Supervision of projects in taught courses – MPLS divisional guidance

Context and purpose

The following policy guidance was approved by MPLS Academic Committee in Trinity term 2010. The guidance was prepared after external examiners raised concerns in 2009 at the potential for significant inequalities within subjects in the level of support that students might receive from one supervisor to the next. As project practices vary considerable between departments due to their differing nature and purpose, this guidance does not seek to suggest a common approach to projects. The guidance focuses on ensuring that practices surrounding the execution of projects are transparent, equitable and fair across the department / programme.

The guidance was prepared following a survey of procedures for the supervision of projects across MPLS departments in Hilary term 2009. It was clear from the survey that there is some variation in supervisory practice within the same courses. Although perhaps inevitable, some such variation might pose the risk of inequitable treatment between students. Some of the following policies address this by requiring the provision of advice and guidance to supervisors about their roles. This includes managing student expectations of the role their supervisor will play. The use of a standard form explaining detail about the level of supervision is also recommended.

The guidance has been slightly updated below to take into account changes in web addresses and practices in individual departments since 2010. The guidance covers both undergraduate and post graduate taught courses.

Advice given to students on project selection

Advice on project selection is available in all departments and is generally well thought out. There are notes of guidance for almost all projects, but these vary in substance. Many departments offer talks / presentations / open days to contextualize the process and allow students the opportunity to discuss potential projects. This is essential to ensure students are clear about the purpose of their projects and the wider learning objectives. For PGT programmes project choice is often driven by the students' interests / access to their own data sources and therefore practices are, in some senses, less formally organised than would be expected from undergraduate programmes.

Policy 1: Departments/programmes have a face to face mechanism with students to introduce substantial projects to undergraduate students. Both undergraduate and postgraduate taught projects should be supported by detailed written guidance of project selection mechanisms.

Departments have a wealth of resources to aid students with the selection of projects and mechanisms are in place to manage allocations and popular projects. The majority of departments / programmes allow students to suggest projects and publish guidance (of varying detail) on how to go about this. Whilst this information is undoubtedly discussed with students, the method used to allocate projects is not often explicitly written down for reference.

Policy 2: Departments / programmes should ensure that there is clear and succinct summary information about how students should select projects, the resources available to assist in decision making, the allocation process and the requisite timeline for decision making.

Carrying out projects

There is a considerable variation in the type and quality of material available to students advising on how to carry out their projects. Some projects, especially those that make up all, or a substantial part of, a year.s work, are extremely well documented and supported by a wealth of resources2; others may be less so. It is important that all students are afforded clear advice on the framework and scope for the type of project.

Departments wishing to develop more resources to support the progress of students projects would be well advised to look at the Materials resources; the course handbook is also an exemplar of good practice:

http://www.materials.ox.ac.uk/uploads/file/handbooks/2009PART2HBK.pdf

The section on 'What makes a good project' is especially useful.

The Biological Sciences 'Final Honour School Projects & Major Subject Course Assignments' guidance (http://weblearn.ox.ac.uk/site/mathsphys/biology/ugradbiol/studhbks/) is also a comprehensive resource on how students should undertake and write up their projects.

Policy 3: Departments / programmes ensure clear, written, guidance is available on framework and scope for the type of project, including help on such things as: lab, field, computational or experimental constraints and obligations, expected content of report/thesis, formatting, referencing and plagiarism. The document should reference all available supporting materials.

Any handbooks developed should be sent to examiners as part of their standard materials.

Marking schemes

Several of the 2009 external examiners expressed surprise at the level of disagreement between markers and asked that standard marking schemes for projects were either implemented, improved, or more specific guidelines provided. It was thought that disagreements in marking were due to the different expectations of markers, which this guidance is intended to address:

Policy 4: Departments implement a clear and comprehensive marking schema that is accessible to students, supervisors and examiners. Where there is a wide variation in the type of projects that are available, these differences need to be accommodated.

