



MMed research resources & support at Stellenbosch University

2022 edition

Dr Karis Moxley

Head: Registrar Research Support Office
Faculty of Medicine and Health Sciences

[Getting started with MMed research](#)

[Resources and support services](#)

MMed research processes and procedures

[Overview of the MMed research process](#)

[Generic research supervision procedure](#)

[Generic examination procedure](#)

Important clinical research concepts

[Clinical research questions and study designs](#)

[Frameworks for developing a research question](#)

[Registrar research training opportunities 2022](#)

[Registrar Research Webinar Series](#)

[Clinical Research Protocol Writing Course](#)

[Clinical Research Manuscript Writing Course](#)

Podcasts for self-study

[Registrar Research Webinar Series 2021](#)

[MMed Assignment Bootcamp 2020](#)

[Acknowledgements](#)

Getting started with MMed research



**Faculty of
Medicine & Health Sciences**



Dear Registrar,

In 2010, the HPCSA defined new requirements for specialist registration, which included the need for registrars to demonstrate research competence by completing a Master of Medicine (MMed) research project.

Doing research requires that you develop a research question, design a project and execute it, and write-up (and hopefully publish) a research assignment. As a postgraduate student, you are expected to create your own work structure, find, and manage resources, and consult regularly with your research supervisor(s).

Stakeholders within the Faculty of Medicine and Health Sciences (FMHS) at Stellenbosch University are aware of the challenges associated with MMed research. In particular, we acknowledge that it can be difficult to balance research time with clinical training and preparation for College exams. In response to these challenges, the FMHS created the [MMed Unit](#) in 2014 under the leadership of Professor Robert Gie. Following Prof Gie's retirement in 2018, the Unit became the Registrar Research Support Office (RRSO). Now under the leadership of Dr Karis Moxley, the RRSO aims to support the development of research capacity amongst MMed candidates, consultants, and MMed research supervisors.

No matter where you are in the research journey, the RRSO extends a warm welcome to you, and we look forward to supporting your development as researchers. Although your research supervisor(s) will be your primary research support, there are several other support structures within the faculty to help you along the way.

In this quick-start guide you will find a summary of all the research resources and support services available to you in 2022. Please pay careful attention to the Faculty of Medicine and Health Sciences [Guidelines for Research Assignments of Structured Master's Programmes](#), which detail important research requirements and format of the final assignment. Also note that you will need your SUNID (username@sun.ac.za and password) to access the resources in this handbook.

Good luck for your research journey which we hope will be an enriching educational experience.

Dr Karis Moxley

Head: Registrar Research Support Office

Research resources & support services

Registrar Research Support Office (RRSO)



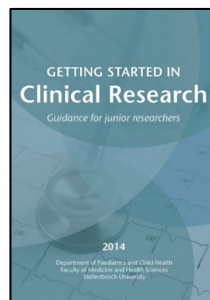
Head: Dr Karis Moxley



karismoxley@sun.ac.za



www.sun.ac.za/RegistrarResearch



*Getting Started in
Clinical Research*

Click [here](#) to
download the
free PDF

The RRSO, located on Level 5 in the Education Building on Tygerberg Campus, is dedicated to providing research support for registrars and their research supervisors. The office also provides a consultation service, as well as the Registrar Research Webinar Series (pages 8-9), Clinical Research Protocol Writing (CRPW) course (page 10), and the Clinical Research Manuscript Writing (CRMW) course (page 11). Information sessions & lectures for individual Divisions or Departments are available by request.

Research Capacity Development and Funding Office (RCFO)



Head: Dr Tania Brodovcky



taniab@sun.ac.za



www.sun.ac.za/RDStraining
www.sun.ac.za/RDSfunding

The RCFO, located on Level 5 in the Education Building on Tygerberg Campus, provides research capacity development workshops, courses, and short information sessions to Faculty of Medicine and Health Sciences staff, clinicians, postdoctoral fellows, and postgraduate students. The office also disseminates and advises on research funding opportunities. Registered staff and students may access [podcasts](#) from previous training initiatives using their SUN credentials.

