

UNIVERSITY OF THE WITWATERSRAND

SCHOOL OF MINING ENGINEERING

POSTGRADUATE INFORMATION BOOKLET

(June 2023)



SCHOOL OF MINING ENGINEERING

(Wits Mining)

As updated from time to time

Last review date: 19 June 2023

Introduction

The purpose of this booklet is to give prospective postgraduate students a broad outline on application considerations for entry into the postgraduate programme. It should be read in conjunction with the:

- General Rules of the University;
- Faculty of Engineering and the Built Environment (FEBE) Rules and Syllabuses handbook which can be accessed via (<https://www.wits.ac.za/students/academic-matters/rules-and-syllabuses/>);
- Faculty Standing Orders on Higher Degrees and Senate Standing Orders on Higher Degrees; and
- Senate Standing Orders on the Assessment of Student Learning (SSOASL).

These documents, as amended from time to time, firstly, prescribe the official rules that govern our actions and decisions and secondly, take precedence over anything contained in this booklet. It should be noted that individual courses may vary in content and style of delivery, depending on the structure of the course.

Prof Bryan Watson (our School's Postgraduate Coordinator) and Ms Eunice Sediti (our School's Postgraduate Admin Officer) can advise you on the entry requirements and online process to apply for postgraduate studies in Mining Engineering in our School. Please liaise with them for any further advice you may require via email: Bryan.Watson@wits.ac.za or Eunice.Sediti@wits.ac.za. Note that for all applications, closing dates, required application documentation and any queries related to applications, you must contact the Wits Student Enrolment Centre (SEnC) on the link (www.wits.ac.za/askwits) to log your query, as all applications and queries are handled centrally through SEnC.

The School offers three postgraduate qualifications, namely:

1. **Master of Science in Engineering – MSc (Eng.) by research only** (1 Year Full Time; 2 Years Part Time) **ERA00 (MSc Dissertation)**
 - MINN8000A: MSc Dissertation (180 Credits)
2. **Master of Science in Engineering – MSc (Eng.) by advanced coursework and a research report** (1 Year Full Time; 2 Years Part Time) **ECA00 (MSc 50/50)**
 - 4 MSc courses (20 credits for total 80 credits)
 - 1 Research Methodology for Mining Engineering course (10 Credits)
 - 1 Research Report (90 Credits)

Students are encouraged to follow course combinations as recommended by the School, so that the combination of courses taken and the topic of the MSc 50/50 research report, when viewed collectively, can be considered to be within the following **broad streams**:

- Mine Planning and Optimisation;
- Mineral Economics;
- Rock Engineering;
- Environment and Sustainable Development;
- Mechanised Mining Systems;
- Mineral Resource Evaluation;
- Occupational Health and Safety;
- Valuation of Mineral Assets; and
- Mineral Resource Management.

3. **Doctor of Philosophy in Mining Engineering - PhD (Mining) involves submission of a research thesis. (2 Years Full Time; 4 Years Part Time) EDA02**

- MINN9000A: PhD Thesis (360 credits)

Masters or PhD students who have completed (n+2) years of study and still have not completed the degree will be considered as having Failed To Complete (FTC) the qualification. MSc (50/50) students who fail any course on the first attempt will also be coded as “FTC”. Should such students wish to continue their studies, they can appeal the FTC decision by applying for re-admission. Approval for such readmission may be given by the Faculty’s Graduate Studies Committee (GSC). If permission is granted, such students will not be able to extend their registration beyond (n+3), where (n) is the minimum period of study for each higher degree, as stated above.

Entry requirements into the MSc programme via the Differently Qualified Applicant (DQA) route:

(DQA includes all students who do not have a BSc degree in Engineering, accredited through the Washington Accord, as specified in the Faculty Standing Orders on Higher Degrees. Please refer to these Standing Orders for the definition(s) of DQA.)

