MD4002
Module Handbook
2024-2025

University of St Andrews | FOUNDED 1413

Contents

1 MD4002 OVERVIEW

MD4002 commences on **Monday, 09th June 2025.**

Students will undertake an Honours level Student-Selected Component (SSC) (40 Credits) in the form of a research project. The SSC will enable students to pursue an area of their own particular interest at an advanced level and further develop their critical appraisal skills. All projects must be completed with a supervisor from the School of Medicine (which includes Honorary staff).

Introductory lectures and workshop sessions covering core skills of critical appraisal, referencing and advanced literature searching will be held for all students. There are also guided studies on plagiarism and how to write a plain English summary. In addition, there will be sessions for lab-based project students on working in the laboratory and for data project students on using statistical packages.

There will be weekly meetings with your supervisor to decide on the dissertation topic, formulate a research question/research hypothesis and to monitor progress. You and your supervisor should discuss the learning contract (see Appendix 1). The learning contract is provided as a portfolio task for this module. After discussion with your supervisor in week 1 please **sign and upload the contract**. Your supervisor will then be alerted and must also sign off to indicate the contract was discussed and agreed.

There will be a series of workshops within your topic strand to further develop core skills. These may take the form of discussions around assessing research quality, clinical case discussions, journal club discussions or clinical reasoning sessions. Students will also gain practice in presentation skills by giving a short presentation (5 min) on their chosen topic and research aims in week 3. All students are expected to attend and contribute to these sessions, attendance will be taken. Students should self-certify absences in the standard way.

Assessment of this module comprises of a written dissertation (95%) and an oral presentation (5%). Students will additionally submit a formative reflective portfolio entry.

Specific learning objectives include:
- Develop an understanding of scientific methods, including technical and ethical principles used when designing experiments and other research
- Develop the ability to use resources in a systematic and organised fashion
- Develop an inquisitive and questioning attitude and apply rational thought processes
- Be competent in literature searching using online methods
- Understand the structure and organisation of a scientific paper
- Be able to formulate a workplan in order to complete a task at an appropriate level in a defined time frame
- Prepare a dissertation on a selected advanced topic demonstrating critical thinking, analysis and understanding of the topic
- Summarise the findings of the dissertation topic and present them to an audience
- Develop reflective practice using a portfolio entry for a significant learning event

2   MODE OF STUDY (SUMMER COHORT)

2.1   In-Person vs Remote Delivery

Students have already indicated whether they are undertaking the module in person or remotely. This decision is fixed and cannot be changed once the timetable has been finalised. All workshops, formative presentations, and summative presentations will be delivered according to the selected mode and will appear in Galen as either online or in-person sessions. Supervisor meetings will also be arranged accordingly.

2.2   Study Space/cafe

Access to the ground floor rooms is handed over to central University over the summer. Study Space will be available in the CARC, the wedge and University Library. The café may not be open everyday due to conferences taking place in the building.

2.3   Access to the building

Students will be given swipe access to the School during the hours of 09:00-17:00 Monday to Friday only.

3   THE DISSERTATION

The written dissertation contributes 95% of your module grade. The total number of hours that a student should devote to their project should reflect the fact that it accounts for full-time study on this module. The topic of your dissertation will be discussed with your supervisor who will help you focus on a suitable topic. This must be approved by your supervisor.

All dissertations must answer a specific research question or research hypothesis and should include critical appraisal of the literature to answer this question. In the case of data and lab projects, an appraisal of your own results is also required. It is not acceptable to write a descriptive dissertation. For example, you cannot write a dissertation on "The properties of aspirin", but you could research the question "In adults with a high risk of colorectal cancer, does regular aspirin use compared to no aspirin use reduce the incidence of colorectal cancer?". Guidance and feedback will be given on aspects of all sections of the dissertation, **except the Discussion, and Abstracts, which must be written without assistance.** General discussion with your supervisor about the structure and content of your discussion and abstracts is acceptable.

For the research dissertation you are expected to make extensive use of published literature in researching your topic. Make full use of the NHS library and the facilities of the University library including obtaining articles through the Inter-Library loans service; this can be slow so please plan ahead and refer to information here:
    https://libguides.st-andrews.ac.uk/InterLibraryLoans.

3.1 Dissertation Structure

The dissertation must be produced as a word-processed document and converted to a PDF for submission.

As when writing a scientific paper, guidelines are provided on the basic text layout in order to facilitate easy reading of your work:

- Use at least 1.5 line spacing and an accessible font (a sans serif font such as Arial, Aptos, Calibri, Helvetica) with font size 11 or higher.
- Leave a 2 cm margin on each side. (If you want to print your dissertation at any point then you should leave a wider margin on the left side than the right to allow for binding, e.g. 3 cm left and 2 cm right).
- Note the School do not print hard copies of dissertations, but the University Print and Design team can provide a price for printing and/or binding if you would like a hard copy (https://www.st-andrews.ac.uk/print-and-design/dissertation-and-thesis/). Note that print credits are not accepted by the Print and Design team.