Health Research Ethics Office



Head: Dr Blanche Pretorius



blanchep@sun.ac.za



www.sun.ac.za/HealthResearchEthics



Enquiries:

Ms Elvira Rohland elr@sun.ac.za

Ms Ashleen Fortuin afortuin@sun.ac.za

The Health Research Ethics Office supports researchers towards compliance in the protection of human participant safety, rights and welfare in health research. Applications to the Health Research Ethics Committee (HREC) must be submitted electronically via [Infonetica](#). HREC submission deadlines are listed [here](#). Important forms and instructions are available [here](#). Click [here](#) to view the HREC Terms of Reference and Standard Operating Procedures, and national and international ethics guidelines. Request a consultation [here](#).

Research resources & support services

Undergraduate Research Office (URO): Dr Debbie Marais (debbiem@sun.ac.za) has curated several valuable resources on the [Roadmap to Research](#). These resources provide a good introduction to the research process for novice researchers.

Centre for Evidence-Based Health (CEBHC): The [CEBHC](#) is located on Level 3 of the Education Building on Tygerberg Campus. To request a free consultation with a biostatistician (strongly encouraged at the protocol stage of research), make an [online booking](#) or contact Liesel Floor (lieselfloor@sun.ac.za). The centre also hosts a monthly [Biostatistics Clinic](#). There is no need to make a booking for this – researchers can drop in for a short consultation.

Writing support provided by the Language Centre: The Writing Lab at the [SU Language Centre](#) offers online writing consultations and several workshops aimed at improving academic writing. Although consultations are free, workshops are for researchers' own cost.

Electronic access to university resources: A valid SUNid is required to access many online resources offered by Stellenbosch University. This consists of a username, such as studentnumber@sun.ac.za or janedoe@sun.ac.za, and the associated password.

IT helpdesk: For problems regarding access to the university websites and other IT-related difficulties, can contact the [Stellenbosch University IT helpdesk](#) between 8:00 and 16:30 on Mondays to Fridays at 021 808 4367 or at help@sun.ac.za.

Access to software: Students and staff at Stellenbosch have free access to several software including Microsoft Office, Adobe Acrobat Professional, SPSS, and Statistica, among others. For access, view the IT Service catalogue [here](#). All software related requests can be logged via email (software@sun.ac.za) or the IT Service Desk on 021 808 4367.

Data management: [REDCap](#) is the preferred data management tool at Stellenbosch University.

Access to the library: Visit the library on Level 3 of the Education Building at Tygerberg Campus and access the library website [here](#). After logging in with a valid SUNID, researchers can access a wide range of electronic databases, e-journals and e-books. Click [here](#) to watch a presentation on how to use the online library. The [Library Guides](#) offer useful information including tips for literature search strategies and writing a literature review. provides useful information for conducting a literature review. For any queries, visit the information desk in person, where the librarian on duty will be able to help.

Reference management: Mendeley is the preferred referencing manager at Stellenbosch University. The library's [Mendeley support page](#) offers useful information, and [this video](#) is a good quick-start guide.

Enhancing Postgraduate Environments: Stellenbosch University has partnered with the [Enhancing Postgraduate Environments](#) website which offers a treasure trove of online research learning materials.

Online health research ethics training: View the [TRREE online ethics training](#) as well as [Good Clinical Practice \(GCP\) training](#) offered by CREDE.

Overview of the MMed research process

Find a supervisor & research topic

- Find a supervisor in a field that interests you (this helps with motivation).
- Brainstorm research ideas or see if your supervisor has a project or data.
- Check the [FMHS Guidelines for Structured Master's Programmes](#).
- Sign up for the [Clinical Research Protocol Writing course](#).

Review the literature

- Do a literature search using on [PubMed](#) or via the [SU libraries website](#).
- Start reading and familiarising yourself with your chosen topic.
- Use [Mendeley](#) to keep track of your literature. View a useful tutorial [here](#).

Develop a research question

- Know your [question type](#) and [develop a clear research question](#).
- Choose an [appropriate study design](#) for your research.
- Consult with a [biostatistician](#) who will make sure your research question and chosen study design are scientifically sound.

