

**School of Geosciences**  
**University of the Witwatersrand**



**Guidelines for Post-Graduate Students**

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## 1 INTRODUCTION

This guide is meant to make you aware of the Wits University and School of Geosciences (SOG) rules and regulations, both formal and informal, as well as your rights and privileges as students and young researchers. These matters are relevant to all students in the SOG, including those studying Geology, Palaeontology, Palaeoanthropology, Geophysics, Geochemistry and Environmental Sciences. The goal is to help you get through your post-graduate experiences at Wits in the most efficient, productive and enjoyable manner. This guide is not meant to replace or supersede, but instead to complement the many other relevant documents available from the University. The following is a list of relevant documents that you should be aware of. Most of these documents can be obtained from the Faculty of Science Office, and also from the SOG Main Office.

Name of Document	Where Obtainable	Contain What
General Information for Post Graduate Applicants	Faculty of Science Office, The Gatehouse, SOG Main Office	General information on admissions, financial aid, accommodation, awards & scholarships, application forms, etc.
Registration and Re-Registration Information	Faculty of Science Office, The Gatehouse, SOG Main Office	A brief summary of general registration information, fees, etc.
Rules and Syllabuses, Faculty of Science	Faculty of Science Office, The Gatehouse, SOG Main Office	Formal rules & regulations, degree requirements, curricula, examination of theses/dissertations, etc.
Guidelines for Research Proposal	Faculty of Science Office, The Gatehouse, SOG Main Office	Rules & suggestions for preparation of research proposal
Notes to students <i>and</i> supervisors on higher degree candidature	Faculty of Science Office, The Gatehouse, SOG Main Office	Important guidelines regarding student-supervisor interaction
Guidelines for the preparation of research reports	Prof. Lew Ashwal, SOG Main Office	Suggestions on how to write effective research reports & papers for publication
Guide for the Preparation of Theses, Dissertations and Research Reports	Faculty of Science Office, The Gatehouse (R10 charge)	Guidelines, suggestions, tips & rules on preparation of thesis/dissertation
Information for the guidance of examiners for the degree of Ph.D. (also M.Sc. by research or coursework)	Faculty of Science Office, The Gatehouse, SOG Main Office	Instructions given to internal and external examiners of theses and dissertations

## 2 REGISTRATION

In general, all students who desire to undertake post-graduate studies in the SOG, should carefully consider a possible research topic, and identify a supervisor with whom they wish to study. Supervisors can frequently provide financial support, bursaries, registration fees, etc., so it is important to make contact with potential mentors. This applies especially to students who desire degrees by research instead of coursework. Useful information in this regard can be found on the SOG website <http://www.wits.ac.za/geosciences>. Application forms and other information may be downloaded from the Wits University Postgraduate Website: <http://www.wits.ac.za/postgrad>.

It is important to note that initial registration is provisional. Candidates are considered for confirmation (formal acceptance) by the Graduate Studies Committee only after a period of up to 6 months, by which stage the students should have submitted a research proposal for consideration by the Graduate Studies Committee. Details about preparation of the research proposal are given below.

Once enrolled, all post-graduate students must complete annual registration forms before 31 January, including those students who first registered in the second term of the academic year. Annual registration fees are the same for South African and non-South African post-graduate students, except that non-South African students are required to pay an additional fee (R1750 in 2003). All non-South African students are obliged to take out medical insurance.

The University requires **all** M.Sc. and Ph.D. students to remain registered until graduation. You must, therefore, renew your registration, regardless of whether you have physically left the University. Failure to do so may result in a late registration fee, or in cancellation of your candidacy for your degree. In the last year of your registration,

you can get a full year refund if you submit your thesis/dissertation before 31 March. For further details, see the brochure “*Registration and Re-registration Information*” for all candidates for the degrees of M.Sc. and Ph.D. (Faculty of Science).

The normal minimum and maximum periods of registration are as follows:

<b>Degree</b>	<b>Minimum</b>	<b>Maximum</b>
M.Sc. (full time)	1 year	3 years
M.Sc. (part time)	2 years	4 years
Ph.D. (full time)	2 years	5 years
Ph.D. (part time)	4 years	7 years

Anyone can be registered for a longer period of time, but only under exceptional circumstances, and with the approval of the Head of School and the Graduate Studies Committee. Also in exceptional circumstances, candidates may apply to have their candidature put into abeyance, for a maximum period of 2 years. Such candidates can be re-instated, but afterwards, the candidate must submit the thesis/dissertation within 3 months of the date of reinstatement.

### **3 DEGREE REQUIREMENTS**

The University specifies formal degree requirements in the Faculty of Science booklet “*Rules and Syllabuses*”, printed annually. This booklet is available from the Faculty of Science Office in the Gate House and from the SOG Main Office. A short summary of the important points is given below.

#### **M.Sc. by Research (Currently Offered in Geology, Geophysics, Palaeontology, Palaeoanthropology, Environmental Science)**

- Not less than one academic year of advanced study or research, or both, under the guidance of a supervisor appointed by the Senate
- Dissertation on a subject approved by the Senate- such dissertation must show acquaintance with methods of research
- If all of the examiners judge the dissertation to be of outstanding merit, then the degree may be awarded with distinction
- May be required to present him/herself for an examination or test, oral or written or both (not usually necessary)

#### **M.Sc. by Coursework and Research Report (Currently Offered in Environmental Sciences and Mining Geology)**

- Senate-approved curriculum not less than one academic year of full-time study, or two academic years of part-time study
- Not less than one year of coursework
- Research report under supervision (not equivalent to an M.Sc. dissertation, and in School of Geosciences, usually counts for 50% of the total mark)
- A pass mark for the degree is 50% and a candidate obtaining 75% or more for **both** coursework and research report component will be awarded a distinction
- May be required to present him/herself for an examination or test, oral or written or both (not usually necessary)

