



## STELLENBOSCH UNIVERSITY FACULTY OF MEDICINE AND HEALTH SCIENCES

### GUIDELINES FOR RESEARCH ASSIGNMENTS OF STRUCTURED MASTER'S PROGRAMMES

#### CONTENTS

|   |    |
|---|----|
| 1. INTRODUCTION .....   | 1  |
| 2. FORMAT OF ASSIGNMENT .....   | 2  |
| 3. EXAMPLES OF TYPES OF RESEARCH .....  | 4  |
| 4. CANDIDATE .....  | 4  |
| 5. HEAD OF THE DIVISION .....   | 6  |
| 6. SUPERVISOR .....   | 6  |
| 7. CODE OF CONDUCT FOR THE RELATIONSHIP BETWEEN SUPERVISOR, CO-SUPERVISOR AND STUDENT ..... | 7  |
| 8. EXAMINERS .....  | 9  |
| 9. MANUSCRIPTS FOR SCIENTIFIC JOURNALS .....  | 10 |
| 10. FORMAT OF ASSIGNMENT .....  | 11 |

#### 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 term "research assignment" is the only officially accepted term for denoting the product of research for a structured master's study.

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 division/centre/department, and in which evidence is provided that the candidate is able to:

- plan research;
- apply the literature study to the research;
- apply elementary statistical principles;
- conclude a project; and
- draw meaningful conclusions.”

In order to achieve these objectives, the candidate 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 candidate must furnish the following declaration on the first page of the assignment after the title page, and sign and appropriately date it:

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| <p><b>“Declaration</b></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><b>Signature:</b> ..... <b>Date:</b> .....”</p> |
|---|

OR

|  |
|--|
| <p><b>“Verklaring</b></p> <p>Ek, die ondergetekende, verklaar hiermee dat die werk in hierdie werkstuk vervat my oorspronklike werk is en dat ek dit nie vantevore in die geheel of gedeeltelik by enige universiteit ter verkryging van ’n graad voorgelê het nie.</p> <p><b>Handtekening:</b> ..... <b>Datum:</b> .....”</p> |
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2.2 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 Education) peer-reviewed scientific journal with the candidate as first author, **or**

**Option 2:** A full-length assignment.

**Option 1** must comply with requirements of the relevant scientific journal, while **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**, 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 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;
- the **Method and Materials** (experimental animals, patients, tissue culture, therapeutics, 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 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.

### 2.3 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, 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 student'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%–25% 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 and technology 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 his research in an academic or professional way; and

2.3.2.5.4 produce an academically acceptable assignment on the activity.

2.3.2.6 “Research assignment” further implies that part of the master’s programme where the outcome is such that it fulfils the “level descriptors” of level 9 (PG3) of the draft New Academic Policy, specifically requirements f: “an ability to present effectively and communicate the results of research to specialist and non-specialist audiences using the resources of an academic/professional discourse; the production of a dissertation or research report which meets the standards of scholarly/professional writing” and g: “a capacity to manage learning tasks autonomously, professionally and ethically.”

### 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 research.

3.8 Research on instruction/education/teaching.

### 4. CANDIDATE

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

The **protocol** of research not exceeding five A4 double-spaced pages of typescript 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 department or division before submission for ethics approval.
- 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**

- 4.2 **NB: ALL** research projects for master's assignments **MUST** receive ethical approval from the Health Research Ethics Committee **BEFORE** the project may begin. The Health Research Ethics Committee handles all "low-risk" projects according to a fast track procedure. The candidate must submit all the necessary application documents to the secretary of the Health Research Ethics Committee, with a letter signed by the candidate's supervisor and head of the division to declare that the research is being conducted for the purpose of obtaining a degree and that the fast track procedure is requested. The chairperson of the Health Research Ethics Committee may provisionally approve the project, after which the project may commence. The Health Research Ethics Committee must, however, review the provisional approval at its subsequent meeting. The Health Research Ethics Committee may ratify or set aside the provisional approval, in which case the project may be halted, until such time that the ethical problem has been satisfactorily resolved.
- 4.3 To be considered for the timely completion of the appointment of examiners, the candidate must inform his study leader in writing of his intention to submit his assignment at least four months before the intended submission date. See section 8 below
- 4.4 To be considered for the timely completion of the examination process, two 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
  - with a view to the fulfilment of the requirements for the degree in June: before 1 April
  - The supervisor must give permission for handing in of the assignment for examination
- 4.5 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 division, who must submit the reports of the examiners for recommendation by the executive head of the department, who must submit these reports 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 Division/Department 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.
- 4.6 The candidate is responsible for the costs of duplication of the assignment.
- 4.7 The candidate is responsible for submitting two copies of the final assignment, one to the head of the division and the other to the supervisor, no later than the date determined annually by the University for the handing in of final marks in June or November