Write a literature review

- View a webinar about literature review writing [here](#).
- The Stellenbosch Libraries website also has [great resources](#).

Write a full protocol

- Download a [protocol template](#) for quantitative or qualitative research.
- Complete each section by following the instructions in the template.

Obtain departmental study approval

- This often involves giving a 10-minute Powerpoint presentation to a panel of reviewers, usually the HOD and consultants.
- Check the requirements in your Division or Department

Obtain other study approvals

- View a summary of the [documentation required](#) for an HREC application.
- Obtain study approval from the Department of Health [here](#).
- Apply for permission to recruit SU staff and students [here](#).

Collect and analyse data

- Use [REDCap](#) to generate surveys and manage databases.
- Ask a [biostatistician](#) to guide you through data analyses.

Write up the findings

- Sign up for the [Clinical Research Manuscript Writing course](#).
- Or watch the [2020 MMed Research Assignment Bootcamp](#) recordings.

Submit for examination

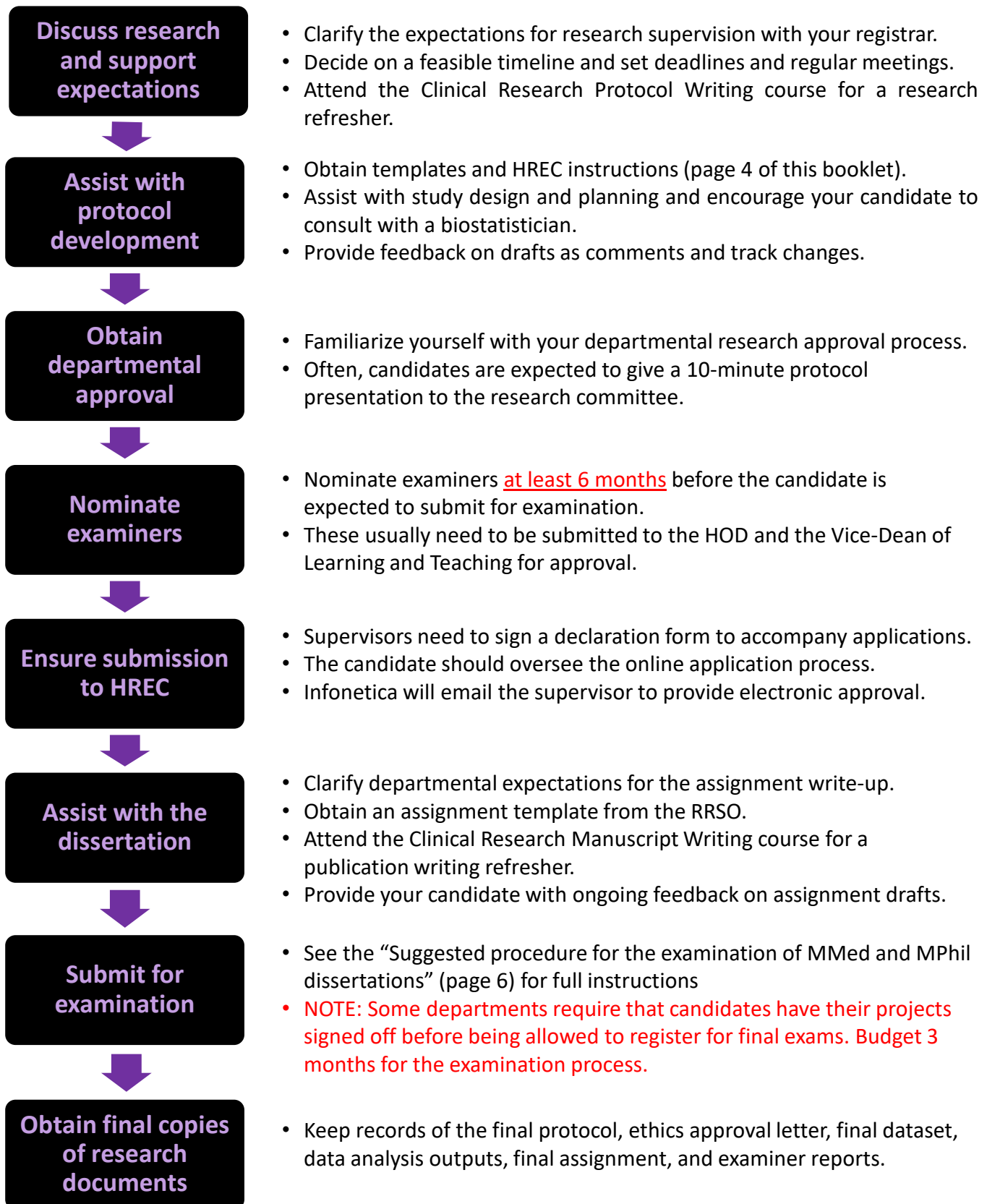
- See an overview of the examination process [here](#).
- **NOTE: Some departments require that candidates have their projects signed off before being allowed to register for final exams. Budget 3 months for the examination process.**
- Respond to examiners using [this template](#).

