



Call for SACEMA Internal Bursaries for 2017: Deadline 19 September 2016

SACEMA invites applications for bursaries to study towards MSc or PhD degrees, based at and supervised through SACEMA, in fields relating to epidemiological modelling and biostatistics. (**Note: There is another call and associated application process for External Bursary applicants. If you intend to be based at and supervised from any institution in South Africa, you should respond to the External Bursary call <http://www.sacema.org/node/call-for-sacema-external-bursaries-for-2017>.)** A background in quantitative methods is required, and interdisciplinary experience is welcome. Previous exposure to SACEMA's core research areas will be an advantage, and priority will be given to applicants demonstrating high motivation and affinities for the following areas in which SACEMA's current projects lie:

- HIV surveillance; in particular, incidence estimation methods and their application.
- Transmission and spread of sexually transmitted infections; in particular, the role of age-disparate relationships and inference of sexual networks from multiple data sources.
- Antiretroviral treatment outcomes; in particular, treatment resistance and immunology.
- Evaluating options for the control and prevention of infectious diseases; in particular, strategies to eliminate HIV and TB transmission.
- Zoonotic and vector borne diseases; in particular, the impact of climate change on tsetse-borne trypanosomiasis.
- Interactions between infectious diseases and chronic conditions, at the scale of individuals or populations.
- Demographic and health system implications of changing patterns of mortality and disease.
- Disease processes at the individual level; in particular, development of cancer and mechanisms of TB reactivation.

The DST/NRF Centre of Excellence in Epidemiological Modelling and Analysis (SACEMA) is a national research centre based at the University of Stellenbosch. The centre is dedicated to the modelling of disease transmission and progression, focusing on South Africa's major health challenges. SACEMA provides research facilities and a stimulating environment in which scientists can interact to transcend disciplinary and institutional boundaries. Our goal is to engage innovatively with fundamental issues in epidemiology and produce quantitative evidence to guide important decisions in national and international health policy.

It is part of SACEMA's mission to foster links and generate inter-disciplinary collaborations with researchers at other institutions, and SACEMA bursaries are also available for a broader range of applicants in a variety of fields, with the bursary holder and supervisor based at another institution in South Africa. As stated above, students intending to be based elsewhere should apply for an external bursary under a separate call <http://www.sacema.org/node/call-for-sacema-external-bursaries-for-2017>.

Registration will normally be in one of the following departments at Stellenbosch University: the Department of Mathematical Sciences in the Faculty of Science, the Department of Statistics in the Faculty of Economic and Management Sciences, or the Division of Community Health in the Faculty of Health Sciences, depending on the applicant's background and the main thrust of the intended research. In addition to any resources offered by the registering department, MSc and PhD students will have access to a desk in SACEMA, and full participation in the activities of the centre is expected. SACEMA's stimulating research environment includes regular group discussions, research seminars, and workshops. Relevant coursework will be recommended by SACEMA in consultation with supervisor(s) and satisfying the requirements of the registering department.

Applicants are requested to complete the online Internal Postgraduate Bursary application form <http://sacema.org/applications/add/intbursaries>, including a clear statement of research interest and motivation. This must include a selection (in order of preference), from the SACEMA core areas listed above, explaining why you are interested in pursuing each topic, why modelling is an appropriate way to approach the problem, and why such a study would be a valuable contribution to solving major regional health challenges. PhD applicants are expected to supply more substantial detail of their motivation and intentions, and to demonstrate significant knowledge of proposed research areas.

While a detailed, ready-made research proposal is not required from Internal Bursary applicants upfront; the applicant's research potential and motivation will be evaluated through an interactive process. This engagement will begin immediately after each application is received, and successful candidates will be notified as soon as possible, subject to any outstanding results/transcripts being received.

Successful PhD students, once notified, will work with a supervisory team to formulate a research proposal. Successful Masters candidates will continue to be guided towards and inducted into appropriate research projects, and allocated supervisory teams, during the first few months of their tenure, while taking research initiation courses at SACEMA and University coursework modules.

The application form is available online at <http://sacema.org/applications/add/intbursaries>

Closing date for applications: Monday 19 September 2016

Further enquiries may be directed to:
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