Student / Supervisor Contact hours and feedback

Practices on project supervision clearly vary widely across departments. What is not transparent, however, from much of the information available to students, is what they should expect their relationship with their supervisor to be, how much help is it reasonable to expect, how often should they see their supervisor, will meetings be formal/informal etc. Whilst these things are hard to define and much of this may be discussed with the student and supervisor informally, it is helpful to manage the expectations at a broad level. In some departments 2009 external examiners commented on the varying nature of help and assistance given to students and asked that guidance be issued to ensure parity between students.

Whilst it is not for the Division to recommend a minimum /maximum level of supervision based on the length of the project, it is important that expected levels of supervision, and the role of the supervisor, are clearly explained in project guidance. This not only manages the students' expectations, but also allows the department to guide the supervisors more clearly what is expected of them.

A statement of teaching and supervision norms (an example from Materials and other links to examples are appended at C) should be available.

Policy 5: Expected levels of supervision (supervision norms) and the role of the supervisor should be clearly detailed and explained in written project guidance. Guidance should be made available to students, supervisors and the examination board.

Provision of feedback on draft dissertations / reports to students

Feedback levels on drafts of dissertations vary significantly. Except for a couple of courses which clearly identify specific patterns of feedback as part of managing projects, for the most part individual supervisors seem to determine the extent of the feedback provided. To ensure students are treated equitably, and examiners are aware of the amount and nature of feedback, supervisors need clear guidance on what levels of feedback should be given and when the programme considers it appropriate for this feedback to be given. Individual student needs will necessitate that this guidance is not over prescriptive or rigid, but there should be an expectation of parity of experience.

Policy 6: Expectations for the provision of feedback on draft written project work (dissertations/reports), along with a suggested timescale, should be clearly detailed and explained in written project guidance to allow the student to manage the progress of their project and their expectations of what assistance they will receive.

Supervisor involvement in project assessment

If a project supervisor is also an assessor of an undergraduate or postgraduate taught student's project, the following procedures should be followed:

i. The supervisor should always be appointed as an assessor if not already an examiner.
ii. The second marker should either be an examiner on the Board of Examiners or an assessor with the closest specialist knowledge to the project topic.
iii. The final year project is assessed by the supervisor and an examiner/assessor. The two mark the student's written submission independently of each other i.e. double blind marking.
iv. The supervisor and the second marker submit their assessments to the Board of Examiners using a standard form.
v. The supervisor is asked to comment on the performance of the candidate throughout the project and on how much assistance was given. The second marker should see this *before* submitting his/her marks.
vi. As for all types of assessment, the Examination Conventions should explicitly state how marks are reconciled when there is a significant difference (typically 10%) between the mark of the supervisor and examiner/assessor. In such cases the Chair of Examiners may request an additional assessor or examiner.
vii. The project marks for each candidate must be moderated by the examiners responsible for projects. The process of moderation shall include oversight of the moderation by at least one external examiner, and may involve one or more external examiners in the actual moderation process.
viii. Departments may wish to explicitly state in the special regulations for their course that they reserve the right to interview students regarding their project through a viva.

Policy 7: Departments should follow the procedures above when a project supervisor is also an assessor of an undergraduate or postgraduate taught student's project.

Reports from supervisors

Some departments have practices involving supervisors writing a report on the project. Materials has the following procedure in place (report form is annexed at D):

"The Supervisor's report is divided into Parts A & B: Part A provides simple factual information that is of significance to the examiners, such as availability of equipment, and is seen by the two markers before they read and assess the thesis. Part A does not include personal mitigating circumstances which, subject to guidance from the Proctors, normally are considered only in discussion with all Part II examiners thus ensuring equitable treatment of all candidates with mitigating circumstances. Part B of the supervisor's report provides her/his opinion of the candidate's engagement with the project and covers matters such as initiative and independence; it is not seen by the examiners until the discussion held after the viva."