## **5. HEAD OF THE DIVISION**

- 5.1 The head of the division 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 division 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 are the responsibilities of the head of the division, 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 division 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 division 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 Division 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 Division/Department is responsible for uploading the final mark before the deadline of the university

## **6. SUPERVISOR**

Besides being familiar with the information above, the supervisor has to 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 division concerned, and every student 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, computer and library 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 take the initiative for the appointment of examiners by the head of the division, in consultation with the Programme Committee (A person is independent if they were not involved in the 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 and honorary professors of the university do not qualify as external examiners.); and should restrict their interaction with the examiners solely to the originality, scientific merit and standard of the research work.
- 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 division.
- 6.8 All work handed in should be handed back to the candidate with comments by the supervisor within a reasonable time.
- 6.9 Both the supervisor and the student can approach the Vice-Dean (Learning and Teaching) of the Faculty of Medicine and Health Sciences should disagreement between the supervisor and student arise for whatever reason. Should the Vice-Dean (Learning and Teaching) not be able to solve the problem, the matter can be directed to the Committee for Postgraduate Teaching.

## **7. CODE OF CONDUCT FOR THE RELATIONSHIP BETWEEN SUPERVISOR, CO-SUPERVISOR AND STUDENT**

The following set of guidelines is proposed as a code of conduct for ensuring that the nature of the relationship between the supervisor and the student is conducive to successful postgraduate studies at the University:

- 7.1 The candidate (with the necessary input from the supervisor) undertakes to remain up to date with regard to the infrastructure and related rules of the specific division.
- 7.2 The University undertakes not to select a student for a specific project unless the faculty gives prior written confirmation that the project can be undertaken. Responsibility for the required funding and applicable infrastructure will be specified.
- 7.3 The candidate, with the help of the supervisor, will acquaint themselves with the guidelines for keeping a record of research according to what is generally acceptable within the relevant division.
- 7.4 The candidate must confirm that they have the necessary computer skills or the appropriate support to complete the project satisfactorily.
- 7.5 The necessary preparatory study as required by the University should be completed within an agreed period of time.
- 7.6 A work programme 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.

7.7 Regular and predetermined contact sessions between the candidate and the supervisor during the academic year must be arranged.

7.8 When the project nears completion, the candidate must make the necessary submissions according to the specific requirements for graduation within the specific discipline. (Specific reference is made to point 4.4 on page 5-6, to ensure that there is sufficient time for the rounding off and examining of the assignment, taking into account the different graduation ceremonies in December and March of each year.)

7.9 The candidate undertakes, as agreed upon with the supervisor, to deliver the relevant outputs (e.g. publications, patents, academic papers). The candidate must acquaint himself with the conventions regarding authorship that are relevant to the specific division. Should the candidate not complete the task within the time agreed upon, the university reserves the right to appoint a writer to prepare the project for publication – in such a way so as not to disadvantage the copyright of the candidate.

7.10 The candidate may not have any direct contact with examiners before or during the examination process, except in the case of an oral examination.

7.11 Where applicable, the candidate and the supervisor must acquaint themselves with the regulations applicable to intellectual property within the relevant environment.

**7.12 If a co-supervisor is also involved, the following guidelines for the relationship between the co-supervisor and the student apply:**

7.12.1 The co-supervisor should be appointed in time so as to be involved in the development of the protocol. A co-supervisor may be appointed at a later stage if the current co-supervisor needs to be replaced due to unforeseen circumstances.