The dissertation should be 10,000 words in length, +/- 10%. You should aim for the following distribution of content for the different project types:

- **Critical review projects:** 30-40% Introduction, 10-20% Methods and Results, 50% Discussion.
- **Data handling and lab projects**: 30% Introduction, 30% Methods and Results, 40% Discussion.

The dissertation should include the following sections, where relevant, in this order:

Title page: Title, Candidate Number and Date. The template for you to use will be available on Galen prior to submission. **Do not put your name on the title page, or anywhere else in your thesis.** Do not **alter the title page in any way.**

Signed thesis declaration form: This will be available on Galen leading up to the submission date. You must complete this form, and your dissertation will not be accepted without this. Please complete the word count table for each section relevant to your thesis. Also complete the individual declaration statements and add your candidate number where indicated. The thesis declaration form must be incorporated into the dissertation pdf prior to submission.

Contents list: This should include page numbers. In Word format it is suggested that this be navigable (i.e. made by applying appropriate styles to your headings to enable an automated contents list to be produced and be able to use the navigation pane). Please ensure that this is retained when converting your document into a PDF for submission.

List of Figures and Tables: Title of figure or table, with page numbers.

List of Abbreviations: All abbreviations used, giving the full text version.

Scientific Abstract: Single page summary (maximum 350 words). This summary should be written for someone with the same scientific background as you and may refer to the background, methods, results, and study conclusions.

Plain English Summary: Single page summary (maximum 350 words). This summary should also cover content from the background, methods, results and conclusions but should be written for a lay audience with no scientific background, and therefore technical terms should be avoided.

Introduction (Including Aims and Objectives): This section should include a summary of the research topic and "introduce" the reader to the research question being asked or **research hypothesis** being tested. Therefore, these should be **clearly stated**. In this section you should include what has already been done in the research area, explain if there are gaps in the existing research, and explain why the research/review is warranted. It may be important to highlight if there are controversies/disagreements in the research area, which may help to substantiate why your research/review is needed. Depending on the nature of the topic, the introduction may be divided into sub-headings to break up the topics discussed. The final section of the introduction should be a specific **Aims and Objectives or Hypothesis and Objectives section**. Citations of relevant work must be placed appropriately throughout the main text.

Methods: All projects require a Methods section including a description of analysis used (if performed). For data projects the methods include all the essential information necessary to repeat the analyses.

For **lab-based projects**, include a description of materials and methods used for the experimental work.

For **data-handling projects**, include a description of methods used to analyse data.

For **critical review projects**, the literature searching methodology should be explained clearly and logically. This should include the following components: Selection criteria (e.g. Inclusion/Exclusion Criteria; see PICO or PICOSS models); how articles were found (e.g. search strategies and databases used); how the articles were selected. The methods may also describe how article quality was assessed (e.g. NICE algorithm, CASP checklist, etc.); describe how data was extracted (if appropriate); explain how bias was assessed (e.g. bias tool); describe how data was analysed. **Please consult your**

supervisor regarding which methods are most appropriate for your project.

Results: **Data handling** and **lab-based projects** will have a results section reporting the findings of your study including appropriate tables and figures (with table and figure legends included, respectively).

Critical review projects should also have a results section, which will include a concise text summary and often includes tables showing the results of the search (e.g. using PRISMA flow diagram), the study attributes/characteristics and results (e.g. using CONSORT checklists). The exact contents of the results section of critical review projects will differ between strands and between dissertations due to variations in your questions, and studies reviewed. However, **in all cases there is expected to be a short text summary included**. Please consult your supervisor regarding the most appropriate results format for your project.

Discussion: This is where you show your appraisal skills and synthesise your findings to answer your research question(s). In this section, you should interpret your own results or those of your articles, taking into account your study objectives and / or hypotheses, current theory and other relevant studies in the literature.

For **critical review projects** this will involve identifying common themes across papers rather than a paper-by-paper analysis.

For **data or lab-based projects**, this involves interpreting how your experimental findings relate to relevant publications. This section should include discussion of your study or article strengths and weaknesses, study limitations including potential sources of bias, and any imprecision associated with the findings. The implications of the findings should be placed into the wider context, for example implications for future research or practice (where appropriate). Students may wish to include a discussion on any future experiments that could be designed to expand upon the findings from their project.

Final conclusion: A short summary section drawing the project to a final summary and conclusion.

References: One hundred references maximum. See detailed explanation of the format in the Referencing section below.

Appendices: Can be used for raw data, or additional details of literature searching strategy (e.g. if full search terms for only one database were included in the main text), or additional tables, or scripts of coding used for analysis, etc. Although these do not contribute towards your dissertation word count, they should be used sparingly. Please only include information that is pertinent and keep the size and number of appendices to a minimum.

If your project required **approval from the University Ethics Board** then then a copy of the approval letter (anonymized) should be included as an appendix and referred to in the methods section of your dissertation.