Policy 8: It is suggested that all departments and programmes use a template report form for their projects. The form could be split in two, to allow for the provision of simple factual information (enabling the parity of student experience to be judged) separately from the supervisor's opinion of the project (the latter part would be optional). Departments can decide the level of information they think appropriate to seen by the examiners. It would be useful in the factual information for the

supervisors to include an indication of the level of support given during the project.

The Biology report form with its five point scale is annexed at D as a simple example of a useful mechanism.

A blank pro-forma report form should be available to students as part of the materials supporting the project; this might allow them to understand more their relationship with the supervisor and their own responsibilities in executing the project. Where supervisors are asked to note a student's contributions, it should be clear what was the level of contribution a student had made, the originality of the contribution and, if statements are made about the level of quality, reasons should be given for this.

Where supervisors' comments/reports are seen by examiners it is important that the version of the assessment material the comments/report relate to should be standard across the programme to ensure equitable practice. Ideally this would be the final, submitted, version.

Divisional guidance is that conventions should be clear on what usage should be made of these supervisor reports. Recent practice has seen particular cohorts of examiners deciding on whether they wish to see reports, and at what stage they are made available, this gives rise to variable practice across years. In this situation departments would be further advised to reconsider the content of current reports and the use it wishes the examiners to make of them in light of this guidance. Conventions should be revised based on the decisions.

Explicit advice should be given to supervisors regarding the exclusion of comments regarding medical circumstances and other similar matters which are dealt with by the Proctors and their impact managed elsewhere in the examinations process.

Caution is advised where supervisors are asked to suggest a classification. It is the view of the Division that making the supervisor a formal assessor (if a classification is required from them)rather than asking them to make informal suggestions is preferable (see policy vii above).

APPENDIX A: Summary policies

Following are the seven divisional policies for undergraduate and post graduate taught projects for MPLS departments / programmes.

1. All undergraduate projects have a face to face mechanism with students to introduce substantial projects. Both UGRAD and PGT projects should be supported by detailed written guidance of project selection mechanisms.

2. Departments / programmes ensure that there is clear and succinct summary information about how students could select a project, the resources available to assist in decision making, the allocation process and the requisite timeline for decision making.

3. Departments / programmes ensure clear, written, guidance is available on framework and scope for the type of project, including help on such things as: lab, field, computational or experimental constraints and obligations, expected content of report/thesis, formatting, referencing and plagiarism. The document should reference all available supporting materials.

4. Departments / programmes use a clear and comprehensive marking schema that is accessible to students, supervisors and examiners.

5. Expected levels of supervision (supervision norms) and the role of the supervisor should be clearly detailed and explained in written project guidance.

6. Expectations for the provision of feedback on project work, along with a suggested timescale, should be clearly detailed and explained in written project guidance to allow the student to manage the progress of their project and their expectations of what assistance they will receive.

7. If a project's supervisor is also an assessor of an undergraduate or postgraduate taught student's project, departments must follow the procedures described on page 4.

8. It is suggested that departments and programmes use a template report form for their projects. The required content can be split into two parts to allow for the provision of simple factual information separately to the supervisor's opinion of the project (the latter part would be optional). This will allow departments to decide the level of information they think appropriate to seen by the examiners. It would be useful in the factual information for the supervisors to include an indication of the level of support given during the project.

Annexe B – Extracts from Materials Part II handbook

http://www.materials.ox.ac.uk/teaching/part2/pt2handbooks.html

Supervision and Training

The following teaching norm has been adopted by the Department of Materials for the supervision of MS Part II projects:

"Responsibility for the project rests with the student, who should be proactive in seeking support and guidance when necessary and in making use of existing written resources. MS Part II students should expect to hold regular meetings with their supervisor. These will normally be held at least every two weeks for the duration of the project but significantly more intensive support is usual in the initial and final stages of the project. The support given by the supervisor at these scheduled meetings may include formal discussion of research, feedback on the student's derivations, analyses of results, thesis drafts etc. that have been read by the supervisor and direction to relevant literature. These meetings will often be supplemented by brief discussions of particular aspects of the research on an ad hoc basis, as required for the investigation to progress smoothly. Further support will be given in the techniques required for the student to carry out their research. Examples include the use of equipment and the performance of experimental techniques, training on modelling software and computer programming and tuition in mathematical methods. Students should note that (i) it is in the nature of research that not all projects require the same type or level of support, and (ii) for some projects the supervisor will personally deliver specialist training, whilst for others such training will be provided by informal mentors or via scheduled Departmental training courses."

