

# **Pete Nellist – Practical Class Organiser (PCO)**

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**M Eng Materials Science  
Practical Class Briefing**

**I hope you read the brief guide to practicals**

**Also see Course Handbook**

# Most importantly

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- practicals are **COMPULSORY**
  - they again constitute “**examinable coursework**”
  - **satisfactory performance in Practical**s is required in order to pass Prelims and proceed to Part I
    - *normally need to achieve at least 40% (check Handbook when it is available) in practicals and have submitted your **practical book and a report for marking on each of the practicals listed in the Handbook***
- ...of course, mitigating circumstances will be taken into account. See Course Handbook.**

# Missing a practical / failing to submit a report

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- you must inform the Education Manager (EM) if you miss a practical
- you must provide appropriate written evidence of a valid reason for missing a practical or failing to submit a report
  - *or if submitting late*  
in order to prevent penalties
- appropriate evidence includes
  - *a medical certificate to cover illness*
    - *details need not be specified by the doctor*
  - *a signed letter from your College Tutor to cover other matters*
- normally no later than one week later
- one copy to the EM and a second to the PCT
- assume your College will also require a copy to submit to the Proctors

# Safety in the Teaching Labs

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- everyone's safety is our highest priority
- every effort has been made to make the labs safe
- however, there is also an obligation on YOU to help
- some **DOs** and **DON'Ts** follow, taken from the Handbook

# Safety and procedures

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- DOs

- DO pay attention to the PCT and demonstrators
- DO read and follow safety instructions
- DO concentrate on what you are doing to avoid mistakes
- DO familiarise yourself with fire escape routes
- DO keep fire doors closed and escape routes clear
- DO wear appropriate eye and hand protection
- DO wash hands after working with chemicals
- DO work in a fume cupboard with etchants and solvents
- DO use minimum quantities of flammable liquids
- DO keep the labs clean
- DO speak in English at all times in the labs
- DO keep long hair tied back at all times

# Safety and procedures

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## • DON'Ts

- DON'T eat, drink or put on make-up in the labs
- DON'T use your mobile phone
- DON'T mouth-pipette or lick things
  - - this includes sucking your pen!
- and a couple of “obvious” ones:
- DON'T mess around
  - - if you do, you'll be required to leave
- DON'T wear inappropriate clothing and shoes
  - - e.g. sandals, short skirts, long scarves
  - - you'll be asked to modify your dress or leave
- Note: it is important that the only language spoken in the Teaching Labs is English - whether that be student-to-student or demonstrator-to-student - such that if incorrect (and potentially unsafe) instructions are given, there is a better chance someone overhearing them will realise and be able to act.

# When and where

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- **Thursday and Friday afternoons 2-5pm**  
**Excepts weeks 1 and 2**
- **undergraduate Teaching Labs (Holder Building)**
- **expect one practical every other week**
  - *half of you in odd weeks*
  - *half of you in even weeks*
  - *practicals in Trinity term arranged differently again*
- **you'll mainly be working in groups of three**
  - **each group will have its own set of equipment in MT and HT**

# Assistance while in the lab

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- **SD will usually be present at the beginning of the first afternoon and at times during the practical.**

**They will inspect your lab notebook and provide advice (varies somewhat depending on the requirements of the practical)**

- **Teaching Assistant (TA) and Practical Class Technician (PCT) present throughout**



# Term timetable

MT Wk	YEAR 1 (Thur, Fri) [except Week1, when it is Tues-Fri]
1	1P1a, Intro to Computing (Paul Warren, Tauseef Ansari)
2	1P1b, Intro to Optical Microscopy (Keyna O'Reilly, SLP)
3	1P2, Intro to LabView (Andrew Watt, Sebastian Bonilla)
4	
5	1P3, Young's Modulus & Stress Analysis (James Marrow, AJW)
6	
7	1P4, Metallography (Angus Wilkson, DEJA)
8	

1P1 and 1P2 do not have laboratory notebooks assessed

1P3 is a formative assessment practical which requires a long journal paper report