#### **Ph.D. (Currently Offered in Geology, Geophysics, Palaeontology, Palaeoanthropology, Environmental Science)**

- Admission to candidacy:
- M.Sc. degree
- B.Sc. Hons, with permission of the Senate (under exceptional conditions)
- Not less than two academic years of full-time research or four years of part-time research
- Thesis representing a substantial contribution to the advancement of knowledge in the subject chosen, with satisfactory literary presentation and in a form suitable for publication
- Degrees may be awarded or rejected, but no distinctions are offered
- May be required to present him/herself for an examination or test, oral or written or both (usually not necessary)

An important point for post-graduate students enrolled in the M.Sc. programme: the minimum degree requirement is that you must **demonstrate acquaintance with methods of research**. This means that your dissertation does not necessarily need to involve research *per se*, in other words the acquisition of new data and/or ideas, and their scientific interpretation. Acquaintance with the methods of research means that:

- (a) understands the nature and purpose of the investigations
- (b) is sufficiently acquainted with the relevant literature
- (c) has mastered the necessary techniques
- (d) has acquired a thorough understanding of scientific methods
- (e) is capable of assessing the significance of the findings

Historically, however, in the School of Geosciences, M.Sc. work has come to involve substantial research. Of course, many, perhaps even most M.Sc. students prefer to involve themselves in actual research, and your supervisor(s) may encourage this.

In contrast, the minimum Ph.D. degree requirement involves a **substantial contribution to the advancement of knowledge**. An important point for Ph.D. students is that by mutual consent between the supervisor(s) and student, the main degree requirement may be submitted as a **series of published scientific papers** instead of a written thesis. There are several rules and guidelines about this, which are obtainable from the Faculty of Science. These are summarized as follows:

- The student need not commit himself/herself as to whether the Ph.D. will be submitted as a written thesis or as a series of published papers at the time of registration. However, written notification to the Faculty of Science is required at some stage before submission.
- Only papers published after the student has registered at Wits for the Ph.D. degree may be submitted as part of the Ph.D. thesis.
- In the case of a thesis by published papers, the final document must include a clear statement of the format of the thesis, indicating which results have already been published, and which results have not been published (effectively serves as an introduction to the field of study and the objectives).
- The main body of the thesis can be composed:
  - entirely of published refereed papers and conference proceedings
  - of published refereed papers and papers in press
  - of published papers, papers in press and unpublished work
  - of papers in press and unpublished work.

It is also important to realize that there are certain guidelines as to the types of publications that are acceptable for these purposes, the relative contributions of co-authors, and the order of authorship. In all instances, the relative contributions of others must be clearly stated. Please check with your supervisor(s) or the Head of School.

#### **4 RESEARCH PROPOSAL**

Within the first 6 months after initial registration, each M.Sc. or Ph.D. student must submit a formal Research Proposal for approval by the University Graduate Studies Committee. The proposal is usually reviewed by the supervisor(s) before formal submission. A 1-page summary entitled *Guidelines for the Research Proposal* may be obtained from the Faculty of Science, and are summarized here. The proposal should be a "carefully written and argued research report/dissertation/thesis proposal of not more than 10 pages", in which each student must:

1. Suggest a title (brief and precise)
2. State concisely and specifically the aim of the research
3. List the specific problems to be investigated or the specific hypothesis to be tested
4. Give a brief review of the relevant literature.

Where applicable:

- a. State the design of the experiment and procedures for data collection
- b. Describe the subjects (human, animal) to be used
- c. Describe the materials, tests or apparatus to be used
- d. Describe the methods that will be used to assess & process data
- e. State precisely what statistical procedures will be used to assess data
- f. Ethics Committee approval must be obtained in the case of human or animal subjects

The Research Proposal should be signed by the student, the supervisor(s) and the Head of School before formal submission to the Faculty of Science Office for the approval of the Graduate Studies Committee.

## 5 UPGRADING FROM M.Sc. TO PH.D.

It is possible, in certain cases, to upgrade from candidacy for the M.Sc. degree, to the Ph.D. There are two possible approaches:

- Rule S.65- After completion of all the requirements for the M.Sc. degree (including the dissertation), a student may request NOT to have the M.Sc. degree awarded, but instead be entered into candidacy for the Ph.D. degree, which necessarily involves at least one full additional academic year of research. The Ph.D. thesis then becomes an extension of the research already completed for the M.Sc. degree.
- Rule S.81(2)- In this case, the student is upgraded before completion of the M.Sc. degree requirements, after at least 12 months of study. In this case, the original date of registration for the M.Sc. degree will become the date of registration for the Ph.D. degree. A motivation must be written by the supervisor, explaining why the upgrade is warranted. This must be approved by the Head of School, and submitted to the Faculty of Science Graduate Studies Committee, along with a new, expanded Research Proposal.

The important difference between the two rules is that under Rule S.65, the M.Sc. dissertation is fully examined, but not awarded. The dissertation is held for safekeeping in the Faculty of Science office. If the Ph.D. is not completed, for any reason, the candidate can request to have the M.Sc. degree awarded instead.

Please be aware that upgrading from M.Sc. to Ph.D. is granted only in exceptional circumstances, and must be approved by mutual consent of the student, his/her primary supervisor and the Head of School, as well as the Faculty of Science Graduate Studies Committee. For further information, consult the *Rules and Syllabuses* booklet.

## 6 SUPERVISORS AND THESIS/DISSERTATION COMMITTEE

Each post-graduate student must have a staff member who serves as primary supervisor for the M.Sc. or Ph.D. degree. Co-supervisors may be appointed, usually by mutual consent between the student and primary supervisor. Co-supervisors may be other staff members at Wits University, individuals from outside the University (e.g. at other South African Universities, Research Councils and/or industry), or from overseas institutions.