Publish

- Find a suitable and [accredited journal](#) and follow the “instructions to authors” on the journal’s website and submit online.
- Respond to reviewers using [this template](#).
- **NOTE: It is possible to publish one’s MMed research before examination but keep in mind that the publication process can be lengthy.**

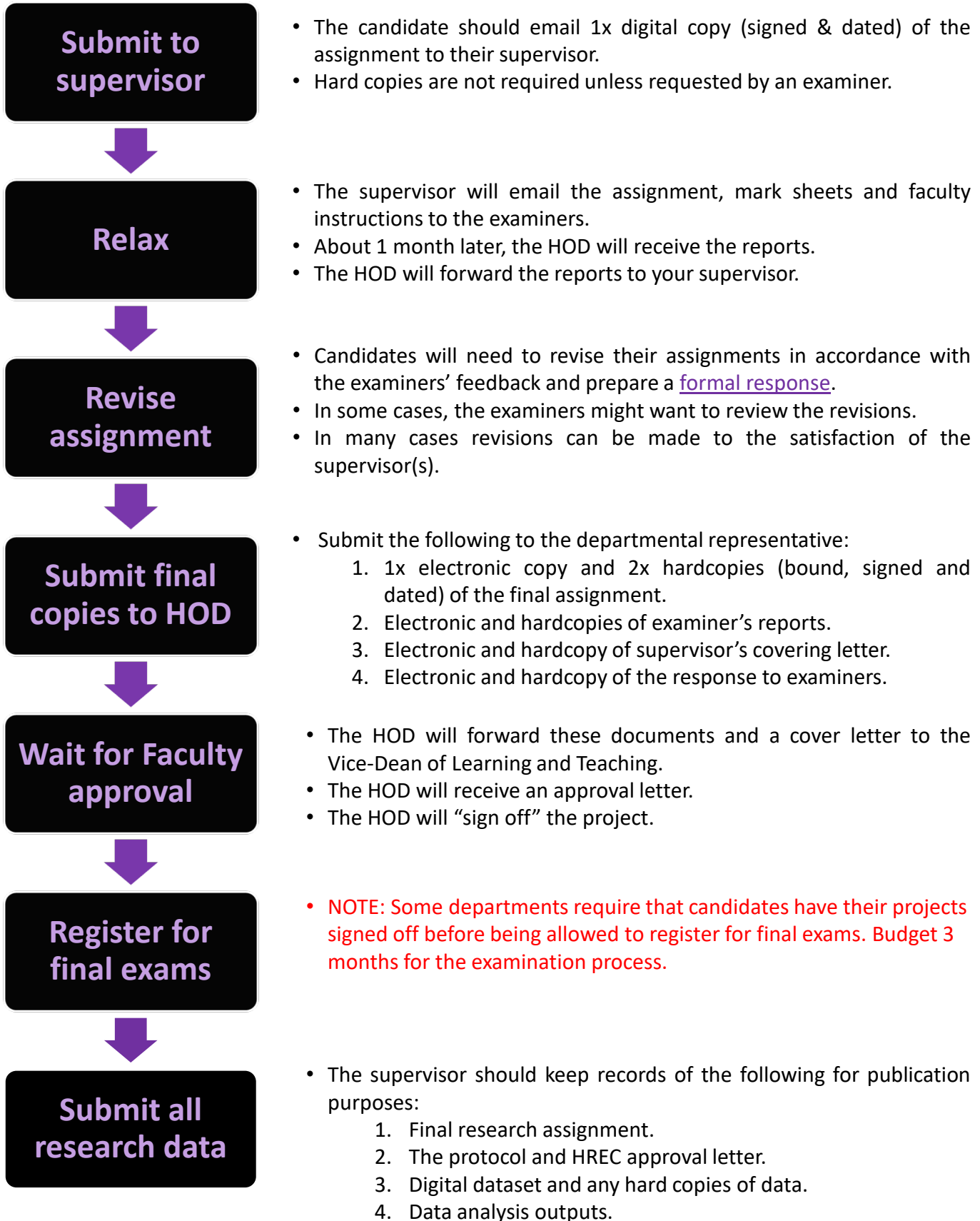
Generic research supervision procedure

The following is a rough guide to the MMed research supervision process. Supervisors and their candidates are encouraged to find out the preferred procedures within their own environments.



Generic research examination procedure

The following is a rough guide to the MMed research examination process. Supervisors and their candidates are encouraged to find out the preferred procedures within their own environments.



Clinical research questions & study designs

The most important starting point for any project is to develop a clear and answerable research question. Next, researchers need identify the most appropriate study design to answer that question. The following table summarises 6 common types of research questions. It also indicates which study design is best suited to answer these different questions. Note that the examples in the table demonstrate the use of the [PICO or SPICE framework](#) for developing a good research question.

Question	Definition	Example	Ideal study design
Descriptive QUANTITATIVE	Asks about the characteristics of a population.	<u>What are the demographic and clinical characteristics</u> (O) of adult patients (P) admitted for lower limb prosthetic rehabilitation (E) at Tygerberg Hospital (S) over 15 years (T)?	Cross-sectional study (descriptive)
Prevalence QUANTITATIVE	Asks about the current number of cases of a certain condition.	<u>What is the prevalence</u> (O) of gender-based violence and revictimisation (E) among women (P) attending antenatal clinics in Soweto, South Africa (S)?	Cross-sectional study (descriptive)
