Report

A report must be submitted for each semester of the MPhys Project, irrespective of whether the project lasts one or two semesters. Additional advice for two-semester projects is provided below. Reports should be submitted via Turnitin (via Canvas) as a single PDF file, including any appendices. See below for further details, and consult the "Key dates" for the deadlines in each semester.

Each student must write and submit their own separate report. You should highlight your personal contributions to the project by spelling these out in detail, while listing and crediting your partner's contributions at appropriate points in the account. Work that has been done jointly should be described by both partners.

The reports are marked separately by two independent assessors, who subsequently agree the final report mark and provide feedback. Supervisors are not involved in the marking of the reports, but they provide feedback to the independent assessors.

Style, presentation and length

The projects are diverse in nature, and it is therefore not possible or helpful to give an exemplar of the MPhys report. Instead, you should consider the general remarks below, discuss the content and style of your report with your supervisor, and take advantage of the opportunity to submit a draft report outline for general feedback. Note that some of the points below might not be fully applicable to your particular project.

One of the most important aspects of carrying out a research or development project lies in presenting your results in a clear, accessible and engaging way. To this end, we ask you to produce a report that

i. Introduces the project in a way that can be understood by a non-expert reader.
ii. Gives an account of the work programme that you (with your supervisor) decided on initially.
iii. Describes the detail of this work programme, with particular reference to changes or innovations introduced by you in light of experience.
iv. Illustrates the results you obtained in tabular or graphical form.
v. Provides a critical discussion of these results.
vi. Summarises your conclusions about the successes or failures of the various techniques that you tried.
vii. Makes recommendations about potential directions for future work.

You may be advised that the ideal presentation corresponds to that found in scientific papers. This is not necessarily true. Pressure on space in scientific journals has resulted in the extensive use of jargon, acronyms, multiple adjectives, and references to earlier work in lieu of detailed explanations. None of these is necessary desirable in an MPhys report.

The guideline total length of all reports is 20 A4 pages, including figures and references. Margins should be at least 2 cm, and the text size should not be smaller than 11 pt. Excessive length, conciseness, or verbosity will count against you in the assessment of the clarity and style of the report. The report should be submitted as a single PDF file, electronically typeset or word processed. Title pages, including the abstract, tables of contents, and appendices do not count towards the page limit.

Appendices could include code, detailed instructions on how to use equipment or software, or extra figures. However, the report should be understandable without reading the appendices, and you should not assume that appendices will be read in any detail by the assessors or considered when marking.

Reports should be professionally presented. This means that figures should be of good resolution and readable, with meaningful axis labels and units where applicable. Tables should be used to aid understanding. Figure and table captions should be clear, concise and informative. Reference lists should be comprehensive, and citations should be complete, appropriate to the format of the reference (journal article, proceedings note, thesis, book, etc.) and consistently formatted.

Two-semester projects

In terms of assessment, a two-semester project is treated as two separate one-semester projects. The second-semester report and its assessment should focus only on the results obtained during the second semester.

It is expected that the second-semester report can be understood without needing to read the first-semester report. To this end, it may be important to introduce key results, concepts, methods, or derivations from the first-semester report, but this must be done in a way that avoids self-plagiarism. This challenge is faced whenever publishing research that is a continuation or extension of previously published work. You should ask your supervisor for advice about these issues, but avoiding (self-)plagiarism is utimately your responsibility. Remember to treat your first-semester report like any other piece of the existing literature.

Report submission

Your report must be word-processed and submitted by the relevant deadline (see "Key dates") via Turnitin as a single PDF file, including any appendices. Students using TeX or LaTeX should read the instructions below related to conversion to PDF.

Late penalties

All submissions made on Turnitin receive a time stamp, and penalties apply for late submissions (see the undergraduate handbook for details). Please note that there is no grace period on submissions: a report that is submitted 1-minute late will receive a 1-day time penalty. You are strongly advised to submit provisional versions of your report before the final version, and all well before the deadline. By updating the submission, which you can do up until the deadline, penalties due to technical issues (see below) can be avoided.

Please note that failure of third-party cloud services, such as Overleaf, will not be considered a valid reason for late submissions. You should keep regular local backups to mitigate against this possibility.

Technical issues

Technical issues should be documented with screenshots or photos. Note the time and date of relevant events, and send a copy of your report via email to **peter.millington@manchester.ac.uk (mailto:peter.millington@manchester.ac.uk)** well before the deadline, so that you have evidence of completing the report in time. Once any technical issues are resolved, submit your work via Turnitin as soon as possible, even if the deadline has passed. Do not submit large files (of more than a few MB), as this can cause problems.

Submission checklist

Please tick through this check list before submitting your report:

1. Have you given your report a sensible title and included your last name on the report?
2. Have you checked the file size is not too large?
3. Have you tried to open the PDF file in Acrobat Reader?
4. Have you read and understood the submission instructions?
5. Have you completed Stage 1 of the submission process on Canvas?
6. Have you uploaded your report in Stage 2 via Turnitin? Do not upload your report to the stage 1 Canvas assignment.
7. Have you viewed your submission on Turnitin and downloaded the time-stamped digital receipt from Turnitin for your records? (The email confirmation that you might receive is probably for Stage 1 of the submission only.)

How to upload a report

Specific instructions for the submission process will be provided in good time before the deadline. Please read these instructions carefully well in advance of the deadline, so that you have all the information necessary to complete the procedure and avoid unnecessary late penalties.

Reducing the size of your report

Please limit the size of the PDF file to a few MB to avoid technical issues. Large file sizes are usually caused by the inclusion of large images. The best solution is often to convert vector files (SVG, TIFF, PDF, EPS) to bitmap files (PNG, JPG, GIF), or to reduce the resolution. You will find many tools online that you can use to do this; **ImageMagick** ⤤ **(http://www.imagemagick.org/)** is one example.

LaTeX instructions

If you choose to prepare a report in TeX or LaTeX, you need to be careful with your choice of method for producing the final PDF file. One of the ways to produce PDF output does not work

correctly for electronic submission: do not produce a postscript file (typically with a tool called dvips) and then use ps2pdf or Acrobat Distiller to produce a PDF file. If you use an integrated environment like TeXshop, Lyx or Kyle, the way to avoid this route may not immediately be obvious. However, all of these provide alternative methods that will produce useable PDF files. We have tested production using pdflatex and LaTeX followed by dvipdfm with a variety of choices of fonts (standard, Times, etc.), and both produce usable output. Working with Overleaf should be straightforward.

How to test if a PDF file is suitable for submission

If you can extract readable text from your PDF files, the file is okay. To test this, use "pdftext", if installed, or a website like **http://www.convertpdftotext.net/** ⤷ **(http://www.convertpdftotext.net/)** to convert your PDF to text.