

University of Cambridge
Goldsmiths' Science for Society

**Collegiate Cambridge:
how it works for students
... and staff!**

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HISTORY

2009 year celebrations!

From 1209 - only a University

- "Sound and Useful Learning"
- Training for managers of "real estate", law, civil servants, accountants for Church and State

From 1284 - University + Colleges

- Individual teaching in colleges - teach all subjects
- University builds up reputation of manuscripts

From 1500 - Renaissance + printing => major studies

- Renaissance + printing => major studies (electronic era now?)
- New curriculum and books
- University and colleges develop laboratories

From 1850 - post industrial revolution

- Post-reform - post industrial revolution
- New written examination system
- Experimental science begins and University develops laboratories
- Women undergraduates admitted to "men-only" Colleges
- Growth of post-graduate degrees and post-doctoral researchers

STUDENT NUMBERS 2007 - 2008

Undergraduates			
Home/EU	10,509	90%	
Overseas	1182	10%	
Total	11,691		67%
Post-Graduates			
Home/EU	3,557	61%	
Overseas	2,275	39%	
Total	5,835*		33%
			* ~80% PhD students
TOTAL	17,526		100%

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STAFF NUMBERS 2007 - 2008

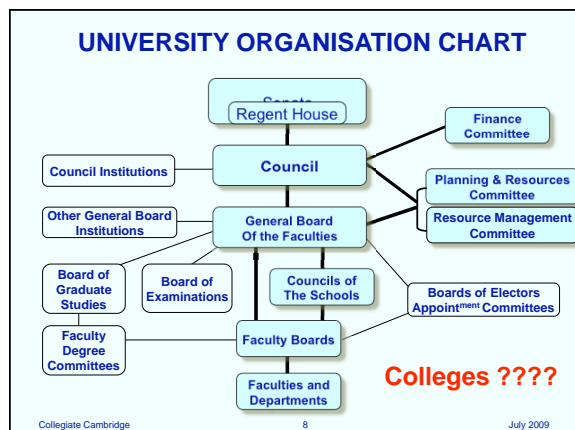
(a) Academic posts		
Academic [Professors, lecturers, etc]	1,599	
Academic-related [Admin./computing/curators]	1,184	
(b) Research staff	2,574	
(c) Support Staff	2,761	
TOTAL	8,118	

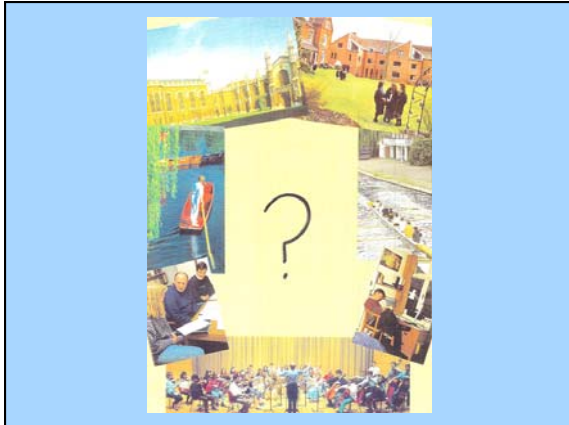
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UNIVERSITY HIERARCHY

- Central administration: Old Schools
- Facilities:
 - Libraries
 - Careers Service
 - Language Centre
 - Board of Graduate Studies
 - Audio-Visual Aids
 - Computer Services
 - University Centre
- Schools
 - Physical Sciences
 - Biological Sciences
 - Clinical
 - Technology
- Faculties
 - Humanities & Social Sciences
 - Arts & Humanities
- Departments

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COLLEGES

- 31 colleges
- Independent of University - legally!
- Status: autonomous institutions
financially self-sufficient
- Diversity: old & new [1264 to 1996]
small & large [180 to 1000 students]
men & women [3 women only]
undergraduate & graduate [3 graduate]
architecture

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COLLEGES - what do they do?

- Admission of undergraduates (& graduates):
DoS Tutors College lecturers
- Welfare & non-academic activities:
Tutors Catering Accommodation
Social Music Sportetc
- Education & learning:
Directors of Studies College lecturers
- Research:
Libraries Fellowships Office space

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COLLEGES - how do things happen?