Effectiveness of an intervention QUANTITATIVE	Asks which treatment or intervention leads to the best outcome	In adult patients with systemic lupus erythematosus (P), is consuming turmeric tea (I) <u>more effective than</u> Plaquenil (C) at reducing joint pain (O) after 5 weeks (T)?	Randomised controlled trial (RCT)
Diagnosis / diagnostic test accuracy QUANTITATIVE	Asks about the accuracy of a new test compared to the current method of testing (gold standard).	For adult patients (P), is d-dimer assay (I) <u>more accurate compared to</u> ultrasound (C) in ruling out deep vein thrombosis (O) ?	Cross-sectional study (analytical)
Aetiology / prognostic QUANTITATIVE	Asks about the cause of or risk factors for a disease or condition.	Are female non-smokers (P) with daily exposure to second-hand smoke (I) <u>more likely to</u> develop breast cancer (O) <u>when compared with</u> female non-smokers without daily exposure to second-hand smoke (C) over a period of ten years or greater (T)?	Cohort or case-control study
Meaning QUALITATIVE	Asks about people's views, experiences and values.	<u>How</u> do South African (S) medical students (P) experience (E) their first encounter with a cadaver (I)?	Qualitative study

Frameworks for developing a research question

The importance of developing a good research question

1. The research question influences every aspect of the research process, including the study design, population of interest, data collection and analysis, ethical considerations, budget, and timeline.
2. The quality of the research question will determine the overall quality of the research. It is almost always impossible to rescue a poorly conceptualised project during the later stages of the research process.

