

Guidelines for SCM Theses

Introduction

In addition to fulfilling the written examination requirements for certification as a SABSA Chartered Master (SCM), each candidate must submit a 10,000 – 25,000 word thesis based upon original work performed by the candidate using the SABSA framework. Guidelines on the type of ‘work’ that is acceptable are contained in the later section entitled ‘Experience’.

A thesis submitted for a SCM qualification should contain the results of a piece of independent work which might reasonably be expected of a diligent and competent candidate after not less than 3 months study. It is distinguished by the relevance of the arguments or creative work to the SABSA Community, the quality of the evidence collected or the design or performance principles deployed and the light the thesis sheds on current concerns and interests.

A Master’s thesis must demonstrate the candidate’s ability to:

- Master theoretically sophisticated subject matter;
- Identify and evaluate critically the findings and discussions in scholarly literature and other forms of information, including the formal SABSA literature;
- Design a well-structured, relevant, and integrated plan of applied research or methodology application;
- Carry out the research or methodology application using appropriate methods of investigation, analysis, synthesis and evaluation;
- Analyse, argue and reach conclusions which are informed by independent enquiry and other available information;
- Engage in rigorous intellectual analysis, criticism, and problem solving.

Originality and Joint Work

Material included in a thesis submitted by a candidate for a SABSA Chartered Masters (SCM) qualification must be the original work of the specific candidate. If a candidate has been working with others on the qualifying project, the thesis submission must indicate which parts comprise the independent contribution of the candidate.

Publication of Work and Respect of Copyright

Candidates may submit work that they intend to publish or have already published, but in many cases the work will form part of a professional deliverable for an employer or a consulting client, both of which must be regarded as the owner and copyright holder of the work. The candidate must obtain permission from the owner of the work for it to be submitted as part of the SCM thesis and according to the requirements of the owner may need to sanitise the work to remove any identification of the owner or related parties. It is the responsibility of the candidate to ensure that this requirement is met.

The SABSA Institute will not automatically publish SCM theses, but will provide facilities for publication through its web site of any thesis that the candidate wishes to be so published. In order to establish the right of the candidate to publish such work, The SABSA Institute will require the candidate to supply either a signed statement confirming that they own the copyright or a letter from a third party who owns the copyright confirming their permission for publication.

The SABSA Institute will not claim any copyright in a submitted thesis.

Size and Format of Thesis Submissions

As a guideline candidates should aim to submit a thesis of at least 10,000 words of text, excluding footnotes, appendices and bibliographies, but under no circumstances should the thesis exceed 25,000 words. However, submissions may vary considerably in their texture. Some will be essentially text-based, whilst others may be highly diagrammatic, and yet others may be highly tabular in structure, or some appropriate mix of these textures. The document submitted may also be in the form of a slide presentation, although in this case the candidate must ensure that sufficient detail is included for the examiners to be able to judge both the scope and the quality of the work, and usually some supporting notes or tables will be required. If in doubt the candidate should discuss the matter with the supervisor.

There are no rules governing the physical formatting of pages, although clarity of presentation will be a factor that will influence the examiners. All external references to other work (i.e. not the original work of the candidate) must be clearly stated and appropriate accreditation given to the sources. Here again there are no hard rules about the format of references, which may be presented as footnotes, as endnotes to chapters or in a separate section, but each reference should make clear the date and the authority being quoted. In the case of sanitised documents some skill may be needed to ensure that the source is authoritative without disclosing its details.

All theses must be submitted in electronic format using either Microsoft Office tools (MS Word, MS Powerpoint, MS Access or MS Excel) or as Adobe PDF documents. The preferred method is for the candidate to convert all documents into Adobe PDF. However, in a slide presentation the use of animation or slide building may make this impossible, and in the case of spreadsheets or databases this will also not be possible. If a candidate has any doubts about presentation or formatting they should discuss the matter with their supervisor.

Supervision

Each candidate will be assigned to a supervisor. Supervisors will themselves be a SABSA Chartered Master and will be selected for their familiarity with the candidate's specific areas of expertise. The supervisor will provide support to the candidate in a number of ways, including but not necessarily restricted to:

- Assisting with choosing a topic area;
- Assisting with defining the scope;
- Assisting with planning the work;
- Setting delivery targets and milestones;
- Reviewing deliverables;
- Advising upon the submission for assessment.