- Head of house
- Governing Body and / or College Council
- Committees
Porterhouse Blue
Tom Sharpe
- Senior Tutor, Tutors, College Lecturers
- Bursars, maintenance & domestic staff, porters
- Librarians, computer officers, fund raisers, secretarial & support staff
- **Students**

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COLLEGES - categories of membership

Master/Mistress/President	Vice-Master	
Senior Tutor	Bursar	Dean
Tutors	Domus Bursar	Chaplain
Directors of Studies	Domestic staff	
College Lecturers	Administrative staff	
<i>Senior Combination Room [SCR]</i>		
Teaching Fellows - UTOs	University Teaching Officers	
	NUTOs Non-University Teaching Officers	
Research Fellows	Professorial Fellows	Bye-Fellows
	Senior members (dining rights)	

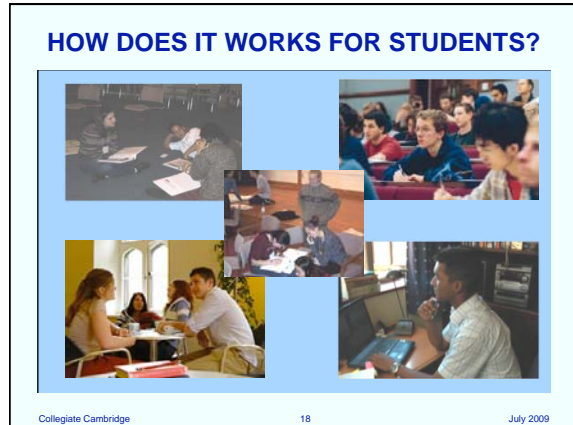
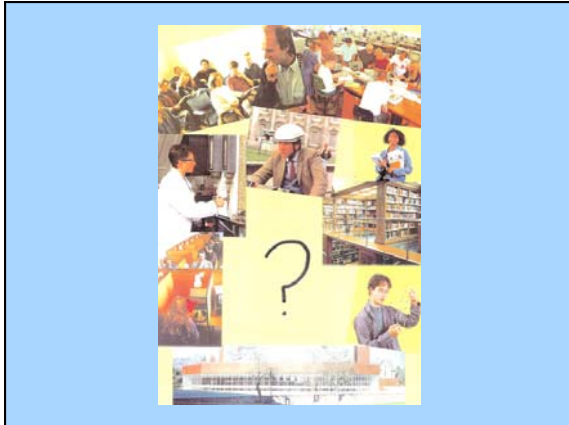
↑ Can walk on the grass! ↑

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COLLEGES - working together

- Senior Tutors, Bursars & Colleges' Committees
- Senior Tutors Committee (*as an example*)
various Standing Committees
 - education
 - welfare and finance
 - undergraduate admissions (with University)
 - graduate
- University committee participation - **extensive**

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UNDERGRADUATES: THE TRIPOS SYSTEM

- Many topics in first year or two which allows:
 - broad coverage of subjects;
 - introduction to non-school subjects;
 - more specialisation in final year/s.
- Assessment includes:
 - formal examinations
 - projects
 - practicals
 - dissertations.
- Must pass Tripos exams at end of each year
- BA Honours degree in all subjects
- Four year courses can lead to M.Eng. or M.Sci.

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NATURAL SCIENCES PART IA (year 1)

- Three subjects from 7 choices:
 - Biology of cells
 - Evolution and behaviour
 - Physiology of organisms
 - Chemistry
 - Geology
 - Materials & mineral sciences
 - Physics
- plus one of
 - mathematics
 - quantitative biology
 - elementary maths for biologists

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NATURAL SCIENCES PART IB (year 2)

- Three subjects from 20 choices:

Animal biology	Biochemistry & molecular biology
Ecology	Cell & developmental biology
Pathology	Pharmacology
Physiology	Plant & microbial sciences
Neurobiology	Experimental psychology
Chemistry A	Chemistry B
Minerals sciences	Materials science & metallurgy
Physics (single subject)	Advanced physics (double subject)
Geological sciences A	Geological sciences B
Mathematics	History & philosophy of science

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NATURAL SCIENCES PARTS II and III * [years 3 and 4 *]

- One subject from 18 choices:

Anatomy	Biochemistry*
Ecology	Genetics
Pathology	Pharmacology
Neuroscience	Physiology
Plant sciences	Psychology, development, neuro
Zoology	
Astrophysics*	Physics: experimental & theoretical*
Chemistry*	Materials science & metallurgy*
Geological sciences*	
History & philosophy of science	
Part II General	

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[* four year course]

APPLYING TO CAMBRIDGE



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ENTRY REQUIREMENTS

- Three or four A-levels (or equivalent)
 - minimum of 2 science subjects - generally three
 - minimum offer generally is AAA*
 - A-level subjects depend on degree course e.g.
 - engineering requires physics and mathematics
 - medicine requires chemistry or biology
- Practical experience & gap year?

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APPLICATION PROCESS

Now: decide course, university, college
Open Days?

15 October 2009: UCAS and SAQ submission

Early December: interview
subject moderation

Early January: decision

Mid-January: pool?

Mid- August: A-level results

5 October 2010: start university

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HOW DO WE DECIDE?