In order to ensure effective supervision of post-graduate students, it is recommended that a thesis/dissertation committee be set up, consisting of the primary supervisor and at least one other staff member in the SOG. This is a new policy established in 2003, and is designed to ensure that (1) the primary supervisor provides effective guidance and leadership aimed at completion of degree requirements in a timely fashion, and (2) the research programme (e.g. laboratory and field work, literature research, etc.) is organized effectively, using facilities and equipment available at the SOG and/or elsewhere. Member(s) of the thesis/dissertation committee can be drawn from all members of SOG staff, and need not possess research expertise in the field of study. Separate committees may be set up for different discipline areas such as paleontology/palaeoanthropology, geophysics, geology and environmental sciences. The committee should be administrative, rather than scientific in nature. The thesis/dissertation committee should meet formally with each student at least every 6 months, and a short summary of the discussions should be filed with the SOG office, where it will be placed in a file kept for each post-graduate student. Faculty is developing a policy in which a standard progress report form has to be completed regularly

Supervisors of post-graduate students must realize that they are taking on substantial responsibilities when accepting this role. The research subject should be interesting, challenging, and feasible in terms of financial and logistical constraints. It should be chosen for **academic** reasons. Extensive periods of registration are to be discouraged- the University receives financial subsidies for only **one** year for an M.Sc. student and **two** years for a Ph.D. student. The relationship between supervisor and student must be based upon mutual respect and shared interest. Supervisors should train students to develop good scientific habits and work ethics. His/her role in the supervisory process should be made clear to the student at an early stage, and should carefully review the thesis/dissertation before formal submission.

For further details and guidelines, see the booklet "*Notes to students and supervisors on higher degree candidacy*", available from the Faculty Research Office.

## 7 THESIS/DISSERTATION

The content and format of your thesis/dissertation will depend upon the degree you are seeking, the submission options you have selected, and the recommendations of your supervisor(s). Of course it will be assumed that you are familiar with the layout and structure of scientific writing, both from your experience with the scientific literature, and by looking at the theses and dissertations of former students. These are all available in the libraries. For grammatical questions and style, I suggest: "*The Elements of Style*" by W. Strunk and E.B. White, Allyn & Bacon, 92 pp (available in campus bookshops for less than R100). You will also find some valuable suggestions in the document I put together called "*Guidelines for the Preparation of Research Reports*". The Faculty of Science also provides a booklet entitled "*Guide for the Preparation of Theses, Dissertations and Research Reports*", which can be obtained for R10 from the Faculty Office in the Gate House.

Preparation of a thesis/dissertation normally involves the generation of a number of draft copies, each entailing corrections and suggestions from your supervisor. You have the right to expect draft material submitted to your supervisor to be returned to you in a timely manner, but you must respect the busy schedules of your supervisor(s). Please discuss with your supervisor(s) ahead of time about the submission of draft material. A lot of time and effort can be saved if make effective use of computer spell-checkers and grammar checkers. The submission of a thesis/dissertation for examination is a formal process and several bound copies ("ring" binding is acceptable at this stage) and unbound copies (for the Wits library and archives) are required for official review by the supervisor(s), and one or more external examiners, usually appointed by the primary supervisor. Formal submission is usually accompanied by a note from the supervisor to the University, declaring that the work done is original and meets the supervisor's minimum requirements for submission. It is possible, however, to submit a thesis/dissertation without the acquiescence of the supervisor, but this should not be taken lightly. Such cases could arise, for example, when a scientific or technical disagreement occurs between student and supervisor. When a thesis/dissertation is submitted without the acquiescence of the supervisor, the Chairman of the Higher Degrees Committee, in consultation with the Head of School, will appoint another examiner. The supervisor will **not** serve as an examiner.

There are specific procedures that must be followed in the cases of submission without supervisor's acquiescence. You may read about these in the Wits University Senate Standing Orders on Higher Degrees, which may be downloaded from the following website:  
<http://www.wits.ac.za/depts/wcs/helpdesk/Higher%20Degrees%20Orders.doc>

For details about requirements for submission of theses/dissertations, please refer to the booklet "*Guide for the Preparation of Theses, Dissertations and Research Reports*", which is available for R10 from the Faculty of Science Office.

## 8 PLAGIARISM

The University has recently formalized a strict policy regarding plagiarism (intentional failure to acknowledge the ideas of another). The policy document may be obtained online from: <http://www.wits.ac.za/depts/wcs/helpdesk/PLAGIARISM%20POLICY.doc>. When preparing your thesis/dissertation, or when writing scientific articles for publication, you must be extremely careful to properly reference the original sources of all ideas, facts, data, illustrations, etc. Please do not even think about copying text directly from other sources, including internet sources. Failure to do so is a serious University offense. All plagiarism at post-graduate level is considered by the University as a "Level 3" offense, which can result in dismissal from the University. The submitted copy of your thesis/dissertation must contain a separate, signed declaration page, in which you formally state that your work is your own, unaided work. If this is not the case, you must specify what assistance you have received. An example of the conventional form of declaration page can be found in the booklet "*Guide for the Preparation of Theses, Dissertations and Research Reports*", available for R10 from the Faculty of Science Office.

## 9 THESIS/DISSERTATION EXAMINATION

After submission, your thesis/dissertation will be sent out for formal examination to your supervisor(s) and to one or more appointed external examiners. External examination is important to ensure quality control of the research carried out at the University.