Once you have an idea about what [type of research question](#) you're asking, the next step is to write a clear and answerable research question. We recommend the use of the PICO(TS) or PECO(TS) or SPICE frameworks to guide the development of research questions.

The PICO(TS) or PECO(TS) framework for developing a **QUANTITATIVE** research question:

Framework item	Think about	Example
P Population, Patient or Problem	What are the characteristics of the population or patients? Or what is the problem of interest?	Patients 65 years and older
I/E Intervention or Exposure	What type of intervention is being considered? Or what is the exposure, event, or environment?	Influenza vaccine
C Comparator or comparison group	Is there a comparison intervention to be considered (compared to the intervention described above)? NOTE: There may not always be a comparison	No influenza vaccine
O Outcome of interest	What is the result or effect of interest?	Development of pneumonia
T Timing	Over what time frame will the study take place? NOTE: This is optional.	One flu season
S Setting or Study design	In what country, province, area, context will the study participants come from? Or what study design will be used? NOTE: This might not always be applicable	Setting: Western Cape Province, South Africa

Good research question: In patients 65 years and older (P), does the use of an influenza vaccine (I) compared to not receiving the vaccine (C) influence the risk of developing pneumonia (O) during the 2022 flu season (T) in the Western Cape (S)?

Frameworks for developing a research question

The SPICE framework for developing a **QUALITATIVE** research question:

Framework item	Think about	Example 1	Example 2
S Setting	Where? In what context?	Hospital wards	Rural communities
P Perspective	Whose view?	Patients with cancer	Pregnant women
I Intervention/ Issue of interest	What are you interested in?	Art therapy	Facility-based care
C Comparison	As compared to?	None	Birth at home
E Evaluation	What outcome? What results?	Perceptions and experiences	Perceptions and experiences

Good research questions:

Example 1: How do cancer patients (P) feel (E) about receiving art therapy (I) when in hospital outpatient departments (S)?

Example 2: In rural communities (S), what are the perceptions and experiences (E) of pregnant women (P) who receive facility-based care (I) compared to women who give birth at home (C)?

Registrar research training opportunities

2022 programme

Registrar Research Webinar Series

Hosted by the Registrar Research Support Office



When and where?



One Tuesday every month
19:30-20:30



Webinars via Zoom

How to register?



Click [here](#) for more information



Enquiries:

Karis Moxley karismoxley@sun.ac.za

Clinical Research Protocol Writing (CRPW) Course

Jointly hosted by the RRSO & Research Capacity Development and Funding Opportunities Office



When and where?



29 Mar – 27 Jul 2022



5 online modules
5 online contact sessions



Click [here](#) for more information



Enquiries:

Karis Moxley karismoxley@sun.ac.za
Tania Brodovcky taniab@sun.ac.za

Clinical Research Manuscript Writing (CRMW) Course

Jointly hosted by the RRSO & Research Capacity Development and Funding Opportunities Office



When and where?



23 Aug – 27 Sep 2022



Webinars via Zoom



Click [here](#) for more information



Enquiries:

Karis Moxley karismoxley@sun.ac.za
Tania Brodovcky taniab@sun.ac.za

Registrar Research Webinar Series

AUDIENCE: Registrars, MOs, consultants, and research supervisors
CONTENT: Key concepts and methods in clinical research
FORMAT: Zoom webinars with opportunity for Q&A and discussion
COST & CPD: Free of charge and eligible for 1 CPD point per session

- 15 February** Features of academic writing
- 15 March** Overview of the MMed research journey
- 12 April** Top tips for developing a research question
- 17 May** **NEW** Overview of research protocols & approvals
- 14 June** Searching for literature & writing a narrative review
- 12 July** Introduction to qualitative research
- 16 August** Overview of the academic publication process
- 13 September** Overview of the MMed research journey (repeat)
- 18 October** Human research ethics & obtaining HREC approval
- 15 November** **NEW** Basic concepts in biostatistics for clinical research

2021
recordings
available [here](#)

When and where?

How to register?