3.2 What contributes to the word count?

Included	Excluded
Introduction	Title page
Aims	Scientific and Plain English Abstracts
Methods	Table of Contents
Results written as text	List of figure/tables
Discussion	List of Abbreviations
Conclusion	Declaration
	Figure/Table Legends
	Tables (incl. any results in tables)
	Reference list
	Any appendices

Note: Titles within the included sections are included in the word count.

3.3 Inclusion of Tables and Figures

Figures and tables are a really useful way of summarising a lot of data or clarifying a complicated concept visually.

Tables and Figures should be numbered sequentially throughout the dissertation and include a legend with a title and then description of what is presented. Tables and figures need to be referred to in the text if they are included.

Figures can be made by students themselves e.g. using PowerPoint or other software such as BioRender or can be taken from a paper as long as they are fully referenced. If students create an image based on a figure from a paper e.g. creating a simplified version, then this must also be referenced e.g. '*modified from [cite reference]*'

4   ACCESSIBILITY

Students will be required to complete the Digital Accessibility Basics course and will be required to follow best practice in terms of use of fonts and headings in the dissertation and presentation.

5 DISABILITY

Students who are registered with the University as having a disability or learning difficulty, which they think may impact on their dissertation, may want to discuss this with their supervisor or the medsupport team (medsupport@st-andrews.ac.uk) at the start of the module.

6 ENGLISH LANGUAGE CORRECTION

The University has a policy on language correction, which you can access here:

https://www.st-andrews.ac.uk/students/advice/academic/languagecorrection/

There are clear rules on what is allowed, and what is not, so please consult the policy before asking anyone to look at your work. Any language correction assistance must be explicitly acknowledged. Students who are registered with Student Services as having a disability or learning difficulty for which proof-reading or language correction is recommended are not required to acknowledge this assistance but may wish to do so.

As discussed below (section 11.3 Unauthorised use of AI), the use of generative AI (which includes Grammarly) is not permitted.

7 DISSERTATION SUBMISSION AND EXTENSIONS

Specific details on how to submit your dissertation will be provided nearer the time.

The deadline for final submission of your dissertation online (please use pdf format) is:

12 noon, Tuesday, 29th July, 2025

You will submit a PDF of your dissertation online using MMS. The submitted file must be named with your candidate number only: ***CandidateNumber.pdf***. The dissertation will then be subject to plagiarism checks (please do not run your dissertation through any plagiarism software before submitting as this will then be picked up when it is submitted through TurnitIn). It is your responsibility to check that all the pages are in the correct order and facing in the right direction, and that all figures are showing correctly, prior to electronic submission. **No corrections or alterations can be made after the final submission deadline.**

The submitted dissertation must include a thesis declaration page incorporated into your dissertation as described under "Dissertation Structure'. Remember to include your CANDIDATE NUMBER on the thesis declaration page. A template for this declaration page is provided closer to the submission date.

In addition to the dissertation, you must also submit two other forms:

    a) MD4002 evaluation questionnaire
    b) Portfolio entry

The deadline for submission of the additional two completed forms is:

    12 noon, Thursday, 31ˢᵗ July 2025.

7.1 *Late Submissions*

There are penalties for late or incomplete submission of the dissertation as per University policy (1 grade point per 24 hours late - this includes weekends and public holidays). Computer problems are not a valid excuse for late submission. Submissions which are more than 7 days late without granted extensions will not normally be accepted by the School and may result in a 0 being reported for that component.

7.2 *Extensions*

Extensions will only be awarded in extenuating circumstances and should be requested using the online form Extension Request Form. Extensions should be requested well in advance of the deadline and will require submission of evidence as requested by module controllers.

8   THE ORAL PRESENTATION

The oral presentation is a compulsory element which is graded as **5% of your module grade**. You will be asked to present a short 10-minute talk with visual aid (e.g. PowerPoint or other), plus 5 minutes for questions, summarising your project work. It is recommended that you consult with your supervisor about the general content of your presentation. As you will have received feedback on your presentation skills during the formative presentations in week 3, supervisors are asked not to rehearse your oral presentation with you or look at any presentation slides you produce. You will be assessed primarily on your presentation and communication skills. The presentations will be timetabled together in sessions for each topic strand. The **presentations will be held on Friday, 01ˢᵗ August 2025**. The timetable for individual presentation sessions will be released after the Dissertation submission date. For both presentations, you will upload your slides in advance via the portfolio task related to the element page for the presentations, absolutely no later than the evening before the presentation itself (because all presentations are assembled by the assessment team for each session ensuring smooth running of the examination).

9   PORTFOLIO ENTRY

Each student is expected to submit a portfolio entry specifically using the portfolio form available on Galen. This reflective piece should cover aspects of your project such as project planning, challenges and general progress. The portfolio can be used to record both positive

and negative aspects of the project. The portfolio will be reviewed by your supervisor but will not form part of the assessment. A final copy must be uploaded to your e-portfolio by the deadline noted in the "dissertation submission" section.

10 ETHICS AND SAFETY

Students must be fully aware of the safety, ethical and legal issues relating to their studies.