Procedures for the nomination and appointment of examiners are laid down in the Senate Standing Orders (<http://www.wits.ac.za/depts/wcs/helpdesk/Higher%20Degrees%20Orders.doc>). At School level, these procedures are implemented as follows. Supervisors will be asked to submit names and contact details of potential examiners to the SOG Post-Graduate Committee. This committee is entitled to seek further nominations from elsewhere, and advise the Head of School on the appropriate examiners

For M.Sc. candidates, one external examiner must be appointed, and this individual is generally sought from outside the University, but not necessarily from outside South Africa. For Ph.D. candidates, two external examiners are appointed, one of which must be from outside the borders of South Africa. The supervisor(s) are considered the “internal” examiners of the thesis/dissertation. All examiners are given guidelines and forms by the University to use when preparing their reports, and are strongly encouraged to finish their reports within a specified time period (maximum within 2 months of receipt). The completed examiner’s reports are sent to the Faculty of Science, not to the supervisors. The Faculty Office then circulates the reports to the Graduate Studies Committee. One of the reasons for this is to handle cases in which examiners choose to remain anonymous, although this is not common.

Unlike at some other Universities, percentage marks are not given to theses/dissertations (although they are given for M.Sc. degrees by coursework). Instead, the examiners may make specific recommendations as to (A) award of the degree with dissertation/thesis as it stands (B) award of the degree subject to: (i) correction of minor errors, and/or (ii) revision involving, for example, rewriting of certain sections, and/or (iii) extension, for example, additions of sections and/or provision of additional data, (C) if yes in B(i) or B(ii), (a) can the Head of School check the revised version?, (b) does the examiner wish to re-examine the revised version?, (D) outright rejection. For M.Sc. dissertations, examiners are asked specifically if they recommend award of the degree “with distinction”. This is not possible for Ph.D. degrees. Copies of the instructions given to examiners of M.Sc. dissertations and Ph.D. theses are available for you to look at- see Prof. Ashwal or Dalena Blitenthall.

Outright rejection of the thesis/dissertation at this stage is not common, but examiners may recommend revisions that are so extensive so as to represent basically complete re-writing, with or without re-examination. Minor corrections of an editorial nature are typically included in all examiners’ reports, but there may also be more serious recommendations for changes in scientific content. In cases where all examiners agree on the outcome of the submission, the set of reports is returned to the supervisor, through the Head of School, for presentation to the student, along with a set of instructions for revision, if necessary. In cases where the examiners differ as to the fate of the submission, the Graduate Studies Committee will take certain actions, depending upon the nature of the disagreement. For example, if one examiner recommends pass with distinction for an M.Sc. dissertation, but another recommends against the award of a distinction, the Committee will usually contact the dissenter to ask if he/she would be prepared to consider a change of decision in favour of distinction. If this examiner insists that the work is not of distinction quality, then this decision is maintained, and the student is not awarded a distinction. In more serious cases where the examiners disagree as to whether or not the submission should be passed or failed, the Chairperson of the Graduate Studies Committee will appoint an arbitration subcommittee, consisting of the supervisor, the Head of School, and another member of the Graduate Studies Committee. Typically (but depending upon the examiner’s reports), the thesis/dissertation may then be sent to a new external examiner, along with all of the existing examiner’s reports. This new examiner will then be asked to adjudicate a decision regarding the fate of the submission. Such cases are unusual, however, and normally the examiner’s reports and detailed comments are returned to the student for revisions, if necessary, and preparation of the final thesis/dissertation.

After completion of the revisions to the thesis/dissertation, the candidate must submit a report to the Head of School or the primary supervisor, explaining how the revisions have been undertaken. After approval, the appropriate number of copies of the thesis/dissertation are bound and distributed. Note that copies are required for the supervisor(s) and also for the University library, the State library, and for the Council for Geosciences, which maintains the comprehensive national geosciences library. At this point congratulations and a party are in order.

## 10 PUBLICATIONS

Publications in peer-reviewed scientific journals are important for three reasons. First, this still remains the primary means of dissemination of scientific data and ideas. Second, they represent very important measures of research productivity, both for you and your co-authors. Third, South African Universities receive substantial funds from the Department of Education for each publication “unit” that appears in a recognized scientific journal or other publication form. Units are determined based upon the authorship list and the institutional affiliation of the authors. For example, a paper with 6 co-authors, 2 of which are from Wits University, will yield 2/6, or 0.33 of a publication credit, if the article appears in a recognized journal, taken from a long list maintained by the Department of Education (this list is available from the library).

You are encouraged, therefore, to publish the results of your research, either while enrolled at Wits as a post-graduate student, or as soon as possible thereafter. If you fail to publish your results, the responsibility then transfers to your supervisor(s), who will usually have little time to work up your thesis/dissertation results into publishable form. If you have publishable results obtained at other institutions, it is important to list the Wits University SOG as your present address on the paper, so that Dept. of Education units can be credited here, and the important funds can be awarded. Likewise, any research work done at Wits should be credited as such, even if you leave the University- of course you should list your current address on the paper, but the Wits SOG affiliation should also be indicated.

## 11 FINANCIAL SUPPORT AND BURSARIES

There are several sources of financial support for post-graduate students. Extensive information on merit awards, scholarships and financial assistance can be found in the booklet entitled “General Information for Post-Graduate Applicants”, available from the Faculty of Science Office (Gate House) or on the internet.

Many students are supported by grants from the South African National Research Foundation (NRF) to individual staff members. A certain number of Honours, M.Sc., Ph.D. and post-doctoral bursaries are frequently awarded on a competitive basis to staff members who request them along with their research funding applications. At present, M.Sc. bursaries are valued at R14,000 and Ph.D. bursaries at R21,000 per year. M.Sc. bursaries are awarded for a maximum of two years, and Ph.D. for a maximum of three years. The bursaries can be topped up at the discretion of the individual staff members to a maximum of R42,000 (full time M.Sc. students) or R63,000 (full time Ph.D. students). NRF bursaries carry an obligation by each student to conduct “departmental” duties such as demonstrating, teaching, tutorials or other assistance, to a maximum of 12 hours per week. Full time NRF bursars are not allowed to hold full time salaried employment during the tenure of the bursary. Should a student supported by an NRF bursary not complete his/her degree, the NRF may insist upon being repaid in full the money allocated for the bursary. Further information on NRF bursaries may be obtained from their website: <http://nrf.ac.za>.