Tuesdays
19:30 – 20:30



RSVP links
Available 1 month in advance
via the RRSO website



Zoom
A link will be emailed to
registered participants



Enquiries: Karis Moxley
karismoxley@sun.ac.za

Clinical Research Protocol Writing Short Course



Save the dates:
29 March – 27 July 2022

From **Research idea** to protocol in <4 months

TARGET AUDIENCE: Registrars, Medical Officers and other novice researchers who are ready to begin or are in the process of drafting a quantitative or qualitative clinical research protocol.

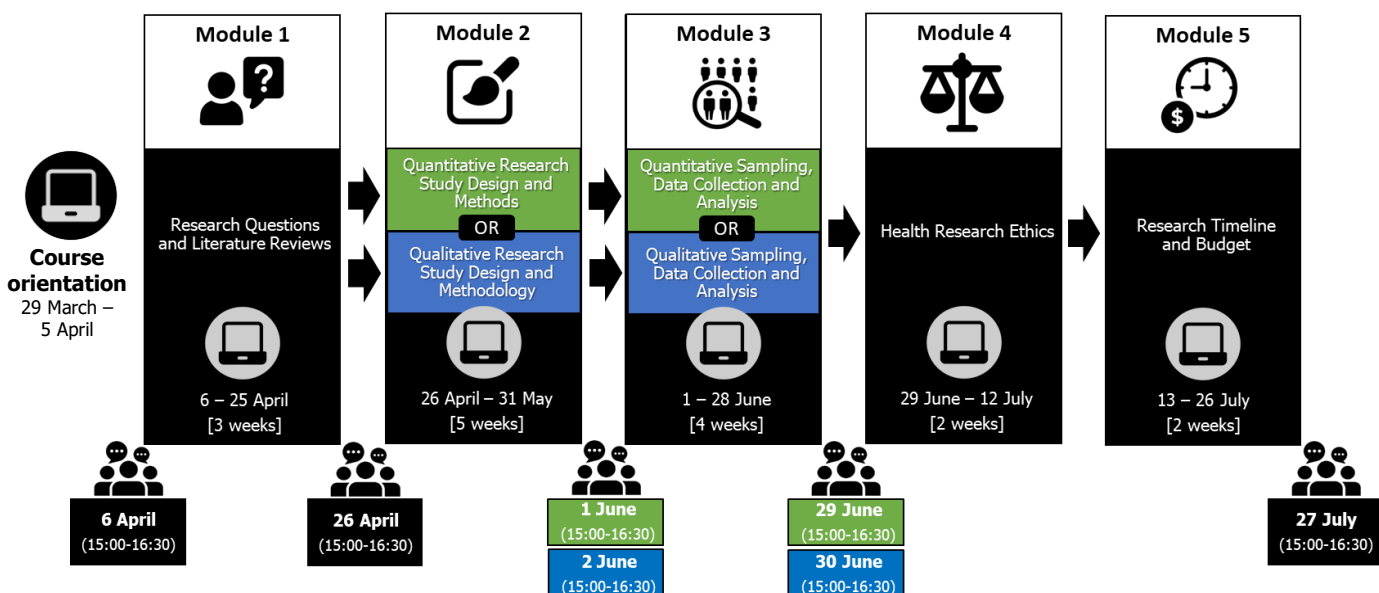
FORMAT: This is a blended course comprising 5 online, self-study modules and 5 online contact sessions.

CONTENT: This is a 4-month blended course, facilitated online, which consists of 5 online, self-study modules and 5 interactive contact sessions. The course covers the basics of clinical research, and participants can choose to focus on either **quantitative** or **qualitative** research methods. We also provide guidance on how to write a protocol and put together the associated documentation. We will not cover laboratory research or systematic reviews.

INPUT REQUIRED: 12-15h for online content, 5x 1.5h contact sessions, extra time for protocol writing.

CERTIFICATION & CPD: Certificates of competence and CEU credits upon successful completion.

COST: R500 for Stellenbosch University staff and students, R5000 for external participants.



