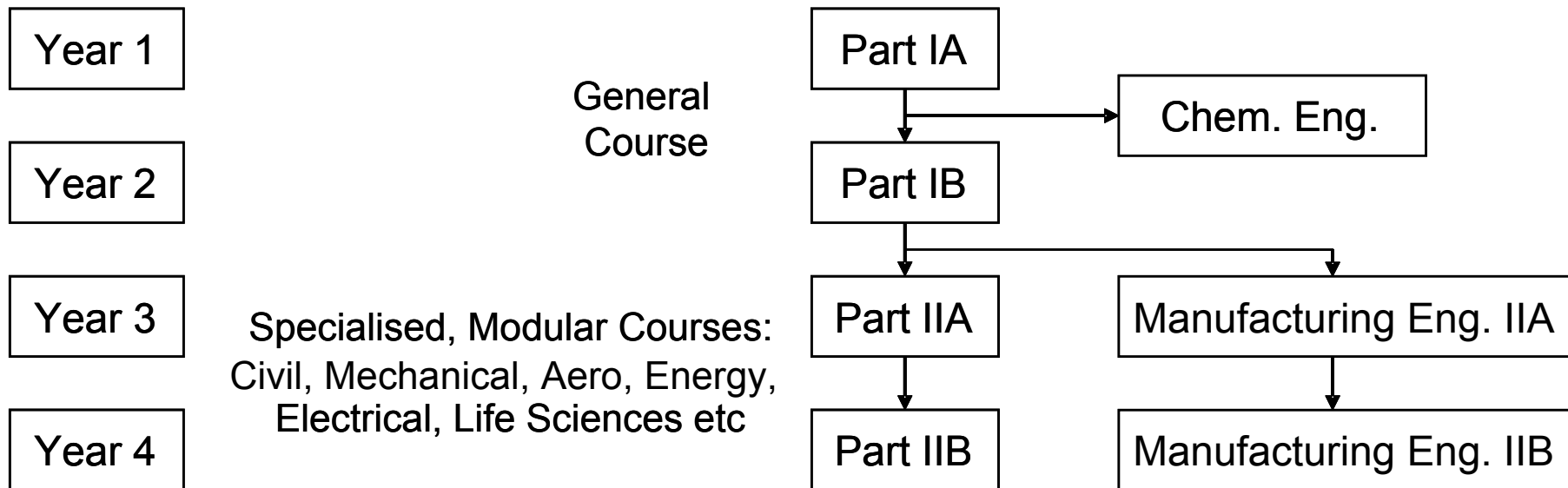


Opportunities for Undergraduate Teaching in Engineering

Course structure:



LABORATORY DEMONSTRATING

Parts IA and IB: mainly 2 hour labs in different subject areas, some projects (Integrated Electrical Project, Integrated Design Project), plus Drawing, Computing.

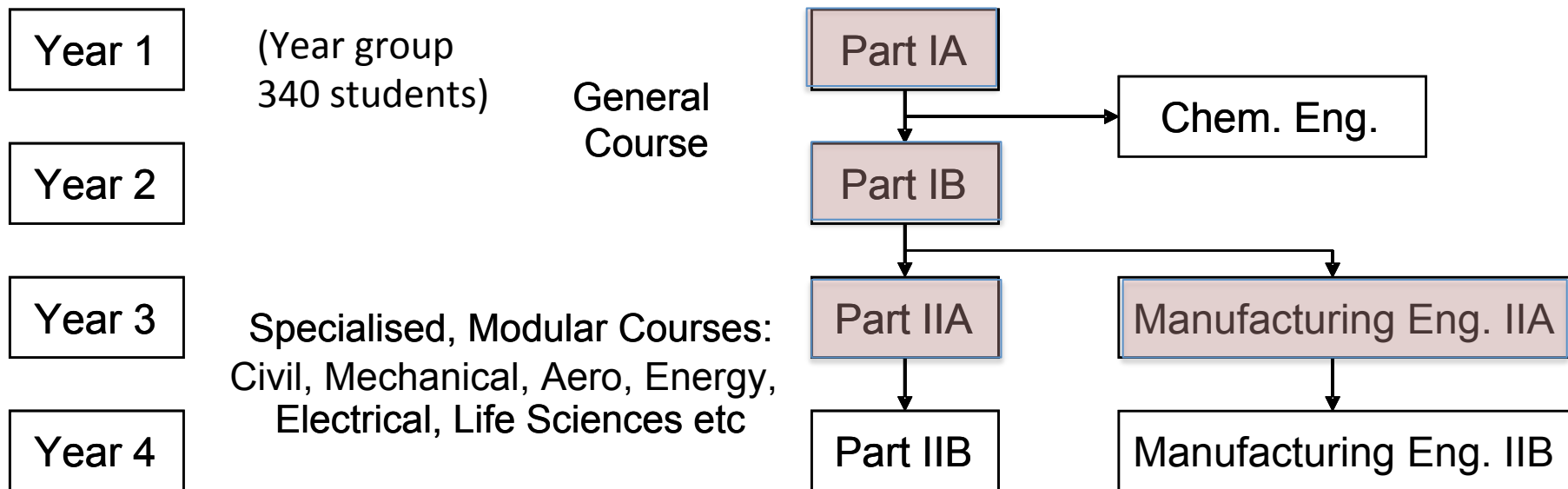
Part IIA: 2-3 hour laboratories, "Engineering Area Activities", projects.

