

FACULTY OF MEDICINE AND HEALTH SCIENCES

GUIDELINES FOR RESEARCH ASSIGNMENTS OF STRUCTURED MASTER'S PROGRAMMES

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1. INTRODUCTION

The provisions set out in this document tie in directly with two sets of formal provisions governing master's degrees:

- those under "The Degree of Master" in Part 1 (General) of the University Calendar; and
- those given in the Faculty of Medicine and Health Sciences' Calendar (Part 12).

Therefore, please read the brochure **in conjunction with** the two sets of formal provisions. Keep this document handy for **future reference**.

The following objectives apply for such research: "Candidates in all fields of structured master's study are required, as part of the final examination, to complete an assignment or a publication(s) to the confirmed satisfaction of the relevant Postgraduate Programme Committee and the head of the environment (department/division/centre), and in which evidence is provided that the candidate is able to:

- plan research;
- apply the literature study to the research;
- apply principles of relevant health evidence, as well as elementary statistical methods; and / or qualitative analysis, as appropriate
- conclude a project; and
- draw meaningful conclusions."

In order to achieve these objectives, candidates must therefore demonstrate that:

- they have developed an ability for independent critical judgement;
- they are able to discuss both existing and newly acquired knowledge in a rational and objective manner; and
- the research contributes to existing knowledge.

2. FORMAT OF ASSIGNMENT

2.1 The research and preparation of a manuscript/assignment must occur fully or partially within the period of registration for the structured master's programme but may be based on research previously conducted.

2.2 The candidate must furnish the following declaration on the first page of the assignment after the title page, and sign and appropriately date it:

<p>"Declaration</p> <p>I, the undersigned, hereby declare that the work contained in this assignment is my original work and that I have not previously submitted it, in its entirety or in part, at any university for a degree.</p> <p>Signature: Date:....."</p>
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2.3 **The assignment may be submitted in one of the following two formats:**

Option 1: A completed manuscript for a (preferably subsidy-bearing i.e. that appears on the list of the approved scientific journals of the Department of Higher Education and Training) peer-reviewed scientific journal with the candidate as first author, **or**

Option 2: A full-length research assignment.

Option 1 must comply with

- Requirements of the relevant scientific journal, and
- Specific requirements of the relevant degree beyond the word count of the journal, such as a background to the study, an extended literature review, and conclusion.

Option 2 must fulfil the following minimum requirements:

- a **Declaration** of the nature and extent of the contributions of the candidate and of collaborators;
- a **Table of Contents** with accurate page references;
- an **Abstract** in both English and Afrikaans;
- an **Introduction** and overview of the study, preferably not more than one page in length, briefly defining the topic of the research;
- a **Literature Review**, which focuses on the specific, demarcated area, elucidating the topic of the study and which should culminate in a **problem statement, research questions and/or hypothesis**;
- the **Aim of the Investigation**, which arises logically from the literature review and which may serve as the **motivation** for the study;
- a methodology and declaration of the **Method** and **Materials** (experimental animals, patients, students, tissue culture, therapeutics, data collection, analytical and interpretative approaches, interventions, evaluations, ethical considerations, etc.);
- the **Results** or findings after quantitative or qualitative analysis, elucidated by clearly comprehensible tables, diagrams, graphs, etc., with appropriate annotations;
- the **Discussion**, in which the results or findings are succinctly argued and interpreted in the light of the literature review, including a description of any limitations;
- the **Conclusion**, in which the findings, the interpretation thereof, and unresolved issues are concisely summarised. The chapter may close with a set of **recommendations** suggesting new approaches, clinical applications and/or further research projects; and
- the **List of References** in accordance with any acknowledged style.

2.4 Research must be consistent with the following definition:

- 2.3.1 On the basis of clearly formulated problems and through the methodical gathering and systematic processing of data, whether quantitative or qualitative, all efforts must be made to gain insights through which:
- 2.3.1.1 the body of scientific knowledge can be expanded; and/or
 - 2.3.1.2 the application possibilities of theoretical knowledge can be scientifically developed; and/or
 - 2.3.1.3 techniques, systems, processes or methods for practical use can be developed or improved in a scientifically planned and well-grounded way.
- 2.3.2 The research assignment of the master's programme is defined as:
- 2.3.2.1 an independent and cohesive component of activities in a master's programme (it must be a cohesive component of activities in order to obviate the inclusion of any unconnected activities – especially those that cannot be directly linked to the candidate's clearly formulated problem or problems – as part of the research component);
 - 2.3.2.2 research that exists independently from any taught modules in the programme;
 - 2.3.2.3 research that takes place under the guidance of a supervisor;
 - 2.3.2.4 research that comprises 20%–49% of the total credits of the programme; and