MS Part II Thesis Assessment Report and Marking Guidelines

The guidelines outlined below were used by examiners in 2014 to assess theses.

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

1	a Aims and objectives of the project? b Are these clearly identified in the thesis?
2	a Is the account of project management clear? b Does it show that the thesis was well managed? c Were the original objectives kept to, and if they were changed, is it shown why?
3	Has the candidate identified the engineering (or equivalent) context of the work?
4	Is the background literature to project reviewed adequately? (comprehensively, focussed on the project's area and *critically.*)
5	a Are the methods and analysis of data used in the project clearly described? b Did the student develop any new methods?
6	a Are the "raw" results attained clearly described? b Are the results analysed adequately and appropriately? c (if appropriate) Are errors handled adequately?
7	Are the results properly discussed - a in themselves? b in relation to previous work in the area? c in relation to the aims and objectives of the project?
8	a What do you consider to be the main achievements of the project? b Are these clearly identified in the thesis?
9	a Indicate any weaknesses which you may have found. b Does the thesis show awareness of these
10	Does the thesis show original thinking on the part of the student?
11	Comment on the quality of the report (use of English, overall style, quality of diagrams and

	figures, use of references to previous work, etc.).
12	Additional comments.
	Overall mark and short justification:

The following anticipated guidelines will be used by the examiners to assign marks (in percentage terms) for the MS Part II Thesis 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.

MS Degree Final Mark Guidelines

The final marks for the Materials Science degree in its entirety (Part I exams and

coursework, and Part II) conform to the University's standardised expression of agreed final

marks, as follows:

70-100 First Class (I)

60-69 Upper Second (IIi)

50-59 Lower Second (IIii)

40-49 Third (III)

30-39 Pass

0-29 Fail

With the qualitative descriptors for each classification level being:

Class I The candidate shows excellent problem-solving skills and excellent knowledge of the material over a wide range of topics, and is able to use that knowledge innovatively and/or in unfamiliar contexts.

Class IIi The candidate shows good or very good problem-solving skills, and good or very good knowledge of much of the material over a wide range of topics.

Class IIii The candidate shows basic problem-solving skills and adequate knowledge of most of the material.

Class III The candidate shows reasonable understanding of at least part of the basic material and some problem solving skills. Although there may be a few good answers, the majority of answers will contain errors in calculations and/or show incomplete understanding of the topics.

Pass The candidate shows some limited grasp of basic material over a restricted range of topics, but with large gaps in understanding. There need not be any good quality answers, but there will be indications of some competence.

Fail The candidate shows inadequate grasp of the basic material. The work is likely to show major misunderstanding and confusion, and/or inaccurate calculations; the answers to most of the questions attempted are likely to be fragmentary.

Annexe C - Biological Sciences Supervisors' Project report form

FHS BIOLOGICAL SCIENCES 2014

Project Supervisor's Report	Candidate's Name (in PENCIL only, please): .....

Project title:

Thank you for supervising the above project that is being examined in this year's Final Honours School. This part of the FHS course is designed to test a student's ability to conduct original research. There are of course many elements involved in being a good research worker and you, as Supervisor, will be very aware of those elements that are not well represented by the Project write-up alone.