10.1 Research/audit project ethical approval requirements

The School of Medicine has an Ethics Committee (Convenor: Prof. David Harrison) consisting of a mixture of members from within and outside the University. Information on submission of ethics proposals can be found at:

https://medhandbook.st-andrews.ac.uk/ethics-commitee/

All research work involving human subjects, human data, human tissues, or other samples will be scrutinised by the School Ethics Committee. For information about research that is likely to require ethical approval, please see the UTREC website:

http://www.st-andrews.ac.uk/utrec

All research involving animal subjects or using animal tissue will be scrutinized by the University Ethics committees, including the Animal Welfare and Ethics Committee (AWEC) and may require Home Office approvals (licences), please see the Animals in research website:

https://www.st-andrews.ac.uk/research/integrity-ethics/animals/

Your supervisor will be aware if your project requires any ethical or other external approvals. Research involving children will require special oversight by the Children's Panel. In cases that involve subjects from other institutions, ethical approval may be required from the ethical committees of these institutions. This is the case in studies involving NHS patients or staff or taking place on NHS premises.

The necessary approvals MUST be in place BEFORE the start of the project/access to data. Students should discuss ethical approvals with their supervisor at the start of the semester.

It is a University requirement that any Honours dissertation that required ethical approval from the University Teaching and Research Ethics Committee (UTREC), should have the letter or email of ethical approval bound into an appendix before submission. **Please incorporate this into your submitted dissertation PDF**. To preserve your anonymity, please blank out your name if it appears on the ethics approval letter.

10.2 Safety

To this aim, students will be expected to be aware of the University policies on safety and to attend appropriate safety courses provided by the University. Students must adhere to all legal requirements governing experimental procedures. It is YOUR RESPONSIBILITY to read any safety information that is provided.

PLEASE NOTE: you must **NOT** proceed with any work involving radioactivity, carcinogens, toxic chemicals, microbiological hazards, genetic modification, animals, human subjects or human-derived materials **without appropriate risk assessment**, **training and authorisation.**

11 ACADEMIC MISCONDUCT

The University of St Andrews expects all students to use good academic practices, and to avoid plagiarism, collusion, contract cheating and unauthorized use of AI. Your attention is drawn to the advice at:

http://www.st-andrews.ac.uk/students/rules/academicpractice/

including the FAQs document:

Good academic practice: Guidance for students and Frequently asked questions document.

11.1 Plagiarism

Plagiarism is the act of taking another's ideas and representing them as one's own. This covers not just using words, but also, for example, concepts, ideas, data, designs, images, computer programmes and music. Note that it refers to ideas, not just to words, so even if you express someone else's ideas in your own words, the source of the idea must still be acknowledged.

For worked examples of what is and what is not plagiarism, see the MD4002 Guided Study "How Can I Avoid Plagiarism?" and for further information and discussion on plagiarism avoidance and good academic practice see the MD4002 element 'Plagiarism and Referencing'.

11.2 Contract cheating

Contract cheating is where a student asks someone else to complete some part of a piece of work. This includes paying for this service but also asking a friend or relative to complete any aspect of your work. As stated above you can get help with proofreading, but be sure to consult the guidance on Language correction.

11.3 Unauthorised use of AI

The use of Generative AI (e.g., large language models like ChatGPT) is **NOT authorised** for generation and/or modification of any text relating to the dissertation or the presentations examined in MD4002. This includes, but is not limited to:

- Generating or paraphrasing content with AI and submitting it as your own work.
- Using AI to reduce word count or enhance content.
- Producing a summary of your dissertation with AI.

The basic spell check and grammar check functions within the standard MS Word application (e.g. without add-ins such as ChatGPT for Word) are acceptable. The use of Grammarly is not permitted due to the inclusion of generative AI in this tool.

For projects that require the use of data analysis packages that involve coding, e.g. R, Python, etc., generative AI may be used to troubleshoot. Where this has been used, this must be stated and referenced in the methods section. A record of the prompts used to troubleshoot the code with AI should be recorded in a digital lab book and the final code for the analysis provided in the appendix.

All students are required to sign a declaration to confirm compliance to the AI guidelines, as part of the thesis declaration to be included with submission. Details will be released in the "Dissertation submission – final details" admin session (week 6).

Any instance of unauthorised use will be addressed under the University's Good Academic Practice policy and may lead to academic misconduct procedures.

Students are strongly encouraged to consult the **University Good Academic Practice Policy** and the **Guidance Document** for further information.

11.4 Collusion

Collusion is defined as the submission by two or more students of the same or similar pieces of work (or parts of pieces of work) which are presented as the individual's own solely authored work. This could arise from students working together to complete the work, or by one student allowing another to copy his/her work. Copying without the author's permission is not collusion but taking another student's work without permission is theft and constitutes a disciplinary offence.