- 2.3.2.5 research in which the candidate can be expected to
 - 2.3.2.5.1 gain insights by means of methodical gathering and systematic processing of data and by way of clearly formulated problems, through which basic scientific knowledge can be expanded, application possibilities of exploiting knowledge scientifically or techniques, technology, theory and understanding can be developed or improved scientifically;
 - 2.3.2.5.2 perform autonomously, professionally and ethically while conducting the research;
 - 2.3.2.5.3 communicate the results of the research in an academic or professional way; and
 - 2.3.2.5.4 produce an academically acceptable assignment on the activity.
- 2.3.3 In alignment with the Higher Education Qualifications Subframework (HEQSF of 2013),
 - 2.3.3.1 the written research component for a Masters' programme
 - 2.3.3.1.1 can be offered in various formats (research assignment, mini dissertation, treatise, creative works, or a series of peer-reviewed articles or other research-equivalent outputs),
 - 2.3.3.1.2 should be commensurate with the characteristics of the discipline and field as well as the purpose of the programme,
 - 2.3.3.1.3 should deal with complex issues both systematically and creatively, design and critically appraise research, make sound judgements using data and information at their disposal and communicate their conclusions clearly to specialist and non-specialist audiences, demonstrate self-direction and originality in tackling and solving problems, act autonomously in planning and implementing tasks with a theoretical underpinning and continue to advance their knowledge, understanding and skills,
 - 2.3.3.1.4 and should comprise a minimum of 60 credits at NQF level 9 (HEQSF, 2013:32).
 - 2.3.3.2 Apart from the knowledge, methods and procedures to be demonstrated by Masters' students in performing independent research and the submission of a written component, all students should also demonstrate the ability to :
 - f: "Communicate and defend substantial ideas produced or developed by research in the area of specialisation, using a range of advanced and specialised skills and discourses in the field, discipline or practice, with audiences of varying knowledge and expertise" and e: "Identify and make ethical decisions that affect knowledge production or professional practice and contribute critically to the development of ethical standards" (SAQA level descriptor (e) and (f) on NQF level 9, as defined by the *South African Qualifications Authority (SAQA) Level Descriptors for the National Qualifications Framework, 2012*).

3. EXAMPLES OF TYPES OF RESEARCH

- 3.1 Laboratory-based research relating to the candidate's discipline.
- 3.2 Prospective preclinical or clinical research.
- 3.3 Goal-directed retrospective research, based on information available in data banks or files.
- 3.4 Epidemiological research.

3.5 Health service system research.

3.6 A thorough, critically assessed literature review that has already been accepted for publication in a (preferably subsidy-bearing) peer-reviewed scientific journal with the candidate as first author. This (as with the other options) must still be undertaken in terms of a pre-planned protocol (submitted as such beforehand) that accurately specifies matters such as the aim, methodology and procedure, and the work must make a scientific contribution to the subject area concerned, for instance by being presented in the format of a meta-analysis.

3.7 Qualitative and mixed-methods research.

3.8 Research on instruction/education/teaching.

4. PROCESS

4.1 Each candidate is required to submit the documentation specified below to the head of the environment concerned:

4.1.1. The **protocol** of research not exceeding five double-spaced pages of typescript (unless otherwise stipulated for the relevant degree) and specifying the following:

- the proposed place of research;
- the topic and the scope of the proposed research;
- a concise literature review;
- the aim of the proposed research and/or a statement(s) of the hypothesis(es);
- the materials and methodology;
- the projected results, where possible;
- ethics of the research;
- the budget, available finances and experimental materials; and
- the protocol must be signed off by the head of the environment before submission for ethics approval.

4.1.2 The **complete application** must be submitted to the Health Research Ethics Committee for the evaluation of the ethics and registration of the research project (obtainable from the Research Development and Support Division (Tygerberg Campus)).

Candidates experiencing difficulties with the compilation, format and/or formal organisation of the protocol should approach their supervisor for assistance.