7.12.2 The co-supervisor should comply with the memorandum of agreement as compiled by the Faculty of Medicine and Health Sciences and also with the guidelines regarding the methodology of the research process.

7.12.3 The co-supervisor should be directly involved in the planning and supervision of the research project. The comments of a co-supervisor are not limited to content and/or methodology, but it is expected of them to provide general comments on the progress of the research project.

7.12.4 The co-supervisor should at any time be able to deputise for the supervisor.

7.12.5 Both the co-supervisor and the student can approach the Vice-Dean (Learning and Teaching) of the Faculty of Medicine and Health Sciences should disagreement between the co-supervisor/student and the supervisor arise for whatever reason. Should the Vice-Dean (Learning and Teaching) not be able to solve the problem, the matter can be directed to the Committee for Postgraduate Teaching.

**7.13 Responsibilities of the supervisor:**

- To be acquainted with procedures and regulations;
- To establish a stimulating research environment;
- To establish a relationship between the supervisor and the student;
- To advise on the choice of project, planning, protocol and ethical principles;
- To discuss issues related to intellectual property and publishing;

- To provide training in research;
- To consult with the student, continuously monitor progress and provide structured feedback;
- To remain aware of the student's situation and needs;
- To arrange for study guidance during periods of absence;
- To advise the student in respect of funding and bursaries;

#### **7.14 Responsibilities of the student:**

- To be familiar with the university's regulations regarding postgraduate study and to comply with such regulations;
- To undertake research with commitment;
- To develop initiative and independence;
- To keep thorough records of all research findings;
- To establish a relationship with the supervisor;
- To obtain feedback by means of reports and seminars and to apply such feedback;
- To do a literature review and remain aware of new relevant information;
- To benefit from the research environment;
- To inform the supervisor of non-academic problems;
- To prepare and write the assignment;
- To prepare and write publications, patents and reports;
- To know the faculty-specific closing dates for the submission of assignments for examination; and
- To have no direct contact with examiners before or during the examination process, except for the purpose of an oral examination.

## **8. EXAMINERS**

8.1 Two independent examiners (in other words, who have not been involved in the planning and conducting the study), one of whom should be an external examiner, must be nominated by the head of the division 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 division, 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 Division").

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 division (and not the supervisor) to the examiners for assessment. The examiners must return the completed standard report form to the head of the division 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 The report from examiners must cover at least the following aspects:

- adequate demarcation and conceptualisation of the field of research and of the research topic;
- adequate command of the relevant research methodology;
- adequate command of the relevant literature;
- clear, systematic and logical presentation of the material;
- proper documentation and substantiation of the results of the research;

- acceptable linguistic and stylistic editing; and
  - the question whether the assignment makes an original contribution to knowledge in the subject area concerned.
- 8.6 The examiners are required to submit their recommendations to the head of the division in the following format:
- acceptance recommended without amendments; or
  - acceptance recommended with proposed amendments to the satisfaction of the supervisor or examiners (indicate appropriate block); or
  - acceptance not recommended and must be re-submitted and re-examined.
- 8.7 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.
- 8.8 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.
- 8.9 In cases where the assignment is not recommended by one or more of the examiners, the Committee for Postgraduate Teaching must appoint, two of its members as an ad hoc committee. This committee should appoint an additional two examiners to review the reports of the original examiners and to report back. After the ad hoc committee has dealt with the new reports, the supervisor must carry out the decisions of the ad hoc committee before reporting back to the Committee for Postgraduate Teaching.
- 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 division via the executive head of the department to the Deputy-Registrar (Tygerberg Campus) or their delegate for further handling.

## 9. MANUSCRIPTS FOR SCIENTIFIC JOURNALS

With the proviso that the candidate must be the first author

- 9.1 In instances 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.)
- 9.2 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 in order 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 division for final approval and disposal.

## **10. FORMAT OF ASSIGNMENT**

10.1 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.

10.2 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.

(FB: 23/07/2019)