11.5 How to avoid problems of collusion

Students can of course help and support each other, and this is to be encouraged. It is a question of knowing where to draw the line. The following list provides examples of forms of co-operation with fellow students, which are to be encouraged:
- notifying them of useful reference
- directing someone to a source for an idea
- shared discussion and development of ideas
- jointly identifying ideas from a third party
- discussing what the assessment requirements involve
- discussing the techniques used in calculations
- sharing books and articles

To avoid collusion though, you should:
- write the assignment on your own in your own words (except to the extent you cite references)
- not copy verbatim or in substance part or all of the work of other students
- take care to keep your work secure

12 MARKING PROCEDURE

12.1 Dissertation

Your dissertation counts for 95% of the Module grade. It is marked independently by your supervisor, and another member of staff with knowledge of your project area. The marking descriptors used will be available for you to view on Galen at the start of the second semester. If there is a difference of more than two grade points between markers, then they will be invited to meet and moderate their marking with reference to the feedback provided by the other marker. If required, a third marker may be invited to grade your dissertation. In all cases, the grade awarded is the mean of all markers.

12.2 Oral Presentation

This counts as 5% of your module grade. This is assessed by 2 members of staff. Neither assessor will be your supervisor. The grade for your presentation will be the mean of both markers. The marking descriptors used will be available for you to view on Galen at the start of the second semester.

Overall module results (combined dissertation and presentation) are presented rounded to the nearest full grade. A panel of external examiners review our marking processes, read individual dissertations and can watch recordings of presentations prior to confirmation of grades, to ensure the process is fair and the grades awarded appropriate.

Detailed feedback will be provided to you following the release of your module grade: you will be provided with the comments and marking grids generated by each marker involved in assessing your dissertation.

You must pass both your written dissertation and oral presentation in order to pass the MD4002 module.

13 REFERENCING GUIDELINES

The final dissertation should cite **no more than 100 key references** depending on the area of research (note this is a maximum). References should come from reliable sources, e.g. peer-reviewed academic journals, or agencies such as the World Health Organisation or NICE. Although references can, in some cases, be from websites that may summarise health or scientific information, be cautious in your use of web material and verify the reliability of the information. You may also wish to use books, but these should usually be specialised texts. Use of general medical or scientific textbooks should be limited as they will not be of sufficient depth for this project.

Referencing is essential so that you can acknowledge the work of others, and so that the reader knows where to find further information if necessary. Failure to reference properly is not only bad practice but may lead to allegations of academic misconduct for which the university has severe penalties.

In MD4002 you can use EITHER the Vancouver method OR Harvard method (detailed further below). In the Vancouver method, numbers are used in the text to denote a reference and then these are listed in numerical order at the end of the work. Using the Harvard method, the author and the year are given in the text, and the references are listed alphabetically at the end of the text. There are advantages and disadvantages to both methods, and you may wish to discuss with your supervisor which method is the most appropriate to use. In either case it is your responsibility to check the accuracy of your referencing. **We highly recommend you use a reference manager software such as Endnote which is available via Apps Anywhere.**

13.1 Vancouver Method

13.1.1 Referencing in the text

References should be numbered in the order in which they appear in the text. The numbers should be indicated in brackets.

Example: In response to extreme cold, histamine is released into the circulation (1). This affects the response of the complement system (2).

13.1.2 Quoting from references in text

It is more usual to summarise a point from a paper or report and then cite the reference. However, in some circumstances there will be good reasons why a direct quote is more appropriate. When including a quote, use single quotation marks and indicate the page number. Quotations of more than one sentence should be indented as a separate paragraph.

Examples:

It has been emphasised (1, p.12-14) that carers of diabetes sufferers 'require perseverance and an understanding of humanity'.

A UK report (4) summarised the importance of mathematics to society and the knowledge economy, stating that:

> 'Mathematics provides a powerful universal language and intellectual toolkit for abstraction, generalization and synthesis. It is the language of science and technology. It enables us to prove the nature of the universe and to develop new technologies that have helped us control and master our environment and change societal expectations and standards of living.'

13.1.3 Reference List

At the end of the document the full list of references should follow the Vancouver style in numerical order as they appear in the text. If you use the same source at different places the same number is used throughout.

13.1.3.1 Book

Model:
Surname Initials, editor statement if needed. Title. Edition statement if needed. Place: Publisher; Year of Publication. Pages.

Example:
Brown J, Noble LM, Papageorgiou A, Kidd J, editors. Clinical communication in medicine. Chichester: John Wiley & Sons Inc.; 2016. 288 p.

13.1.3.2 eBook

Model:
Surname Initials, editor statement if needed. Title [Internet] or [ebook] or [online]. Edition statement if needed. Place: Publisher; Year [cited YYYY Mon DD]. Pages if published in page number format. Available from: doi or URL

13.1.3.2.1   Book published with page numbers – replication of the print edition:

Brown J, Noble LM, Papageorgiou A, Kidd J, editors. Clinical communication in medicine. [ebook]. Chichester: John Wiley & Sons Inc.; 2015 [cited 2025 May 29].Available from: doi:10.1002/9781118728130.