Wits University also has a number of merit awards, scholarships and financial aid packages for post-graduate students. Post-graduate merit awards vary in amount, but generally these are sufficiently generous such that all qualified post-graduate students should apply for them. These awards are based entirely upon academic merit, and may be applied for by South African and non-South African students. These awards are for full time Honours, M.Sc. or Ph.D. candidates who receive a positive recommendation from the Head of School and are given for a maximum of 2 years (M.Sc.) or 3 years (Ph.D.). These awards also carry an obligation to conduct 6 hours per week of “departmental duties”, such as demonstrating, etc. Note that the SOG requires a maximum of 6 hours per week of departmental duties, regardless of which, or how many forms of financial assistance requiring such work you receive. For application forms and further information on other sources of financial support from Wits University, go to the website: <http://www.wits.ac.za/postgrad/bursaries.html>.

Many post-graduate students are supported through research grants and contracts made between staff members and industry partners. In some cases these are proper industry bursaries, which carry employment obligations for specified periods after graduation. In other cases the industry support involves no subsequent obligations on the part of the student. Check carefully with your supervisor as to the details of industry-supported post-graduate bursaries, etc. In some cases the research work involved with industry-supported bursaries carries agreements as to confidentiality- this can have serious effects upon the possibilities of publication of the research results, at least for some specified time period. Again, it is important for you to be aware of all of the contractual obligations involved with your bursary or other form of financial support.

## 12 POST-GRADUATE COORDINATOR AND POST-GRADUATE COMMITTEE

The Wits University Senate has recommended that all Schools appoint a Post-Graduate Coordinator, whose duties are as follows:

- be the contact person for students
- advise applicants on application procedures, potential funding routes, etc.
- provide information to students and prospective supervisors on possible post-graduate funding routes, awards, bursary programs, etc.
- forward necessary information required to the Faculty regarding applications for admission
- recommend appointment of supervisors and recommend admission to degree candidature
- monitor supervisory workloads of academic staff
- advise supervisors of training & support programmes
- organize regular presentations & discussion sections in which post-graduate students provide progress on their thesis/dissertation work
- establish and serve on a Post-Graduate Committee, whose duties are:
  - ensure that new students are familiar with rules & procedures
  - assess feasibility & scope of student research proposals
  - ascertain whether ethics clearance is required
  - ensure timely submission of research proposals
  - review candidates' progress at regular intervals
  - ensure that recommendations made during regular interviews are implemented
  - deal with grievances in the first instance
  - ensure timely and appropriate nomination of examiners
  - ensure timely submission of theses/dissertations
  - ensure that necessary corrections are made to theses/dissertations
  - encourage publication of research results

For 2003-2004, the School of Geosciences Post-Graduate Coordinator is Prof. Lew Ashwal, Geosciences Building, Room 5, Ground Floor, Phone 717-6652, e-mail [ashwall@geosciences.wits.ac.za](mailto:ashwall@geosciences.wits.ac.za) For 2003-2004, the School of Geosciences Post-Graduate Committee will consist of: Prof. Lew Ashwal (Chair), Dr. Guy Charlesworth, Dr. Marion Bamford and Dr. Mike Jones.

## 13 COLLOQUIA & PRESENTATIONS

Oral presentation of research results is an important part of science, in the academic as well as the industrial setting. Therefore, the SOG strongly encourages students to give at least one, and preferably more than one talk during their stay at Wits. There are several possibilities for this. The School of Geosciences currently offers a weekly series of seminars or colloquia, on Thursday afternoons at 16:30, in Room 101. This is a public lecture series, in which geoscientists from the local community of scholars as well as from elsewhere give talks, usually lasting 40-60 minutes, followed by questions. Beer and cold drinks are available for purchase. These Geoscience Seminars are currently organized by Dr. Judith Kinnaird. The BPI Palaeontology also runs colloquia series on the last Wednesday of every month, in Room 117B of the Van Riet Lowe Building. These colloquia are currently organized by Dr. Alain Renault. All post-graduate students are encouraged to participate in these Seminars, certainly as members of the audience, but also as speakers. The exercise of preparing a presentation for such a talk is extremely valuable in organising your data, ideas and illustrations, and gives "outsiders" a chance to make constructive comments on your work. Please see Dr. Kinnaird to schedule a date for a presentation- this could take place at any stage of your tenure as a post-graduate student.

Formally organized scientific conferences and workshops represent another venue for post-graduate students to present their work, either in the form of an oral or a poster presentation. The costs for attending such conferences and workshops normally are the responsibility of individual supervisors, but some funds are available from the SOG. Attendance at national and international conferences represents a particularly effective way for post-graduate students to make contacts, find jobs and learn about exciting research being done elsewhere. All SOG post-graduate students should make an attempt to attend and make a presentation at the Bi-annual Student Geocongress, which is held at a different South African University every two years.

As of the end of 2003, the SOG will organize a 1-2 day long research seminar, in which all post-graduate students will be asked to make a short (~15 minutes) presentation on their work. Staff members in the SOG will be welcomed. Students can present the nature and/or results of their research projects at any stage of completion.

## 14 DEMONSTRATING AND DEPARTMENTAL DUTIES

All post-graduate students who receive bursary support from NRF or Wits University merit awards are obliged to conduct “departmental” duties such as demonstrating, teaching, tutorials or other assistance, for 6 hours per week for the entire academic year. Demonstrating duties normally consist of attendance at and assistance with practical sessions for undergraduate classes, marking of lab reports and other classwork submissions, and possibly some lecturing. Such duties represent valuable teaching experience and could be included on your c.v. Our undergraduate student numbers are growing rapidly, and so your help with this type of instruction is extremely valuable to the SOG. Please take these duties seriously.