The Stellenbosch University Health Research Ethics Committee (HREC) uses an electronic ethics review management system - *Infonetica*© - to support the application and review process. The online application system can be accessed here:

http://www.sun.ac.za/english/faculty/healthsciences/rdsd/ethics_application_package

4.2 To be considered for the timely completion of the appointment of examiners, candidates must inform their supervisor in writing of their intention to submit their research assignment at least four months before the intended submission date, or earlier as stipulated for the relevant degree. See section 8 below on examiners.

4.3 To be considered for the timely completion of the examination process, electronic copies of the assignment must be submitted by the candidate for examination as follows (master's theses and doctoral theses have other faculty-specific submission dates that are not applicable here):

- with a view to the December graduation ceremony: before 1 October
- with a view to the March graduation ceremony: before 1 December
- The supervisor must give permission for handing in of the assignment for examination

- 4.4 The examiners must have **not less than one month to assess the assignment**. The examiner's reports must be submitted to the head of the environment or the delegate of the executive head, who must submit the examiner reports for recommendation to the Deputy-Registrar (Tygerberg Campus) or their delegate at least 10 working days before the deadline for the submission of final marks. The relevant environment (department/division/centre) is responsible for uploading the final mark before the deadline of the university. Failure to follow these guidelines may jeopardise the awarding of the degree in question to the candidate at the next graduation ceremony.
- 4.5 The candidate is responsible for submitting the final assignment, electronically, to the head of the environment and to the supervisor, no later than the date determined annually by the University for the handing in of final marks.

5. HEAD OF THE ENVIRONMENT

"Head of environment" refers to the relevant head of the relevant division, department or centre that a candidate is registered in for full-time studies in the Faculty of Medicine and Health sciences.

- 5.1 The head of the environment or their delegate (for example, the supervisor) is responsible for the monitoring and further handling of the protocol and for the administrative arrangements necessitated by this function.
- 5.2 The head of the environment is moreover required to familiarise themselves with all the formal provisions and requirements of dealing with the protocol, the research, the submission of the assignment, and its examination.
- 5.3 The approval and appointment of a supervisor is the responsibility of the head of the environment, who has to ensure that the supervisor can cope with the number of students entrusted to them. The onus is on the head of the environment to decide how this requirement is to be met, taking into account the special demands and requirements of the discipline in question, as well as different interests, approaches and capacities of potential supervisors. The supervisor should be an employee (full or joint staff) of Stellenbosch University.
- 5.4 The head of the relevant environment in liaison with the supervisor is responsible for the appointment of examiners, in consultation with the supervisor, and for obtaining their agreement to be appointed. Thereafter they are required to submit the names via their Postgraduate Programme Committee to the Committee for Postgraduate Teaching (CPT) to the Faculty Board (See 6.5 below).
- 5.5 The head of environment in liaison with the supervisor is responsible for the oversight of the examination process, which includes following up on any outstanding examiner reports or for referring examination disputes to the CPT.
- 5.6 The relevant head of environment or his/her delegate is responsible for uploading the final mark before the deadline of the university.

6. SUPERVISOR

Besides being familiar with the information above, the supervisor must acquaint themselves with the contents of the following provisions:

- 6.1 The supervisor must consider their availability when accepting candidates for postgraduate study.

If some subsequent event radically affects their availability, with a concomitant effect upon postgraduate programmes, arrangements must be made with the head of the environment concerned, and every candidate thus affected should be informed accordingly in writing, where after alternative arrangements must be made. Such instances should be reported to the Committee for Postgraduate Teaching (CPT).

- 6.2 In cases where the nature of the topic or research methodology requires expertise in more than one area, consideration must be given to involving a co-supervisor(s) with the appropriate qualifications and experience.
- 6.3 Where deemed appropriate, the supervisor must ensure that the required equipment and the laboratory, digital and technological facilities are available or accessible.
- 6.4 The supervisor assumes responsibility for the originality, scientific merit and standard of the research work that is to be performed.
- 6.5 The supervisor should initiate the appointment of independent examiners, in consultation with the head of the environment and the Postgraduate Programme Committee and should restrict their interaction with the examiners solely to the originality, scientific merit and standard of the research work.
 - A person is independent if they were not involved in the planning, conducting, or realisation of the assignment in any way. An internal independent examiner is a person who is on the university's or joint staff establishment, but who is independent in terms of the abovementioned. An external examiner is a person who is not on the university's staff establishment and who should also be independent. Extraordinary professors, other extraordinary appointments and honorary professors of the university do not qualify as external examiners. External examiners must be unattached to the university and should change regularly, or at least every three years.
- 6.6 The supervisor must further acquaint themselves with all the provisions in respect of the handling of the protocol, the research, the submission of the assignment and the examination thereof.
- 6.7 Feedback on the progress of the study should be given in writing on an annual basis by the supervisor to the Postgraduate Programme Committee of the environment.
- 6.8 All work handed in should be handed back to the candidate with comments by the supervisor within a reasonable time.
- 6.9 In cases of disagreement between the supervisor and the candidate, they should try to resolve it between them. If the matter is not resolved, they may bring it to the attention of the head of the environment and the Postgraduate Programme Committee of the environment. Should the matter still not be resolved, they can approach the Vice-Dean (Learning and Teaching) of the Faculty of Medicine and Health Sciences.