13.1.3.2.2   Book published without page numbers

Hall JE, Hall ME. Guyton and Hall Textbook of Medical Physiology. [Internet]. 14th ed. Philadelphia: Elsevier; 2021 [cited 2025 May 29]. Available from: https://www.clinicalkey.com/student/content/toc/3-s2.0-C20170004883.

13.1.3.3 Journal Articles

Vancouver references use abbreviated journal publication titles, these can be found by searching the National Library of Medicine (NLM) catalogue using the journal title. Enter the title into the search box, the abbreviation to be used will show in the result page:

The New England journal of medicine
Aberman, Arnold; Massachusetts Medical Society.
NLM Title Abbreviation: N Engl J Med
ISSN: 0028-4793 (Print) ; 1533-4406 (Electronic) ; 0028-4793 (Linking)
Boston, Massachusetts Medical Society.
Currently indexed for MEDLINE
NLM ID: 0255562 [Serial]

Where no abbreviation can be found use the full journal publication title.

13.1.3.3.1   Print journal article

Model:
Surname Initials. Article title. Journal title. Year; Volume (issue): page range

Example:
Backman G, Hunt P, Khosla R, Jaramillo-Strouss C, Fikre BM, Rumble C, et al. Health systems and the right to health: an assessment of 194 countries. Lancet. 2008;372(9655):2047-85.

13.1.3.3.2   Online journal article

Journal articles online may have a URL, or a URL and doi. Where both are available supply the doi rather than the URL.

Model:
Surname Initials. Article title. Journal title [Internet]. Year [cited YYYY MMM DD]; Volume (issue): page range. Available from: doi or URL

Examples:
Boyd C, Auth RD, Blundin M, Banerjee D. Updates on the Management of Cystic Fibrosis: Development of Modulators and Advancement of Antibiotic Therapies. Rhode Island Medical Journal [Internet]. 2021 [cited 2025 Jun 02]; 104(7):20-5. Available from: https://www.ncbi.nlm.nih.gov/pubmed/34437661.

Uberoi A, McCready-Vangi A, Grice EA. The wound microbiota: microbial mechanisms of impaired wound healing and infection. Nat Rev Microbiol [Internet]. 2024 [cited 2025 Jun 02]. Available from: doi:10.1038/s41579-024-01035-z.

13.1.3.4 Published report – print

Where a report author is a division within an organisation the reference includes the parent organisation and the division as author.

Model:
Author surname and initial or organisation. Title of report. Place: Publisher. Date of publication. Number of pages. Report number if applicable.

Example:
Royal College of Physicians of London. Smoking and health: summary of a report of the Royal College of Physicians of London on smoking in relation to cancer of the lung and other diseases. London: Pitman Medical. 1962. 70 p.

13.1.3.5 Published report – online

Where a report author is a division within an organisation the reference includes the parent organisation and the division as author.

Model:
Author surname and initial or organisation. Title of report. Place: Publisher. Date of publication [cited YYYY MMM DD]. Number of pages. Report number if applicable. Available from: URL

Example:
European Centre for Disease Prevention and Control, WHO Regional Office for Europe. HIV/AIDS surveillance in Europe 2021 - 2020 data. Stockholm: European Centre for Disease Prevention and Control; 2021. [cited 2025 Jun 02]. 120 p Available from: https://www.ecdc.europa.eu/en/publications-data/hiv-aids-surveillance-europe-2021-2020-data.

13.1.3.6 Webpage

Model:
Author surname and initial or organisation. Title of webpage [Internet]. Place: Publisher (if available). Date [updated YYYY MMM DD; cited YYYY MMM DD]. Available from: URL

Examples:
Webpage with an individual author:

Corey L. Vaccination and the Delta Variant: Four Steps Forward, Two Steps Back [Internet]. Baltimore: John Hopkins University: Coronavirus Research Center. 2021 [updated 2021 Aug 15; cited 2025 June 02]. Available from:

https://coronavirus.jhu.edu/vaccines/blog/vaccination-and-the-delta-variant-four-steps-forward-two-steps-back.

Webpage with an organisation as author:

British Medical Association. Giving Patients Access to Medical Reports [Internet]. 2024 [updated 2024 Nov 06; cited 2025 Jun 02]. Available from: https://www.bma.org.uk/advice-and-support/ethics/confidentiality-and-health-records/giving-patients-access-to-medical-reports.

13.2 Harvard Method

13.2.1 References in the text

Each reference cited in the text must be listed in the References and vice versa: please check these carefully.

Literature citations in text are as follows.
1. One author – (Jones, 1995) or (Jones 1995; Smith 1996).
2. Two authors – (Jones and Kane, 1994) or (Jones and Kane 1996; Smith, 1996).
3. Three authors - (Jones, Kane, and Brown, 2001) or (Jones, Kane, and Brown, 2001; Smith, 1996).
4. Four or more authors – (Brown *et al.*, 2008) or (Jones *et al.*, 1995a; Jones *et al.,* 1995b).
5. Avoid any additional text within the brackets; this format is necessary for on-line literature searches.
6. Manuscripts *accepted* for publication but not yet published – list in References as [in press]
7. Citations of unpublished work:
   (a) Your own unpublished observations and results submitted for publication should be cited in text only and not in the reference list. Use the format (S.P. Jones, Unpublished)
   (b) Authors should get permission from the source to cite personal communications. This should be included in writing in an appendix of the dissertation.