Other forms of “departmental” work could include participation in field excursions, including driving of departmental vehicles, help with designing and creating museum displays, help with periodic school visits to the museums, maintenance of SOG computer facilities, assistance in analytical laboratories, or other work as deemed necessary by the Head of School. It is not normally appropriate for students to satisfy their departmental work obligations by carrying out menial or other tasks for specific staff members- these duties should serve the SOG, rather than individual staff members.

A staff member will serve as coordinator of all student demonstrating activities. Currently Prof. Lew Ashwal serves in this role.

## 15 STUDENT REPRESENTATION

Each year a Post-Graduate Student Representative is elected by the students. For 2003 Ms. Charlie Seabrook has agreed to serve in this role. The Post-Graduate Student Representative’s duties are to serve as a liaison between the students and the academic staff, and to report any concerns of the students as a whole. The delegate is invited to attend and participate in all SOG Staff meetings.

To assist the Post-Graduate Student Representative in his/her tasks, the SOG has set up a Post-Graduate Committee, consisting of representatives from Geology, Geophysics, Palaeontology/Palaeoanthropology and Environmental Science. This committee is tasked with providing informal support and information (such as on matters relating to housing, transportation, insurance, advice, etc.) to incoming students.

## 16 HOUSING

There is an overall shortage of student housing at Wits University, both on-campus and off-campus. On-campus housing presently accommodates 4,400 students in 20 different residences. Both catering and non-catering options are available. Fees for catering accommodation range between R12,570 and R15,781, depending on various catering options. Applications for residence accommodation must be submitted by 20 September in the prior year. The residences are usually filled quickly and there is usually a long waiting list, so apply early. For further information contact the Wits University Office of Residence Life, PO Box 660, WITS 2050, phone (011) 717-9170/2/3/4, e-mail [residence@residence.wits.ac.za](mailto:residence@residence.wits.ac.za), or see the website: <http://www.wits.ac.za/reslife>

Many post-graduate students live off-campus, in garden cottages in the local area, or in communal accommodation with other students. Some form of transportation is typically necessary, either a car, motorbike, bicycle, etc.

## 17 INSURANCE AND HEALTH

Some form of medical insurance coverage is strongly recommended for post-graduate students. For foreign students, this is a requirement for admission to the University. Few bursary schemes include medical insurance, and so this becomes the responsibility of the student to organize. Coverage is obtainable from numerous South African insurance companies; fees vary greatly, depending on the type of coverage. Given that fieldwork is often a necessary component of post-graduate training in geosciences, medical insurance is especially important, in case of accidents. Make sure that your insurance policy covers overseas travel if your research takes you outside the borders of South Africa. Insurance coverage for foreign students must include standard medical aid, day-to-day coverage and hospitalization coverage. The Wits University Medical Aid Fund offers several policy types for students. Please check with the International Office about this (see **19 Foreign Students**, below)

There is a Campus Health and Wellness Centre located in the Matrix on the East Campus, very close to the Geosciences Building. The Centre is open Monday – Friday 08:30 – 16:30, and consists of a registered, professional medical practice. Many services are free (family planning, medication for sexually transmitted infections, counseling for sexual harassment, etc.), but all patients are responsible for normal charges.

Consultation is done either by appointment, or on a walk-in basis (daily 08:00 – 12:00). Over-the-counter medications can be purchased at a cash discount.

Emergencies: Call 717-9111

Reception: Call 717-9113

Website: <http://www.wits.ac.za/depts/wcs/health.html>

## 18 LIBRARIES AND ELECTRONIC LIBRARY RESOURCES

Most of the relevant geoscience literature is housed in the GeoMaths Library, located in the East Corridor, First Basement Level of Senate House, about a 5 minute walk from the Geoscience Building or from the Van Riet Lowe Building (Palaeontology). The GeoMaths library serves the Faculties of Science, Arts, Engineering and the Built Environment, and is one of 14 branch libraries in addition to the 2 main libraries (Wartenweiler and Cullen). You may find it necessary to use one of these other libraries for specialized materials or general journals such as *Science* and *Nature*. The catalogues of all Wits University libraries are accessible electronically through the eWits catalogue, available to all registered students and staff via the Wits University website. Also available are a large variety of electronic databases, including Georef, which is a comprehensive geoscience database, containing some 2.2 million bibliographic records from over 3000 journals and other sources. Full inter-library loan facilities are available for materials not found in the Wits libraries. Renewals, library holdings, inter-library loan requests, special holds and bookings, and borrower information may all be taken care of electronically. Further information may be found at the library website: <http://www.wits.ac.za/library>

## 19 FOREIGN STUDENTS

All students who are not South African citizens or Permanent Residents will need to obtain a study permit before being able to formally register at the University. Study permits may be applied for at the South African High Commission, Embassy, Consulate or Trade Mission in your country of origin. Applications for study permits must be done **after** receiving a letter of acceptance from the University. As of 2003, you may enter South Africa on a visitor's or tourist visa and then apply for a study permit. The fee for study permit applications is currently R1050- this may increase in 2004. For further information you may contact the Department of Home Affairs in Johannesburg: 77 Harrison Street, Johannesburg City Centre, phone (011) 836-3228, from abroad +27-11-836-3228.

Medical insurance is a requirement for all study permit applications. University registration fees for foreign post-graduate students are the same as for South African students, except for an additional "handling" fee of R1750 (in 2003). A valuable resource for foreign students is the Wits University International Office, which offers a variety of services. They can be contacted by phone (+27-11-717-1054), fax (+27-22-717-1059) or email: [studysa@international.wits.ac.za](mailto:studysa@international.wits.ac.za). Check out their website at: <http://wits.ac.za/depts/intoffice/intoffice1.shtml>

## 20 SOCIETY MEMBERSHIP

Post-graduate students are encouraged to join the Geological Society of South Africa (GSSA). This is the oldest (established 1895) and largest professional geoscience society in Africa. Student membership presently costs R100 per year. As a member, you will receive the South African Journal of Geology and Geobulletin (both published quarterly). You will also be kept aware of Society activities and events and those of the Regional Branches and GSSA Divisions, including field trips, meetings, short courses, lectures, etc. Members are entitled to discounts on most publications and activities. Check out their website at: <http://www.gssa.org.za>.