APPLICATIONS: www.sun.ac.za/RDStraining (from February 2022)

ENQUIRIES: Dr Karis Moxley karismoxley@sun.ac.za | Dr Tania Brodovcky taniab@sun.ac.za

Clinical Research Manuscript Writing Course



Save the dates:

23 August – 27 September 2022

From data



to manuscript



in 6 weeks



TARGET AUDIENCE: Registrars, postgraduate students and early career researchers who are ready to begin or are in the process of drafting a quantitative research manuscript for publication. Research supervisors and consultants who need a manuscript writing refresher are also welcome.

COST: This course is open free of charge for registered students or staff members at Stellenbosch University. Unfortunately, we are unable to accommodate non-SU participants at this time.

FORMAT: The 2021 iteration of this course will comprise a six-part webinar series, facilitated via Zoom every Tuesday for six week. There will be opportunities for interaction and Q&A with the facilitators.

CONTENT: The course covers the basics of writing for publication and how to navigate the publication process. Content includes writing guidance for quantitative primary research. The course will not cover writing for the publication of reviews, systematic reviews, and qualitative research or evidence synthesis.

OUTCOME: Participants are encouraged to complete a draft manuscript by the end of the course.

Webinar 1

Overview of academic publishing

23 August
15:00-16:30



Webinar 2

Planning & pre-writing

30 August
15:00-16:30



Webinar 3

Writing the methods section

6 September
15:00-16:30



Webinar 4

Writing the results section

13 September
15:00-16:30



Webinar 5

Writing the introduction & discussion

20 September
15:00-16:30



Webinar 6

Tying up loose ends & preparing for submission

27 September
15:00-16:30



APPLICATIONS: www.sun.ac.za/RegistrarResearch (from June 2022)

ENQUIRIES: Dr Karis Moxley karismoxley@sun.ac.za | Dr Tania Brodovcky taniab@sun.ac.za

Podcasts for self study

Registrar Research Webinar Series 2021

TARGET AUDIENCE:	Registrars (MMed candidates) and their supervisors.
CONTENT:	Webinar recordings with downloadable resources.
FORMAT:	Webinar recordings with downloadable resources.
ENQUIRIES:	Dr Karis Moxley karismoxley@sun.ac.za

Click on the following links to access the content. When prompted, login using your SUNId (123456@sun.ac.za and associated password).



[Overview of the MMed research journey](#)



[Writing a literature review](#)



[Searching the literature and managing references](#)



[Developing a research question](#)



[Features of academic writing](#)



[Top tips for obtaining ethics approval](#)



[Top tips for collaborating with a biostatistician](#)



[Introduction to qualitative research](#)



[Top tips for getting your research published](#)

Podcasts for self study

MMed Assignment Bootcamp 2020

TARGET AUDIENCE:	Registrars (MMed candidates) and their supervisors.
CONTENT:	How to write up an MMed research assignment in publication-ready format, and the examination process.
FORMAT:	Webinar recordings with downloadable resources.
ENQUIRIES:	Dr Karis Moxley karismoxley@sun.ac.za

Click on the following links to access the content. When prompted, login using your SUNid (123456@sun.ac.za and associated password).



[Getting started:](#) MMed assignment guidelines & choosing a target journal



[Methods:](#) Importance & key subheadings



[Results:](#) Tables, figures, and text



[Academic writing:](#) Argument, coherence, & clarity



[Discussion:](#) Structure & what this section needs to do



[Extended background & introduction:](#) Difference & how to write each section



[Tying up loose ends:](#) How to write an abstract & important revisions for the assignment

Acknowledgements

References

Brodovcky, T. and Moxley, K. 2022. Clinical Research Protocol Writing course, Faculty of Medicine and Health Sciences, Stellenbosch University.

Acknowledgements

Professor Nico Gey van Pittius

Professor Julia Blitz

Professor Robert Gie

Dr Tania Brodovcky

Dr Debbie Marais

Dr Michael McCaul

Dr Tonya Esterhuizen

Dr Marilize Burger

Mr Yusuf Ras

Image credits

Cover page photograph: Ivan Samkov for www.pexels.com

All icons: www.nounproject.com