13.2.2 Quoting from references in the text

Use single quotation marks and indicate the page number. Quotations of more than one sentence should be indented as a separate paragraph.

Examples:
It has been emphasised (Soter, Wassermann, and Austen, 1976, p.42) that carers of diabetes sufferers 'require perseverance and an understanding of humanity'.

A UK report (Department for Education and Skills, 2004, p.11) summarised the importance of mathematics to society and the knowledge economy, stating that:
> 'Mathematics provides a powerful universal language and intellectual toolkit for abstraction, generalization and synthesis. It is the language of science and technology. It enables us to prove the nature of the universe and to develop new

technologies that have helped us control and master our environment and change societal expectations and standards of living.'

13.2.3 Reference List

(1) References are listed in alphabetical order according to the surname and initials of the first author. If more than one reference exists for the same author, arrange in date order. Use a and b for papers published the same year.
(2) Initials should follow all surnames in the list of authors; insert a *full stop and space* after each initial and parenthesis round the date.
(3) Journal titles should not be abbreviated unless they are entered into EndNote this way and should be given in italics.
(4) Use the following style.

13.2.3.1 Book

Model:
Surname, Initial., (editor statement if needed) (Year) *Title.* Edition if needed. Place: Publisher.

Example:
Brown, J., Noble, L. M., Papageorgiou, A. and Kidd, J. (eds.) (2016) *Clinical communication in Medicine.* Chichester: John Wiley & Sons.

13.2.3.2 eBook

Where an **eBook** is identical to the print book, reference in the same way as a print book. (i.e.: where page numbers etc are included in an eBook in exactly the same way as a print book (see example above)
E-book where not identical to a print book (e.g. page number aren't provided).

Model:
Surname, Initial., (editor statement if needed) (Year) *Title*. Edition if needed. Place published: Publisher. Available at: doi or URL (Accessed: DD Month YYYY).

Example:
Hall, J. E. and Hall, M. E. (2021) *Guyton and Hall Textbook of Medical Physiology*. 14th ed. Philadelphia: Elsevier. Available at: https://www.clinicalkey.com/student/content/toc/3-s2.0-C20170004883 (Accessed: 02 June 2025).

13.2.3.3 Journal Article (print)

Model:
Surname, Initial. (Year) 'Article title'. *Journal title,* volume (issue), pp. page range.

Example:
Backman, G., Hunt, P., Khosla, R., Jaramillo-Strouss, C., Fikre, B. M., Rumble, C., Pevalin, D., Paez, D. A., Pineda, M. A., Frisancho, A., Tarco, D., Motlagh, M., Farcasanu, D. and

Vladescu, C. (2008) 'Health systems and the right to health: an assessment of 194 countries', *Lancet,* 372(9655), pp. 2047-85.

13.2.3.4 Journal Article online

Model
Surname, Initial. (year) 'Article title'. *Journal title,* volume (issue), pp. page range where. doi or Available at: URL (Accessed: DD Month YYYY)

Examples:
Boyd, C., Auth, R. D., Blundin, M. and Banerjee, D. (2021) 'Updates on the Management of Cystic Fibrosis: Development of Modulators and Advancement of Antibiotic Therapies', *Rhode Island medical journal*, 104(7), pp. 20-25. Available at: https://www.ncbi.nlm.nih.gov/pubmed/34437661 (Accessed 02 June 2025).

Uberoi, A., McCready-Vangi, A. and Grice, E. A. (2024) 'The wound microbiota: microbial mechanisms of impaired wound healing and infection', *Nat Rev Microbiol*. DOI: 10.1038/s41579-024-01035-z (Accessed 02 June 2025).

13.2.3.5 Published report - print

Model:
Author or organisation (Year) *Title*. Place: Publisher.

Example:
Royal College of Physicians of London (1962) Smoking and health: summary of a report of the Royal College of Physicians of London on smoking in relation to cancer of the lung and other diseases., London: Pitman Medical

13.2.3.6 Published report – online

Model:
Author or organisation (Year) *Title*. Available at: ULR (Accessed DD Month YYYY).

Example:

European Centre for Disease Prevention and Control and WHO Regional Office for Europe (2021) *HIV/AIDS surveillance in Europe 2021 - 2020 data*, Stockholm: European Centre for Disease Prevention and Control. Available at: https://www.ecdc.europa.eu/en/publications-data/hiv-aids-surveillance-europe-2021-2020-data (Accessed: 02 June 2025).

13.2.3.7 Webpage

<u>Model:</u>
Author or Organisation (Year) *Title of webpage.* Available at: URL (Accessed DD Month YYYY).

