recent Channel 4 documentary featuring CUED's Dr Hugh Hunt						
1 st FLOOR, BAKER BUILDING Design & Project Office GROUND FLOOR, BAKER BUILDING Lecture Room 4						