Language

All theses must be submitted in English language. However, there is flexibility regarding the spelling differences that occur between English language dictionaries across various English-speaking nations (such as the differences between US and UK dictionaries).

Whilst submission of a thesis is not a language test, articulacy of expression of ideas is a necessary quality for a SABSA Chartered Master and all candidates should make every effort to ensure that the spelling and grammar of their submissions are correct. It is recommended that spelling checkers and grammar checkers should be applied to all theses before submission and candidates should be mindful of the need to demonstrate their communication skills.

Application Process

There will be an application process defined by The SABSA Academy.

Registration

Following a success application by a candidate, registration will follow. The SABSA Academy will define the registration process.

Examination Fees

These are set from time to time by The SABSA Institute Board of Trustees.

Assessment Criteria

Assessment of the thesis is utilizes assessment criteria based on Bloom's Taxonomy of Cognitive Levels to determine whether the candidate has demonstrated mastery of the SABSA Framework through all six levels of competency. The six levels of competency are:

#	Competency Level	Skill Demonstrated	Task Examples
1.	Knowledge	<ul style="list-style-type: none"> • Observation and recall of information • Knowledge of facts • Knowledge of major ideas • Mastery of subject matter • Carry out research to find information 	List, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, find, identify
2.	Comprehension	<ul style="list-style-type: none"> • Understand information • Grasp meaning • Translate knowledge into new context • Interpret facts, compare, contrast • Order, group, infer causes • Predict consequences 	Summarise, explain, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend
3.	Application	<ul style="list-style-type: none"> • Use information • Use methods, concepts, theories in new situations • Solve problems using required skills or knowledge 	Apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover
4.	Analysis	<ul style="list-style-type: none"> • Seeing patterns • Organisation of parts • Recognition of hidden meanings • Identification of components 	Analyse, separate, order, connect, classify, arrange, divide, compare, select, infer
5.	Synthesis	<ul style="list-style-type: none"> • Use old ideas to create new ones • Generalise from given facts • Relate knowledge from several areas 	Combine, integrate, modify, rearrange, substitute, plan, create, build, design, invent, compose, formulate, prepare,

		<ul style="list-style-type: none"> • Predict, draw conclusions 	generalise, rewrite
6.	Evaluation	<ul style="list-style-type: none"> • Compare and discriminate between ideas • Assess value of theories, presentations • Make choices based on reasoned argument • Verify value of evidence • Recognise subjectivity 	Assess, evaluate, decide, rank, grade, test, measure, recommend, convince, select, judge, discriminate, support, conclude

These competency levels are evaluated in the context of the following six knowledge domains:

1. **Assets: Business Decisions** – Demonstrate understanding of the organisation’s business drivers, critical success factors, business strategies, business objectives, and the business decisions based upon these, and how these relate to the Enterprise Security Architecture.
2. **Motivation: Business Risk** – Demonstrate understanding of how business risks, both opportunities and threats, drive business decision making and how this relates to Enterprise Security Architecture.
3. **Process: Business Process** – Demonstrate understanding of how the key business processes are related to business decision making and risk taking and how this related to Enterprise Security Architecture.
4. **People: Business Governance** – Demonstrate understanding of how business organisations are governed, the roles and responsibilities required for governance and how this relates to Enterprise Security Architecture.
5. **Location: Business Geography** – Demonstrate understanding of how geographical factors drive business decision making and how this relates to Enterprise Security Architecture..
6. **Time: Business Time Dependence** – Demonstrate understanding of the temporal factors affecting business decision making and specifically the performance of business against time dependent business targets and how this relates to Enterprise Security Architecture.

The following matrix combined these two dimensions of competency levels and knowledge domains to provide a set of evaluation parameters that the assessor will use in evaluating the thesis.