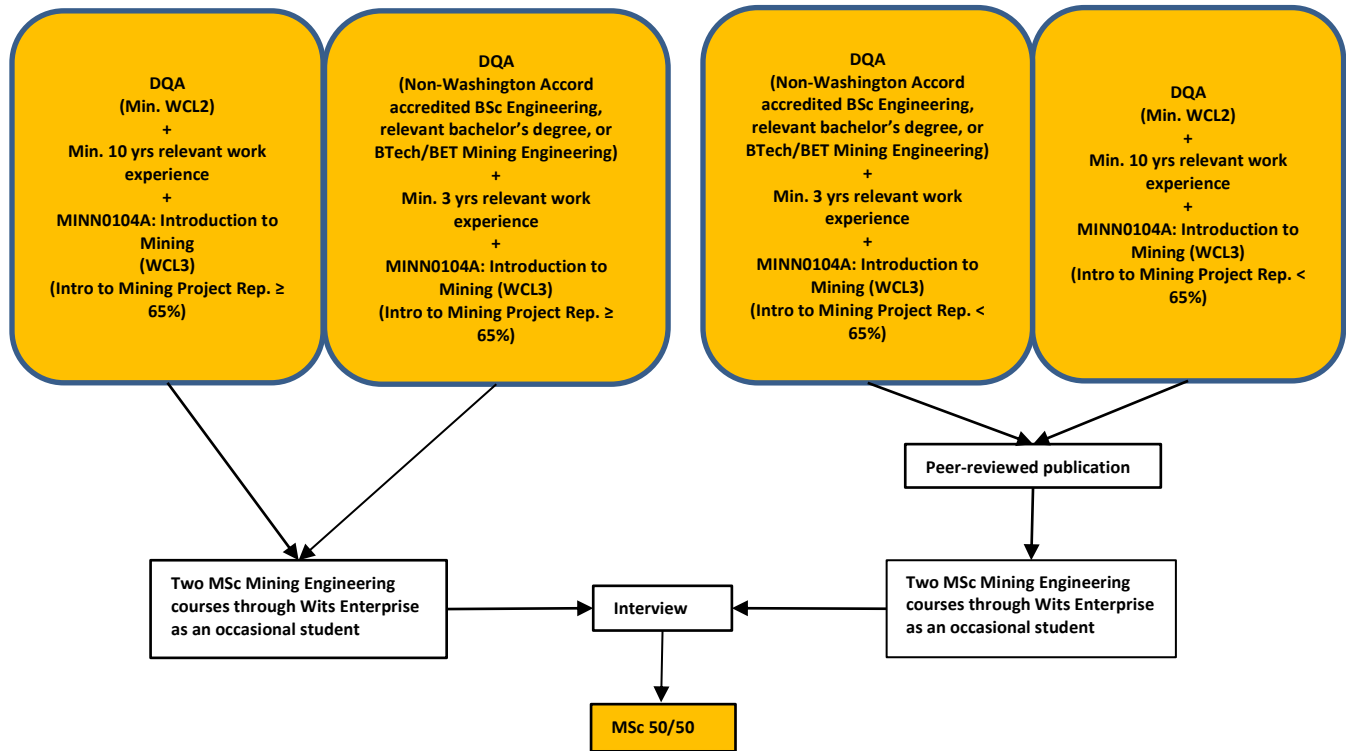


Figure 1. Pathway to MSc (50/50) as Differently Qualified Applicant (DQA)

(Note: Full-time or part-time registered students cannot register at Wits Enterprise as an occasional student for a short course or to repeat a failed course, in the academic year in which the student is already registered.)