7. CODE OF CONDUCT FOR THE RELATIONSHIP BETWEEN SUPERVISOR, CO-SUPERVISOR AND CANDIDATE

The nature of the relationship between the supervisor and the candidate should be conducive to successful postgraduate studies at the University and is structured by the Memorandum of Understanding (MoU). Each supervisor, co-supervisor and candidate should complete and sign the MoU at the commencement of their relationship.

The Memorandum of Understanding must be compiled for the candidate, in collaboration with the supervisor, within a reasonable period of time after the start of the project (usually not exceeding 60 days). This programme must indicate deadlines, for example, for the submission of a project protocol, the completion of a literary review, the completion of specific chapters and the submission of progress reports. Times of absence (e.g. annual or study leave) must also be noted.

[Link to current MoU to be added here.](#)

8. EXAMINERS

- 8.1 Two independent examiners (see 6.54 above), one of whom should be an external examiner, must be nominated by the head of the environment in consultation with the supervisor and the Programme Committee. Exceptions to the rule must be well supported. **The examiners** must be suitable persons, who are capable of passing an objective judgement.
- 8.2 The head of the environment, in consultation with the Programme Committee, is required to submit the names via the Committee for Postgraduate Teaching to the Faculty Board for approval (See also point 5.4 under “Head of Environment”).
- 8.3 The assignment, together with a copy of the guidelines for assessment and a copy of the standard (pro forma) report form, must be submitted by the head of the environment or their delegate (and not by the supervisor) to the examiners for assessment. The examiners must return the completed standard report form to the head of the environment together with a more detailed report (if considered necessary).
- 8.4 The examiners must be allowed a period of one month for assessing the assignment.
- 8.5 Each examiner must submit both an independent **written assessment** of the assignment and the **standard report** form to the **Head of the relevant Environment**:
 - The independent **written assessment** of the assignment should be drafted taking into account the following criteria in accordance with the relative importance apportioned to each category

CATEGORY	RELATIVE IMPORTANCE (%)
Introduction (incl. abstract, background/ literature review, context, aim, objectives)	20
Methodology (research design incl. experimental methods for laboratory-based analyses, sampling, data collection, data management, data analysis, ethical considerations)	30
Results (presentation, clarity, logical description, understanding of output of statistical analysis for quantitative studies and themes supported by appropriate examples for qualitative studies)	15
Discussion (logical and meaningful interpretation of findings and arguments in light of current knowledge and literature, description of implications of findings, generalisability of findings, strengths and weaknesses of study)	20
Conclusion (summary of key findings, recommendations for further research, “take home” message from study)	5
Other (presentation of references, legibility, spelling, grammar & syntax, overall presentation, relevance, originality)	10

- The **standard report** should reflect the final recommendations. Guidance for mark allocation is provided and examiners are requested to indicate the most appropriate block and the mark for the assignment.

CHARACTERISTICS OF WORK	MARK RANGE	STUDENT MARK (%)
Pass with distinction. Authoritative coverage of relevant material as well as background literature and/or related issues; outstanding presentation in terms of argument, organisation, originality and style. Demonstrates full understanding of subject matter. <u>Only minor typographical corrections required.</u>	≥ 75%	
There is evidence of originality and insight but there are omissions or areas where revisions would clearly improve the work. The substantive area of work is competently covered, well organised and well argued. Corrections to be made to the satisfaction of the supervisor.	70% – 74%	
Solid execution, adequate organisation, competent methodology and conclusions adequately drawn. Minimal originality and insight, if any, but an adequate overall performance from conception to conclusion. Should not require major revisions. Corrections to be made to the satisfaction of the supervisor.	60% – 69%	
Satisfactory review of the literature, adequate clarification of the research aims and objectives, Adequate methodology although much room for improvement. Limitations in the organisation and expression of the study, but the work exhibits the main features sufficiently so as to pass. Major revisions required. Corrections to be made to the satisfaction of the supervisor.	50% – 59%	
Weak dissertation in all respects but candidate has done enough to suggest that it would pass after major revision and re-examination by same examiner. No mark is initially awarded. The resubmitted thesis if passes will be awarded a mark of 50%	45% – 49%	
Fail - The dissertation is so poor that the examiner does not believe the candidate has the ability to make the changes required to pass. No possibility of resubmission	< 45%	