# Week 1 – 1P1a

	Tues Week 1	Wed Week 1	Thu Week 1	Fri Week 1
1	Dow, Cameron CCC	Karpe, Amogh CCC	Zhou, Weiqian STA	Chow, Maria STA
2	Li, Yanzhe (Jerry) CCC	Hunt, Edward CCC	Wang, Hening STA	Ahmed, Riyadh STA
3	Peng, Zhihan (Victoria) CCC	Sun, Jingjie (Jason) CCC	Gupta, Aiyush STA	Zhou, Jingyun (Leo) TRI
4	Lee, Yik (Alex) CCC	Williams, Tycho SEH	Jopling, Ben STA	Weill, Xavier TRI
5	Ziglio, Giulio (Alvise) QNS	Egan, Ptolemy SEH	Huang, Huiyan TRI	Jackson, Nelly TRI
6	Gudin, Arsene QNS	Spencer-McDaniel Isabella SEH	Sutherland, Max TRI	Wiland, Weonika TRI
7	Yang, Chenyu (Jack) QNS	Helsby, Kayla SEH	Knight, James STC	Song, Yutong STC
8	Yang, Lily Shun Hua QNS	Kim, Tae Hwan SEH	He, Weijia (Hudson) STC	Ayittah, Gerald STC
9	Qi, Ziyang (Colin) QNS	Chen, Tianyu (Charlie) SEH	You, Like (Unique) STC	Chhowalla, Emile MAN
10	Bolla, Amelia QNS	Lee, Katherine SEH	Russell, Alexandra MAN	Fu, Yufei (Amy) MAN
11	Flanagan, Rowan QNS		Heydon, Matthew MAN	Yusuf, Mohad MAN
12			Lim, Issac MAN	Huang, Hongije (Rex) MAN

# Timetables – Michaelmas Term

Thursday Week 2 Thurs & Fri Weeks 3, 5, and 7			
A1	Chow, Maria STA	Knight, James STC	Lee, Katherine SEH
A2	Gupta, Aiyush STA	Song, Yutong STC	Williams, Tycho SEH
A3	Jopling, Ben STA	You, Like (Unique) STC	Huang, Huiyan TRI
A4	Wang, Hening STA	Chen, Tianyu (Charlie) SEH	Jackson, Nelly TRI
A5	Zhou, Weiqian STA	Egan, Ptolemy SEH	Sutherland, Max TRI
A6	Ahmed, Riyadh STA	Helsby, Kayla SEH	Weill, Xavier TRI
A7	Ayittah, Gerald STC	Kim, Tae Hwan SEH	Wiland, Weonika TRI
A8	He, Weijia (Hudson) STC	Spencer-McDaniel Isabella SEH	Zhou, Jingyun (Leo) TRI

**Odd weeks**

# Timetables – Michaelmas Term

Friday Week 2 Thurs & Fri Weeks 4, 6, and 8			
B1	Dow, Cameron CCC	Fu, Yufei (Amy) MAN	Gudin, Arsene QNS
B2	Hunt, Edward CCC	Heydon, Matthew MAN	Qi, Ziyang (Colin) QNS
B3	Karpe, Amogh CCC	Huang, Hongije (Rex) MAN	Yang, Chenyu (Jack) QNS
B4	Lee, Yik (Alex) CCC	Lim, Issac MAN	Yang, Lily Shun Hua QNS
B5	Li, Yanzhe (Jerry) CCC	Russell, Alexandra MAN	Ziglio, Giulio (Alvise) QNS
B6	Peng, Zhihan (Victoria) CCC	Yusuf, Mohad MAN	
B7	Sun, Jingjie (Jason) CCC	Bolla, Amelia QNS	
B8	Chhowalla, Emile MAN	Flanagan, Rowan QNS	

**Even weeks**

# How your practicals will be assessed

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- All practicals except 1P1a, 1P1b and 1P2 will have the lab notebooks assessed.
- In addition, selected practicals (1P3, 1P6 and 1P8) will require writing a report, which will be assessed (counting towards prelims). The report will be prepared as if it was a manuscript submitted to Acta Materialia. You will have 3 weeks to write a report.
- The first assessed practical will be formative, in order to provide feedback (1P3 Young's Modulus) on the lab notebook and the report

# Contribution of marks to Prelims

- 8 practicals will have the lab books assessed, contributing with 3 marks each (Total of 24 marks)
- 2 practicals will have their reports assessed, contributing with 13 marks each (Total of 26 marks)
- Total contribution to Finals: 50 marks, out of a total for Part I of 500.
- DMAC has decided that no unmoderated numerical marks will be released, but formative feedback will be released.
- Tutors will be made aware of there is any concern about your marks.

# **Your practical notebook**

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- **Lab notebooks cannot leave the Teaching Labs**
- **Lab notebooks are the property of the Department**
- **Lab notebooks are made available to Examiners**

# Lab book feedback

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	Comments and feedback
<b>Completeness and conciseness of method description</b>	
<b>Data analysis and any preliminary error analysis</b>	
<b>Brief interpretation or comment on results</b>	
<b>Presentation and clarity</b>	



# Full write-up assessment

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- **Title, abstract and Introduction – 2 marks**
- **Description of methods used including methods of data processing and analysis – 3 marks**
- **Presentation of results including the appropriateness of figures and data presented, and the use of errors where appropriate – 4 marks**
- **Discussion and interpretation of results – 3 marks**
- **Conclusions – 1 mark**
  
- **Formative feedback electronically via Canvas**
  
- **Make sure you are aware how to submit (Course Handbook)**

**...and on a positive note**

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- **Armourers and Brasiers' Company / TATA Steel Prize for best overall performance in Prelims practicals**

**and finally...**

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- **if in doubt about anything**
  - **just ASK**

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