



UNIVERSITY OF OXFORD

# DEPARTMENT OF MATERIALS

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**To:** All Candidates for Part II Examinations in Materials Science 2021  
**From:** Professor Keyna O'Reilly, Chair of Examiners 2021  
**Subject:** Part II Examinations Trinity 2021  
**Date:** Tuesday, 09 March 2021  
**CC:** Director of Undergraduate Studies; Tutorial Fellows

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## Information on the Part II Examinations 2021

I am writing with information about the arrangements for your forthcoming examination and to provide you with a copy of the Examination Conventions for 2021.

The Examiners for the Trinity 2021 exams are: Prof. Hazel Assender, Prof. Nicole Grobert, Prof. Pete Nellist, Prof. Keyna O'Reilly (Chair), Prof. Jason Smith and Prof. Richard Todd. The external examiners are Prof. Peter Haynes, Imperial College London, and Prof. Geraint Williams, Swansea University.

Candidates are reminded that in order to preserve the independence of the examiners, **you are not allowed** to contact them directly about matters relating to the content of the exams or the marking of papers. Any communication must be via your college, who will, if the matter is deemed of importance, contact the Proctors. The Proctors in turn communicate with the Chair of Examiners. If you have any queries about the Examinations or anything related to the Examinations, for example illness or personal issues, please don't hesitate to seek further advice from your College tutor, or one of the Department's academic support staff as listed in your course handbook.

## Examination Conventions

The appropriate Examination Conventions for your degree course are enclosed. Please ensure you read the Conventions thoroughly. Please note that any communication to the Proctors about such matters should be via **your College**.

## Deadline for the Submission of Part II Theses

Part II theses should be submitted by **4 pm on Monday, week 7, Trinity Term**. You are required to upload your thesis to the [FHS Assignments](#) section of the Department of Materials Undergraduate WebLearn site.

**NB: PLEASE READ CAREFULLY SECTION 3.6 IN THE ATTACHED EXAMINATION CONVENTIONS, RELATING TO LATE SUBMISSION OF COURSEWORK. This sets out the action which must be taken in the event that submission is affected by illness or other urgent cause, and the circumstances in which academic penalties may be applied, leading to a reduction of the mark and even failure of Part II of the examination.**

If you have a Specific Learning Difficulty (SpLD), for example, dyslexia, you should include the coversheet available on WebLearn at the front of your work.

## **Regulations on Format of Report**

For further details on print format see Examination Regulations 2020; however the Regulations are summarised below:

**Word limit:** 12,000 words for the main body of the report, plus 3,000 words for the mandatory final chapter containing reflective accounts of the project management aspects of your investigation (max 1,500 words), Ethical and Sustainability considerations (max 1,000 words), and Health, Safety & Risk assessment references (max 500 words). Word counts exclude references, title page, acknowledgements, table of contents and the four Project Management Forms. All other text is included in the word count, including the abstract, tables and the figure captions.

**Page limit:** 100 pages. This page limit excludes references, title page, acknowledgements, table of contents and appendices. Every other part of the report is included in the page limit. **All** pages of the report should be numbered sequentially.

If you feel that you have an exceptional case for exceeding the word and/or page limit, and you wish to seek permission to do so, both you and your supervisor should contact the Part II Project Organiser who will put your case to the Chair of Examiners. Such a case should be made at the earliest possible stage. The Examiners will enforce the word limit strongly, and any report submitted over the word limit may be subject to penalties as detailed in the Conventions.

**Appendices:** the purpose of the above word and page limits is to prevent the excessive inclusion of material that is unnecessary for development of the key argument(s) of the report. Material which is additional to the main body of the report, e.g. further detailed data, may be included in appendices. However, whilst appendices are not included within the limits of the word or page counts of the report, whether examiners read appendices is entirely at their discretion.

In addition, all copies of your report must include the following:

- a literature survey;
- a description of the engineering context of the investigation;
- a signed declaration that your thesis abides by the word limit regulation, including a word count;
- a signed declaration that it is all your own work, unless where referenced.

## **Project Assessment**

The Part II project is allocated 400 marks, 33.3% of the total marks for Parts I and II. Two examiners (or one examiner and one assessor) read each thesis, and each of them independently gives a provisional mark based on the assessment guidelines enclosed with this memorandum (see page 4). In addition, normally an external examiner will see each Part II thesis. The purpose of the viva is to clarify any points the readers believe should be explored, and to ascertain the extent to which the work reported is the candidate's. A discussion is held after the viva involving all Part II examiners/assessors who were present and at which time Part B of the supervisor's report is taken into account. The outcome of the discussion is an agreed mark for the project.

In arriving at the agreed mark the Examiners will take into account all of the following:

- i) the comments and provisional marks of the original markers,
- ii) the candidate's understanding of their work as demonstrated during the viva, and
- iii) the opinion of the external examiner who has seen the thesis.

It is stressed that it is the scientific content of the project and the candidate's understanding of their work that is being considered in the viva.

If the two provisional marks allocated in advance of the viva differ significantly (that is, normally by more than 10% of the maximum available for a Part II project) this will be addressed explicitly during the discussion after the viva. In the majority of other cases the viva has only a small influence on the agreed mark awarded to a Part II thesis.

If you believe there to be mitigating circumstances, such as illness or the impact of the Covid-19 pandemic, which may have affected your progress with the project you can submit a mitigating circumstances notice to your examiners (MCE) via your college. For further details on how to submit a notice, see the [Problems completing your assessment](#) page.