## 21 PSSA

For Palaeontology students, the Palaeontological Society of South Africa offers membership for R45 per year. This includes a biannual newsletter and a biennial conference. There are also prizes for best student presentations.

## 22 SAGA

For students interested in geophysics, the South African Geophysical Association (SAGA) offers membership for R45 per year. This includes the monthly newsletters, invitations to monthly talks (with free drinks) and the annual general meeting. There are also SAGA prizes for best student talks and papers.

## **23 Rocsoc**

Rocsoc is the Wits University geoscience students club. Membership is offered to all Wits students for a small fee (R30 in 2003). The Rocsoc headquarters are located in Room 011 in the basement of the Geosciences Building. Besides being a viable drinking club, Rocsoc organizes student field excursions, lectures by visiting dignitaries, and other functions. Recently ROCSOC has organized weekly lunchtime travelogue talks by staff members. ROCSOC has a successful soccer team (Banana Banana) and an occasional cricket team (The Scroteas). A different ROCSOC T-Shirt is designed each year. There is also the Rocsoc dinner, described briefly below under Social Functions.

## **24 OFFICES**

All post-graduate students in the SOG are assigned an office from which to work. Offices may be located in the Geosciences Building, in the Van Riet Lowe Building (for Palaeontology students), in the Wedge (for Palaeoanthropology students) or in the Bernard Price Building (for Environmental Science and Isotope Geochemistry students). Offices are supplied with desks, bookshelves and in most cases, internet connections. Offices are generally shared between 2-3 post-graduate students.

## **25 SAFETY AND SECURITY**

These are issues of prime concern, both on- and off-campus. Petty crime is not uncommon, and although violent crime is rare on-campus, students unfamiliar with Johannesburg are advised to be wary of criminal activity, especially in the city center. Access to the Wits campus requires a student or staff ID card, and this has substantially improved security. The Campus Security office (Campus Control) operates a service whereby anyone on campus can be provided with an escort to accompany them between buildings, even after hours. Call 717-6666. Petty theft, particularly of cellular phones, occurs from time to time. Please keep all valuable items out of reach of potential lawbreakers.

Measures have been put in place to ensure, as best as possible, safety in SOG facilities, including workspaces and laboratories, and on field excursions. Work with toxic or otherwise dangerous chemicals must be done in appropriate fume cupboards. Use of machinery such as rock crushing and grinding apparatus, saws, etc., must be done under supervision during normal office hours, unless special arrangements have been made. Only drivers licensed for at least three years may operate SOG vehicles. Alcohol use is strictly forbidden in SOG vehicles. Students are requested to report any safety or security problems to Matt Kitching, Mitch Miles, the Head of School, or any other staff member.

## **26 KEYS AND BUILDING ACCESS**

Access to campus is provided by your student ID card, which is activated for the card swipers by the ICAM Office (Integrated Campus Access Management), located on the ground floor of Senate House (phone 717-1870). You should be able to enter all of the main university access gates, either on foot or by car. Access to the Geosciences Building after hours (before 7:30 and after about 17:00) also involves a card swiper, in addition to a back door key, which is issued to all post-graduate students. You will also be provided with keys for your office and any other rooms for which you need legitimate access. Matt Kitching (Geosciences Building) Wayne Costopoulos (Van Riet Lowe Building and the Wedge) and Johan Holtzhausen (Bernard Price Building) are in charge of keys and room/building access.

## **27 LABORATORIES**

The SOG has a number of laboratories for acquisition of analytical data, and for sample preparation. The X-ray Fluorescence (XRF), X-ray Diffraction (XRD) and Sample Preparation facilities are under the supervision of Mrs. Sharon Turner, and are located on the basement level of the Geosciences Building. This facility offers major and trace element analysis of rock and mineral samples and mineral identification by XRD. Facilities for crushing, grinding and pulverizing of rock and mineral samples are located in the small building outside the back door of the Geosciences Building. In addition, specialized rock and mineral processing facilities are located in the basement of the Bernard Price Building. The Thin Section Laboratory, managed by Mr. Alex Mathebula, offers thin and polished sections, and rock cutting services. Separate thin section facilities for palaeontological sections are present in the Van Riet Lowe Building. A small chemistry laboratory is located on the basement

level of the Geosciences Building, opposite the Bleloch Museum. A Fluid Inclusion Laboratory can be found on the ground floor of the Geosciences Building (Room 10), and contains apparatus for microthermometry. Access is by card swiper, and requires an activated student ID card. Also in this facility are numerous petrographic microscopes for transmitted and reflected light, and a digital photomicroscope for producing photomicrographs. The Heat Flow laboratory, managed by Dr. Mike Jones, is located on the basement level of the Geosciences Building. This facility allows measurement of thermal conductivity of rocks.

The Bernard Price Building houses the Hugh Allsopp laboratory, which contains 3 thermal ionization mass spectrometers, for measurement of Sr, Nd, Pb and other isotopes in rocks, minerals and other geological materials. Prof. Johan Kruger manages this laboratory. The Hugh Allsopp laboratory also contains 2 electron microprobe instruments for chemical microanalysis of minerals in polished thin sections.