Part IIB: Coursework for some modules

SUPERVISING (Tutorials)

Parts 1A and 1B: 1 hour per fortnight per course (students in groups of 2-3)

Part IIA and Manufacturing Part IIA: 4 hours per module



How do you get yourself onto peoples' radar?

LABORATORY DEMONSTRATING Organised and paid by Engineering Department

Parts IA and IB: mainly 2 hour labs in different subject areas, some projects (Integrated Electrical Project, Integrated Design Project), plus Drawing, Computing.

Part IIA: 2-3 hour laboratories, "Engineering Area Activities", projects.

Part IIB: Coursework for some modules

Contact leader of activity (lab leader, module leader)

How do you find out who they are?

Read

<http://teaching.eng.cam.ac.uk/content/teaching-opportunities>

Contact details of IA and IB lab leaders and technicians are available online: [IA](#), [IB](#).

Module leaders for IIA and IIB modules:

Undergraduate Teaching Webpages: teaching.eng.cam.ac.uk

What is demonstrating?

- Wide range of lab activities, including experiments, computing
- Generally repeated many times
- Can involve mini-lectures
- Detailed interaction with students to explain theory, working of equipment, interpretation of results

How do you get yourself onto peoples' radar?

SUPERVISING (Tutorials) Paid by Colleges

Parts 1A and 1B: 1 hour per fortnight per course (students in groups of 2-3)

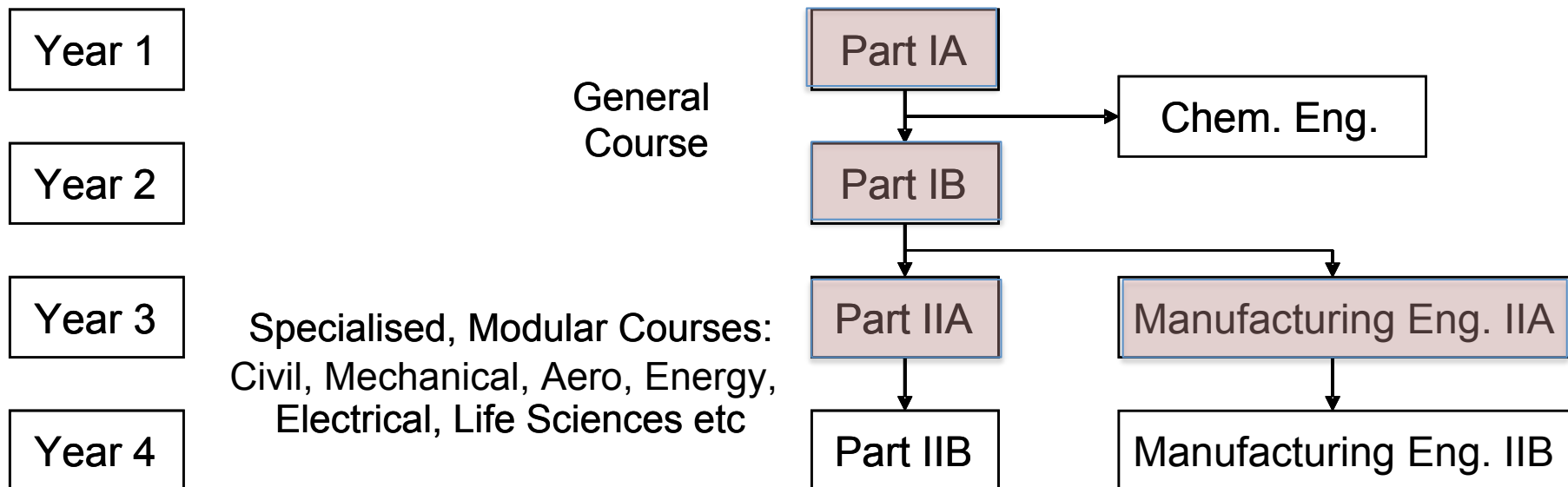
Organised by Colleges: **Directors of Studies**