It is therefore **important** that the examiners should see your own assessment when making their reports, and I would be most grateful if you could complete the following set of questions about the performance of each candidate under your supervision. Please note that candidates should not be penalised if experimental projects failed to produce good results, unless this arose from defects in experimental design that should have been spotted and remedied beforehand. In question 16, please assign the **exact mark** (rather than a range) that you consider your candidate deserves: unlike the responses to 1-15, your mark will not be shown to the assessor or marking examiner, but it greatly helps me if there is a sizeable discrepancy between them.

It is not unusual for supervisors to have seen only an earlier (or no) draft, so Susan Jackson will send you a pdf of the submitted project as soon as she receives it.

Stephen Kearsey, *Chair of FHS Examiners, 2014*

Please circle the score or category that is most appropriate: (the option 'NA' on some of the questions may be necessary for projects that continue work already in progress in your laboratory)

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1. How aware did the candidate make her/himself of the background literature (indicating having read around the Project area)?

1	2	3	4	5
Well aware		Reasonably aware		Unaware

2. How well did the candidate formulate the research question(s) addressed by the project?

1	2	3	4	5	NA
Very well (i.e. independently)		Reasonably well		Not satisfactorily, or needed help	

3. How original was the project, and how clearly was it thought through by the candidate?

1	2	3	4	5	NA
Very original and well reasoned		About average		Un-original/poorly reasoned, or needed help	

Continued……

4. Were the research methods chosen by the candidate appropriate?

1	2	3	4	5	NA
Very appropriate		Satisfactory		Inappropriate, or needed help	

5. How well did the candidate carry out the experiments/observations?

1	2	3	4	5
Very well		About average		Poorly, or needed help

6. How well did the candidate analyse the project data?

1	2	3	4	5
Very well (originally/independently)		Satisfactorily		Poorly, or needed help

7. How well did the candidate discuss the project results in the write up?

1	2	3	4	5	Not seen
Very well (originally/independently)		Satisfactorily		Poorly, or needed help	

8. How much help did the candidate need/receive during writing up?

1	2	3	4	5	Not seen
None		Some		A great deal	

9. To what extent does the Project overall represent the candidate's own independent work?

1	2	3	4	5	NA
Entirely own work		About average		Excessive help needed	

10. How much time did the candidate spend on the project?

1	2	3	4	5
Too much		About the right amount		Too little

Continued……

11. How many problems were encountered during the project?

1	2	3	4	5
None		A few		Many

Please note below the reasons for any severe problems:

12. In your experience with research students at about this level, what percentile category does this student fall into as a research worker (i.e. here you are estimating the student's potential rather than actual performance with this project)?

1	2	3	4	5
Top 10%		Middle %		Bottom 10%

13. How many hours did the candidate spend on the project?

14. When was the project conducted?

Start date: Completion date:

Continued……

15. Please make any further comments that you think may help the Examiners (in particular, identify any material which has not been adequately covered in the assessment above).

[Please do NOT refer to the Candidate by name or gender]

The mark below will be seen only by the Chairman of Examiners

16. Supervisor: ..... Suggested Mark: .....

Please suggest a mark according to the scheme below (the mark will be used to identify any major discrepancies in Supervisor and Assessor evaluations):

1st	90-100	An excellent project, comparable in standard to work published in a good quality journal.
	80-89	An excellent project, comparable in standard to a good chapter in a doctoral thesis.
	70-79	A very good project, clearly presented, with evidence of originality or input of considerable effort.
2.1	65-69	A good project that is mainly clear and shows good execution of research methods.
	60-64	A satisfactory project which is reasonably clear and well structured.
2.2	55-59	A just satisfactory project, with some deficiencies or misunderstandings.
	50-54	A weakish project, with significant shortcomings in execution and/or presentation.
3rd	40-49	A poor project, with multiple shortcomings.
Pass	30-39	Some attempt at the exercise, but seriously lacking in planning, content and presentation.
Fail	0 -29	No serious attempt at carrying out the exercise.

Please return by Friday of 4th Week (*February, 14th 2014*) to the Chair of Examiners, c/o The Teaching Admin Office, Department of Plant Sciences, South Parks Road.