	Assets	Motivation	Process	People	Location	Time
Knowledge	Thesis must address at least 5 of the 6 domains, demonstrating knowledge of core knowledge elements from each domain across at least 2 layers of the SABSA matrix.					
Comprehension	Thesis must demonstrate understanding of at least 5 of the 6 domains, demonstrating ability to interpret the subject matter in the context of the core knowledge elements from each domain, across at least 2 layers of the SABSA matrix.					
Application	Thesis must apply SABSA at least 3 modeling techniques from at least 2 layers of the SABSA matrix to the subject matter. These needs to demonstrate an understanding of the business requirements and needs.					
Analysis	Thesis must analyze and provide subject matter specific interpretations and recommendations based on at least 3 modeling techniques from at least 2 layers of the SABSA matrix. The thesis should demonstrate mediation of different view points and recommendations based on the analysis.					
Synthesis	Thesis must establish linkages between at least 5 of the knowledge domains to define a comprehensive and holistic view of the subject matter across these domains. These linkages need to extend across at least 2 layers of the SABSA matrix.					
Evaluation	Thesis must demonstrate a novel application of the SABSA Framework, or an extension/ innovation to the SABSA Framework and associated body of knowledge. This could be refinement of existing SABSA methods beyond what has been published, application of methods to new types of problems, or the development of new methods that improve upon or extend the current framework.					

Experience

The applicant must demonstrate at least 5 years of security practitioner experience and 3 years of security architecture experience. Of this experience, the applicant must demonstrate the application of the SABSA framework to at least three separate projects or deliverables.

Eligible security architecture experience includes (but may not be limited to):

- Development of enterprise security architecture for an organization or an organizational unit.
- Development of solution-based security architecture to address a specific business requirement.
- Leading a team tasked with development of security architectures.
- Development of core security architectural models to address a business need.
- Development of business cases to support enterprise security architecture and strategies.
- Providing quality assurance on security architecture deliverables.
- Teaching architectural methods and techniques.
- Research into and synthesis of new architectural methods, models, frameworks etc.

Notification Process

Candidates will be notified initially by email of the result of their assessment. A formal letter and certificate will follow by normal postal service.

Submission of Experience Record

The applicant's record of experience must be submitted in a curriculum vitae format showing work history, project experience, teaching experience, and publications, including a brief description and duration for each item. In addition, a cover letter must be provided summarizing the relevant experience of the applicant to address the experience eligibility requirements, defined above.

Award of SCM

The award of the SCM will be based upon the following three components:

- The SABSA Institute exam record for the candidate;
- The candidate's examined thesis;
- The candidate's SABSA experience record.

Thesis Mark and Grade

The examiner is asked to award a mark and grade on the basis of the thesis as submitted. A mark and grade should be awarded irrespective of the particular option recommended by the examiner (for example, if option (d) is recommended, a mark and grade must also be awarded).

A: 80-100

B: 65-79

C: 50-64

D: below 50 FAIL

Thesis Examination

The thesis is assessed by a SABSA Masters qualified examiner from the academic environment, with peer review of the results by an independent examiner. Both examiners will be assigned by The SABSA Institute.

Where there is no significant difference in marks between examiners, the final mark for the thesis is normally the average of the marks recommended by the two examiners.

Where there is a significant difference in marks between examiners, the examiners are asked to consult in order to arrive at a final mark. Differences are considered to be significant where the marks differ by 10% or more or marks cross a grade boundary.

Where examiners have recommended that the thesis be revised and resubmitted, the same examiners are requested to re-examine the thesis. A specific date will be set for the resubmission of the revised thesis (normally not more than one month from when the candidate is advised of the result).

Examiners Report

The primary examiner is asked to provide a written report on his/her assessment of the thesis as well as a recommendation, including a mark and a grade, using the form with the following layout:

Candidate name:

Title of Masters Thesis:

Recommendation (tick one):

- (a) The thesis be accepted without amendments
- (b) The thesis should be accepted subject to amendments as indicated being made at the discretion, and to the satisfaction, of the SABSA Institute
- (c) The thesis does not meet the criteria for the award of the degree (ie it fails) but may be reviewed as indicated and resubmitted for examination
- (d) The thesis does not meet the criteria for the award of the degree (ie it fails) and should be rejected without right of resubmission.

Mark Awarded: _____ Grade Awarded: _____

Name of Examiner: _____

Signature of Examiner: _____

Independent Review

Mark/Grade Agreed

or

Reviewed Mark Awarded: _____

Reviewed Grade Awarded: _____

Name of Reviewing Examiner: _____

Signature of Reviewing Examiner: _____