Mostly undertaken by staff and experienced supervisors

Part IIA and Manufacturing Part IIA: 4 hours per module

Organised by **Module Leaders**

Mostly undertaken by graduate students



What are supervisions?

Supervisions are the core of the educational provision of Cambridge a medium through which students learn to work autonomously.... to present arguments, question their own assumptions, meet deadlines.

Guidance for supervisors, Senior Tutors' website

What are supervisions?

- General aspects

Typically:

Supervisor with groups of two or three students

One hour long

Students may have two or three supervisions per week

Highly interactive, not 'lessons'

Supervisions are for:

What are supervisions?

Supervisions are for:

- Sorting out problems from lectures, working through examples
- Helping students to link concepts and see the 'big picture'
- Developing appropriate study skills in students
- Helping students to schedule their work: an impending supervision concentrates the mind!
- Providing feedback on progress
 - To students
 - Marking written work
 - Feedback during supervisions
 - CamCORS reports
 - To DoSs
 - CamCORS reports
 - Emergency 'red button' alert when students aren't coping
- Providing guidance on exam preparation

What are supervisions?

Variations: year groups

- **Part I:** Managing the transition from school to university
 - e.g. at school, a new maths topic is ‘hammered home’ with lots of worked examples; here there may be just one example
 - e.g. how can students monitor their own progress? There’s often not much feedback from any part of the course
- **Part II:** Developing independent learning skills
 - e.g. Living with uncertainty: ‘There’s no single right answer’

Expectations

- **Guidelines for supervisors**

Supervisors are expected to be aware of the content of the course and provide teaching relevant to it, including setting and marking work, providing constructive feedback, responding promptly to supervisee queries.

- **Guidelines for students**

Students are expected to complete work set (and hand in when required), attend and engage pro-actively with supervisions, respond promptly to correspondence from supervisor.

- **Supervisor and students should both**

Show consideration and respect for each others' opinions

See Guidance for Supervisors on the University webpages:

<http://www.admin.cam.ac.uk/committee/seniortutors/guidance/supervisors.pdf>

SUPERVISING

Everyone must attend a training course before supervising

Register for Engineering courses with Mary Wilby (Teaching Office) melw2@eng.cam.ac.uk
(University also runs generic courses)

Further information about supervising, including some resources and more advanced courses:

<https://www.cctl.cam.ac.uk/workshops/supervising-undergraduates>

HOW MANY HOURS TEACHING CAN YOU DO?

Recommended limit (supervising plus demonstrating): **6 hours per week**

SUPERVISING

FINDING ENGINEERING COURSE INFORMATION

Syllabuses, contact details for module and lab leaders etc:

Undergraduate Teaching Webpages: teaching.eng.cam.ac.uk

There's some useful and detailed information about teaching opportunities in Engineering, including quite a lot of guidance

<http://teaching.eng.cam.ac.uk/content/teaching-opportunities>

Finding teaching opportunities: use the on-line Supervisor and Demonstrator marketplaces

<http://www.eng.cam.ac.uk/teaching/apps/supervisormarket/>

<http://to.eng.cam.ac.uk/teaching/apps/demonstratormarket/>

Sell yourself by showing you understand our courses and know what you're offering. Say **exactly** which courses you could teach (e.g. 'Structural Mechanics Part 1A'), and say what teaching experience you have.

You can use your personal connections to bring yourself to the attention of people who can offer teaching.

For Part IA and IB supervisions: Organised by College Directors of Studies (DoS) for their own students. If you have a College connection, ask the relevant DoS.

For Part IIA supervisions: contact the module leader (see teaching webpages)

Any general queries to the main Engineering Department Teaching Office:

Mary Wilby (melw2@eng.cam.ac.uk)

Dr Claire Barlow (cyb@eng.cam.ac.uk) Deputy Head of Department