8.6 The marks assigned by the internal independent examiner and those given by the external examiner both contribute 50% to the final mark for the assignment. The calculation of the final mark for the assignment is subject to other relevant regulations in the existing regulations in this document on assignments for master’s degrees.

8.7 A mark is allocated after the first round of examination by the examiners, which will also be regarded as the final mark. In the case where a student is initially failed by both examiners and then undergoes re-examination, the final examination mark awarded cannot be higher than 50.

8.8 In cases where the assignment is passed by one examiner and failed by another examiner (with no possibility of resubmission (<45%)), the Committee for Postgraduate Teaching must appoint two of its members, together with the head of the environment or other senior staff member if the head is the supervisor, as an ad hoc committee.

- This committee will appoint a third examiner who will receive the assignment to mark de novo. This third examiner will be appointed based on input from the head of environment and supervisor.
- The committee will then review the three reports before reporting back.
- If the third examiner passes the assignment, the candidate’s final mark is the average of the

original pass mark and a maximum of 50% for the third examiner, the second examiners mark is disregarded.

- If however the third examiner fails the assignment, the recommendation will be that the candidate fails the assignment and needs to redo the entire assignment.
- The ad hoc committee decision will be communicated to the Head of the Environment who must action the decisions of the committee before reporting back to the Committee for Postgraduate Teaching.

8.9 In cases where both examiners pass the assignment but there is a greater than 20% difference in the mark allocation, this will be flagged by the Head of the Environment.

- If the candidate or supervisor/s want to initiate a dispute, it must be made clear that initiating the dispute process might cause a delay in finalizing the examination and thus completion of the degree; that the candidate cannot withdraw the dispute once the process has been initiated; and that disputing the variation will not necessarily mean that a higher mark will be accepted, as a lower mark might be the outcome at the conclusion of the dispute process.
- In cases where no dispute is initiated, the marks awarded by the two examiners are regarded as the final marks and no further dispute may be declared.
- In cases where a dispute is initiated, the Head of Environment will inform the two examiners that a dispute has been declared due to a large variation in marks. The examiners will be requested to have a collegial mediated discussion (in person or electronically, arranged by the Head of the Environment) to review the reasons for, and try to resolve, the large variation. This may lead to one or both examiners offering to change their mark (either upward or downward as applicable after the discussion) to decrease the variation to below 20%. This will be then regarded as the final mark from the examiner and no further dispute may be declared. If this does not lead to a solution (i.e. where neither examiner is prepared to change their mark), the average will be taken as the final mark.

8.10 The written reports of the additional examiners, together with responding comments (and a revised manuscript if necessary), must be submitted by the head of the environment via the executive head of the department to the Deputy Registrar (Tygerberg Campus) or their delegate for further handling.

9. MANUSCRIPTS FOR SCIENTIFIC JOURNALS

9.1 The candidate must be the first author.

9.2 In instances of option 2 (in 2.2 above), where a completed manuscript has been submitted to a (preferably subsidy-bearing i.e., which appears on the list of approved scientific journals of the Department of Higher Education and Training) peer-reviewed scientific journal, but has not yet been accepted for publication, **external** examination is required. The previous provisions concerning examiners also apply here.

9.3 In instances where the manuscript **has already been accepted for publication** by a (preferably subsidy-bearing i.e., which appears on the list of approved scientific journals of the Department of Education and Training) peer-reviewed scientific journal, assessment by examiners is done only to award a mark (the candidate cannot be deemed to fail the assignment). The manuscript, with proof of acceptance by a subsidy-bearing peer-reviewed scientific journal, must be presented to the head of the environment for final approval and disposal.

9.4 Since the preparation and the submission of a manuscript/assignment forms part of the final process of examination, no publication (for example, a master's thesis) submitted for the award of another degree (for example, MSc) can be presented again in partial fulfilment of the requirements for one of the structured master's programmes.