Application form: including personal statement
Head's or referee's statement

Interviews (2 generally)

Tests: national [medicine, Thinking Skills?,]
critical thinking skills
college [subject and college dependent]

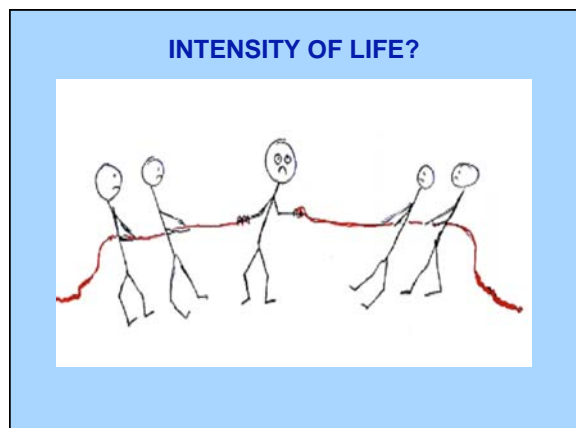
Discussions: other interviewers, Admissions tutors
Intercollegiate discussions - moderation

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NUMBERS: applicants & acceptances 2008

	<i>Applications</i>	<i>Acceptances</i>	%
Computer Science	266	68	26
Engineering	1226	288	24
Mathematics	1042	243	23
Medical Sciences	1553	300	19
Natural Sciences	1974	609	31
Veterinary Medicine	379	70	19
Totals: sciences	6640	1578	24
All subjects	14343	3378	24

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DIRECTOR OF STUDIES

Tasks, generally within Colleges, include:

- interview prospective students & advise selection
- involvement with College teaching strategy
- greet first-years to discuss academic aims
- provide perspectives on possible courses
- find supervisors (or agree strategy with student)
- meet start and end of term to review progress
- give feed-back on supervisions (via reports)
- available as needed (if or when problems arise)
- become mentor/friend?

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TUTOR

Tasks, generally within Colleges, include:

- interview prospective students & advise selection
- involvement with College welfare support
- greet first-years to discuss life in Cambridge
- provide perspectives on overall development
- promote non-academic interests
- meet start and end of term to review life
- provision of job references
- available as needed (if or when problems arise)
- become mentor/friend?

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UNDERGRADUATE TEACHING

- Lectures:
 - often 3 per topic each week
 - typical undergraduate: up to 12 to 15 hours per week
 - question sheets (and answers!).
- Practicals:
 - range from 2 hours to 8 hours
 - continuous assessment
 - use of demonstrators (post-graduates often).
- Projects.
- Dissertations.
- Examples classes and seminars.
- Supervisions.

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WHAT ARE SUPERVISIONS?



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SUPERVISIONS

- 1 hour sessions
- Weekly usually but may vary
- Participants number from 2 to 5
- Facilitated by graduate, post-doc, lecturer, professor
- Different according to individuals, subject, year
- Arranged by Colleges (or, for them, by departments)
- Aims: subject knowledge, approaches, support development of individuals - **independence**
- **NOT part of University's formal assessment**

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WHAT ARE SUPERVISIONS FOR?

- learn discipline of **subject**
- facilitate learning
- problem solving
- **development of individuals**
- aid understanding and independence
- monitor welfare
- **assessment** of progress
- preparation for examinations
- supervisor's benefit

...are fun!

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OUTREACH & COMMUNITY ACTIVITIES

Community Activities survey five years ago:

- nearly 8,000 staff & students involved;
- over 200,000 hours of paid & voluntary time;
- worth almost £3,000,000 to the community;
- 500,000 individuals & 4,000 organisations directly benefit from the wide range of activities;

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WIDENING PARTICIPATION

Widening participation / Access / Schools liaison initiatives include:

- Group to Encourage Ethnic Minority Applications (GEEMA)
- The Target Campaign (encouraging applicants from state schools)
- Cambridge Special Access Scheme (CSAS)
- Students with disabilities
- Mature students and students from FE Colleges
- **University Summer Schools!**

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CAMBRIDGE – THE FUTURE!



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CHALLENGES

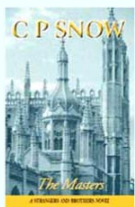


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BOOKS TO READ



- **Chronicles of Matthew Bartholomew**
Susanna Gregory
- **Porterhouse Blue**
Tom Sharpe
- **The Masters**
C P Snow
- **Period Piece**
Gwen Raverat



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COLLEGE ARCHITECTURE & GARDENS



Clare College
Fellows Garden



Trinity Hall
Jerwood Library [1999]



Parkers Piece
[1613 & 1848]



www.stridedesign.net/shapewalks

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