### **Timetable of the viva voce examination.**

The Part II vivas will be held over two days this year on Tuesday, 29<sup>th</sup> June, and Wednesday 30<sup>th</sup> June. Each viva lasts approximately 30 minutes. Vivas will be held using videoconferencing technology. The effectiveness of the video-conference provision will be tested in advance with each candidate and where this is judged to be inadequate the viva will be conducted by telephone conference call instead. In all cases provision will be in place to switch to a telephone conference call if on the day the video-conference technology/connectivity causes problems. Candidates should ensure that they are available throughout this period. A timetable will be circulated in Trinity term. Please note that allocated viva times will only be changed under exceptional circumstances, subject to availability, and all vivas, even those rearranged, will be held during the scheduled times on 29<sup>th</sup> and 30<sup>th</sup> June. In no circumstances should candidates contact the examiners directly.

## Allocation of Marks for Part II Candidates 2020

		MS
<b>PART I</b>	General Paper 1 Structure and Transformation of Materials	100
	General Paper 2 Electronic Properties of Materials	100
	General Paper 3: Mechanical Properties	100
	General Paper 4 Engineering Applications of Materials	100
	Options Paper 1	100
	Options Paper 2	100
	Laboratory Practicals and Industrial Visits	80
	Engineering and Society Portfolio: Business Plan	20
	Team Design Project	50
	Characterisation or Modelling options module	50
	<b>PART I TOTAL</b>	<b>800</b>
<b>PART II</b>	Part II Project thesis	400
	<b>PART II TOTAL</b>	<b>400</b>
<b>FINAL</b>	<b>GRAND TOTAL</b>	<b>1200</b>

## Materials Science Part II Thesis Assessment.

Examiners should write a report of not more than two pages giving their assessment of the thesis under the following headings:

<b>Name of Candidate:</b>
<b>1. Aims &amp; Objectives</b> What were the aims and objectives of the project? Are these clearly identified in the thesis?
<b>2a Project Management</b> Is the account of project management clear? Does it show that the project was well managed? Were the original objectives kept to, and if they were changed, is it shown why?
<b>2b. Health, Safety &amp; Risk Assessment</b> Does the reflective account of H&S and risk assessment demonstrate an appropriate understanding of these topics for the particular project?
<b>2c. 2c. Ethics &amp; Sustainability</b> Does the reflective account of ethics and sustainability demonstrate an appropriate understanding of these topics for the particular project?
<b>3. Engineering Context</b> Has the candidate identified the engineering (or equivalent) context of the work? Did the candidate reflect on the engineering implications of the <b>project findings</b> or cover engineering context only in a generic manner for the project topic?
<b>4. Literature Review</b> Is the background literature to project reviewed adequately? (comprehensively, focused on the project's area and <i>critically</i> .)
<b>5. Methods</b> (including data analysis methods) Are the methods and analysis of data used in the project clearly described? Did the student develop any new methods?
<b>6. Results</b> Are the "raw" results attained clearly described? Are the results analysed adequately and appropriately? If appropriate, are errors handled adequately?
<b>7. Discussion</b> Are the results properly discussed: in themselves? in relation to previous work in the area? in relation to the aims and objectives of the project?
<b>8. Main Achievements</b> What do you consider to be the main achievements of the project? Are these clearly identified in the thesis?
<b>9. Weaknesses</b> Indicate any weaknesses which you may have found. Does the thesis show awareness of these?
<b>10. Originality</b> Does the thesis show original thinking on the part of the student?
<b>11. Quality of Report</b> Comment on the quality of the report. (use of English, clarity of structure, extent to which structure & style follows that normally expected of a research thesis in the field of the research topic, coherent story, overall style, quality of diagrams and figures, use of references to previous work, etc.)
<b>12. Summary and Additional Comments</b> To include identification of the key strengths of the thesis and any areas of minor, significant or serious weakness.
<b>Overall Mark</b> Give short justification for mark

The following anticipated marking scheme for borderlines should be borne in mind.

70 – 100	First Class
60 – 69	Upper Second
50 – 59	Lower Second
40 – 49	Third
30 – 39	Pass
0 – 29	Fail

### **MS Part II Marking Guidelines**

- 90-100% Thesis rated very highly in all categories of the assessment guidelines. Typically this would be an extremely high quality thesis showing extensive evidence of original thought, results very well analysed and put in context, very well presented, and with no important deficiencies.
- 80-89% Thesis demonstrating very strong performance across most categories, with some minor weaknesses in one or two areas. Typically this would be a very high quality thesis showing evidence of original thought, results very well analysed and put in context, very well presented, but with some minor deficiencies.
- 70-79% Very strong overall performance, but with significant weakness in one or two categories or minor weaknesses in several. Typically this would be a high quality thesis showing some evidence of original thought, results well analysed and put in context, well presented. May be deficient in one or two areas accounting for a minority of the whole.
- 60-69% Strong overall performance, but with some weaknesses in several categories. Typically the work would have been competently carried out and reasonably well presented and analysed. This mark range should be achievable by an average student with reasonable effort.
- 50-59% Satisfactory overall performance, but with serious weaknesses in several categories. Typically the work would have been carried out mostly with competence, but with some flaws (e.g. errors, misinterpretations). Little evidence of original thought.
- 40-49% Poor overall performance with serious weaknesses in several categories. No evidence of original thought.
- 30-39% Poor overall performance with serious weaknesses in the majority of categories. The thesis of a candidate who has done little work and has presented this work poorly.
- <30% Very poor performance with little or no meaningful content.