## **28 SAMPLE STORAGE FACILITIES**

As geoscientists, you will very likely accumulate a collection of rock, mineral and/or fossil samples. Of course these should all be properly labeled and catalogued. Please be judicious about where and how you store these samples during your stay at the SOG. Rock storage facilities are available in the sub-basement of the Geosciences Building, in the basement of Senate House, in the Richard Ward Building (Palaeontology) and in the Wedge (Palaeoanthropology). For advice on cataloguing, please speak to Dr. Mike Raath (Wits University curator, 717-6683). Please avoid storage of samples in the hallways, within the rock preparation facilities, or in the laboratories. Large volumes of rock should not be stored in offices. When you are nearing completion of your degree, make sure that samples of all materials described in your thesis/dissertation are properly catalogued, and are stored in the appropriate storage facility. Samples that are not crucial for storage should be discarded effectively- please contact Matt Kitching or Wayne Costopoulos about this. It is your responsibility, not that of your supervisor(s) to ensure the proper integrity of your sample collection for posterity.

## **29 MAPS AND PHOTOGRAPHIC FACILITIES**

An extensive collection of geological, geophysical and topographic maps of South and southern Africa is kept in the basement floor of the Geosciences Building. For access, please see Matt Kitching. Some maps may also be obtained from Lynn Whitfield and Di Du Toit (Room G119). A fully equipped photographic darkroom facility is present in the Geosciences Building (Room 105, managed by a professional photographer, Ms. Henia Czekanowska, 717-6559). Basic darkroom facilities are also located in the Van Riet Lowe Building- this equipment may be used by all SOG post-graduate students and staff, by arrangement with Wayne

## **30 PHOTOCOPYING, FAX AND TELEPHONE**

The photocopy room in the Geosciences Building is located on the first floor, opposite the SOG main office. There are two photocopy machines in the Geosciences Building, both of which are heavily used. All post-graduate students are allowed to use photocopy and fax facilities for research purposes. Photocopies are not free. A 4-digit access code is required for all photocopies, and copy charges are made to specific accounts, representing research grants, teaching, departmental and other accounts. Check with your supervisor(s) for photocopy access codes for research purposes. Photocopy facilities are also available in the Van Riet Lowe Building (Palaeontology), the Wedge (Palaeoanthropology) and the Bernard Price Building (Environmental Science).

The fax machine in the Geosciences Building is located in the SOG main office. The number is (011) 717-6579. Fax use is also not free, and each fax sent must be recorded, with an indication of the account to be charged, in the booklet placed next to the fax machine. Personal faxes and photocopies are discouraged. Fax facilities are also available in the Van Riet Lowe Building (Palaeontology), the Wedge (Palaeoanthropology) and the Bernard Price Building (Environmental Science).

## **31 COMPUTERS AND INTERNET**

Internet access is available to all post-graduate students, but an application form must be signed by the Head of School. The University Computer Network Services (CNS) will then assign a user name and e-mail account. Most student offices have internet connections- in some cases these must be shared between officemates, until additional network points can be installed. There are two computer laboratories in the Geosciences Building, one in the basement, and another on the second floor (mainly for use by Geophysics students). Computers for students are also located in the Van Riet Lowe and Wedge Buildings. The SOG does not provide computers to individual post-graduate students, but in most cases supervisors can make provision for access to computing, scanning and printing facilities. Many post-graduate students have their own computing equipment. The SOG

has a data projector for presentations (e.g. PowerPoint). Most of the commonly used software packages (MS Word, Excel, CorelDraw, Adobe) are installed on the PCs in the computer laboratories.

### **32 MAILBOXES**

All post-graduate students in Geology and Geophysics are assigned an individual mailbox, located in the Photocopy Room, opposite the main SOG office in the Geosciences Building. For other SOG post-graduate students, separate mailboxes exist in the Van Riet Lowe Building (Palaeontology), the Wedge (Palaeoanthropology) and the Bernard Price Building (Environmental Science). You may make use of these mailboxes for professional and personal post.

### **33 VEHICLES AND PARKING**

Post-graduate students are occasionally called upon to serve as drivers during field excursions. Drivers of all University vehicles, including those in the SOG, must be in possession of a valid driver's license for at least 3 years. Foreign students must possess an international driver's license, or must obtain a South African driver's license. If you drive University vehicles, please take appropriate precautions to prevent vehicle theft. Most SOG vehicles are equipped with satellite tracking systems. Should a vehicle be stolen while in your care, the appropriate procedures are as follows. (1) report the theft to the nearest police station **immediately**, and obtain an official police report. (2) Notify the SOG, ideally through Matt Kitching (Geosciences, 717-6568/9, cell- 082-689-5147) or Wayne Costopoulos (Palaeontology/Palaeoanthropology, 717-6692), or Dalena Blithentall (717-6547), so that the satellite tracking system can be activated **as soon as possible**.

Parking on campus for personal vehicles of post-graduate students must be organized through the Parking Office, located in the Wedge (phone 717-1880). An annual fee of R250 supplies you with a windscreen sticker, and access to student parking facilities.

### **34 TEA/COFFEE CLUB**

All post-graduate students are cordially invited to participate in the SOG tea/coffee club, free of charge. Daily tea/coffee is served in the Bleloch Museum at 10:15 and 15:15, and the Common Room of the Van Riet Lowe Building at 10:15, 13:00 and 15:15. Attendance for 15-30 minutes at daily tea/coffee time is a good way to interact with SOG staff and students.

### **35 SOCIAL FUNCTIONS**

The Post-Graduate Club, also known as the Blind Pig, located across from the Wedge, adjacent to the Bernard Price Building, is a popular place to congregate after work for a drink and snacks. All post-graduate students are eligible for membership for a small fee. Hot, inexpensive lunches are available between about 12:30 and 13:30. The Club houses a rustic bar, some tables and couches, a TV, a dartboard, a huge globe (from Russia) and a broken upright piano. The website is: <http://www.wits.ac.za/pig/>

The Rocsoc dinner is a formal affair, held annually in late November, in which all SOG students and staff gather at the Wits Club for drinks, a catered dinner, prize giving and dancing. Staff members must pay, but student members of Rocsoc can attend for free. This is usually a very entertaining event.

Other social functions are held from time to time, on an ad hoc basis. Feel free to organize one!