<u>Example:</u>
Webpage with an individual author:
Corey, L. (2021) *Vaccination and the delta variant: Four steps forward, two steps back*. Available at: https://coronavirus.jhu.edu/vaccines/blog/vaccination-and-the-delta-variant-four-steps-forward-two-steps-back. (Accessed: 02 June 2025).

Webpage with an organisation as author:
British Medical Association (2024) *Giving patients access to medical reports* Available at: https://www.bma.org.uk/advice-and-support/ethics/confidentiality-and-health-records/giving-patients-access-to-medical-reports. (Accessed: 02 June 2025).

13.3 General advice on reports and webpages:

Authors – if named authors are given on the title page use these. If author names are not given on the title page use the name of the organisation. If a subdivision of an institution is named as author (e.g. European Centre for Disease Prevention and Control, the European regional office for the World Health Organisation) but the publication is hosted on the parent organisations website (e.g. The World Health Organization) give the author as the parent organisation.

Webpages – exercise caution when citing webpages, take time to assess the quality of the information, and check the URL in the case of organisations (such as the World Health Organisation) to ensure the information is coming from the organisation you expect and is not a pirated page. Where in doubt go to the organisation's homepage and search for the page you want to cite. Dates for publication are not always given, check at the top and bottom of the page, and look for updated dates as well. Dates accessed are essential for webpage citations as content on webpages can change. Always reference the exact page you are citing rather than a website's homepage.

13.4 Pre-prints

Pre-prints (i.e. manuscripts that have not yet undergone peer review) are often available from academic or journal repositories. Pre-prints can be included in the reference list but must be clearly labelled as pre-prints. Care should be taken on use of pre-prints as these have not yet been through the peer review process and therefore their scientific rigour is unknown. Papers reported at meetings (unless abstracts are formally listed in a journal), or personal communication, should be cited only in the text, not as a formal reference.

Authors should get permission from the source to cite personal communication. This should be included in writing in an appendix of the dissertation.

It is your responsibility to ensure that your references are correct!

14 APPENDIX 1: MD4002 LEARNING CONTRACT FOR PROJECT SUPERVISOR AND STUDENTS 2025

The purpose of this contract is to provide clear guidance on what is expected of the student and the supervisor during the MD4002 module.

Please read this document in advance of the first meeting with your supervisor. Discuss this with your supervisor in your first meeting, raising any queries you may have, so both understand the expectations of student and supervisor in MD4002.

AFTER the first meeting, please fill out the contract (following page) including your supervisor's name and your name, digital signature and date. Then upload it via the task associated with the Introduction to MD4002 element. Your supervisor will then be asked to mark this as 'satisfactory' to indicate their agreement.

Please upload your contract by the end of week 2 at the latest. Any queries please contact MD4002@st-andrews.ac.uk.

Student support and guidance.

The project is a learning process, so the supervisor is there to support and advise the student. It is suggested that the supervisor meet / be in contact with the student on a weekly basis. Supervisors will provide guidance in planning and structuring a dissertation and advice on time management. The supervisor will read drafts and comment on the introduction, materials and methods and results. The discussion should be the student's own work and not be read and commented on by the supervisor.

Structure of the dissertation and plan.

The early sessions should focus on agreeing a research question / hypothesis that the student can investigate. Students might need guidance on this to make sure it isn't too broad and that it is achievable in the time-scale available. The supervisor will also have some idea of whether literature is likely to be available. The students will be responsible for searching the literature as this is part of their learning process. The supervisors are asked not to give out extensive lists of references to the students.

Supervisors should discuss with their student at an early stage and agree between them how the dissertation should be structured. This will allow the discussion element to be assessed and be separate from the other areas where the supervisor will be giving guidance to the student.

The supervisor agrees to meet / be in contact with their student weekly.

The supervisor agrees to comment on a draft of the dissertation but will NOT read the discussion or abstracts.

For research projects only: The supervisor confirms that all necessary Approvals have been secured for this project.

The supervisor agrees to respond to the student in a timely manner.

For lab projects only: The supervisor has completed a risk assessment form with the student, and relevant lab protocols have been completed.

The supervisor agrees to provide timely feedback on the dissertation assessment if requested by the student.

Name of Supervisor: **Click or tap here to enter text.**

The student agrees to meet / be in contact with their supervisor weekly.

The student agrees to define a research question / hypothesis in collaboration with their supervisor.

The student agrees that the discussion and abstracts will be written by them independently.
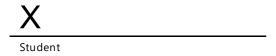
The student agrees to accept that the workload for this module is 5 days per week for 8 weeks.

For lab research projects: the student has attended a H&S talk and will comply with all H&S and lab access policies

Name of Student (print name): **Click or tap here to enter text.**

Date: **Click or tap to enter a date.**

Signature of student: (double click to open and either type or upload image of signature)

X
_____
Student

Please fill in, save a copy and upload the completed document to Galen, there is a task associated with the Introduction to MD4002 element.