Mapping of National Qualifications Framework (NQF) levels to Wits Course Levels (WCL)

NQF level	WCL level	Level descriptor
5	1	Introductory course, pitched at first year undergraduate level, for which matric or an equivalent NQF 4 qualification is usually required.
6	2	Intermediate course, pitched at second year undergraduate level, for which matric or an equivalent NQF 4 qualification is usually required.
7	3	Advanced course, pitched at third year undergraduate level, for which matric or an equivalent NQF 4 qualification is usually required.
8	4	Specialised course, for which an NQF level 7 undergraduate qualification or equivalent is usually required.
9	5	Specialised course, for which an Honours Degree or another NQF level 8 equivalent qualification is usually required.
10	6	Highly specialised course, for which a Master's Degree or another NQF level 9 equivalent qualification is usually required.

Entry requirements into the MSc programme with a Washington Accord accredited BSc Engineering Degree, or a non-mining engineering Master's degree (DQA Masters):

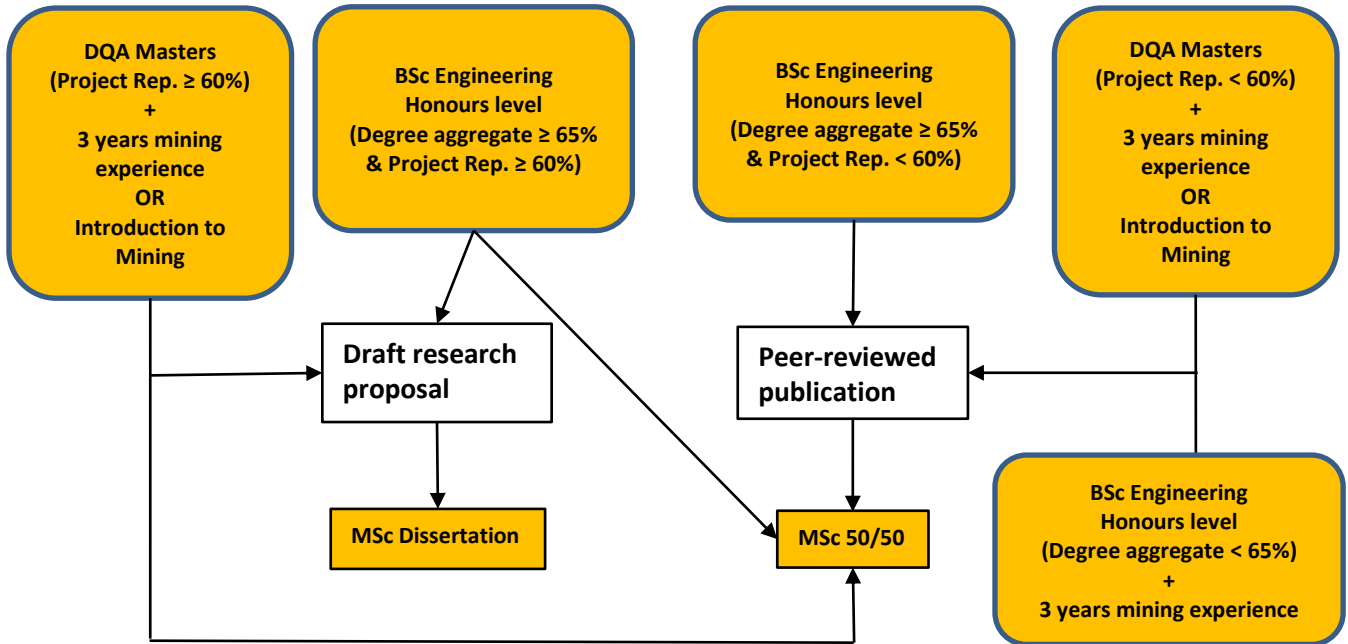


Figure 2. Pathway to MSc 50/50 or MSc Dissertation with BSc Mining Engineering Honours Level or a non-mining engineering Masters degree

(Note: Full-time or part-time registered students cannot register at Wits Enterprise as an occasional student for a short course or to repeat a failed course, in the academic year in which the student is already registered.)

Entry requirements into the PhD programme with an MSc degree in Engineering or an MSc in a related field (as specified in Faculty Rules & Syllabuses as well as in Faculty Standing Orders):

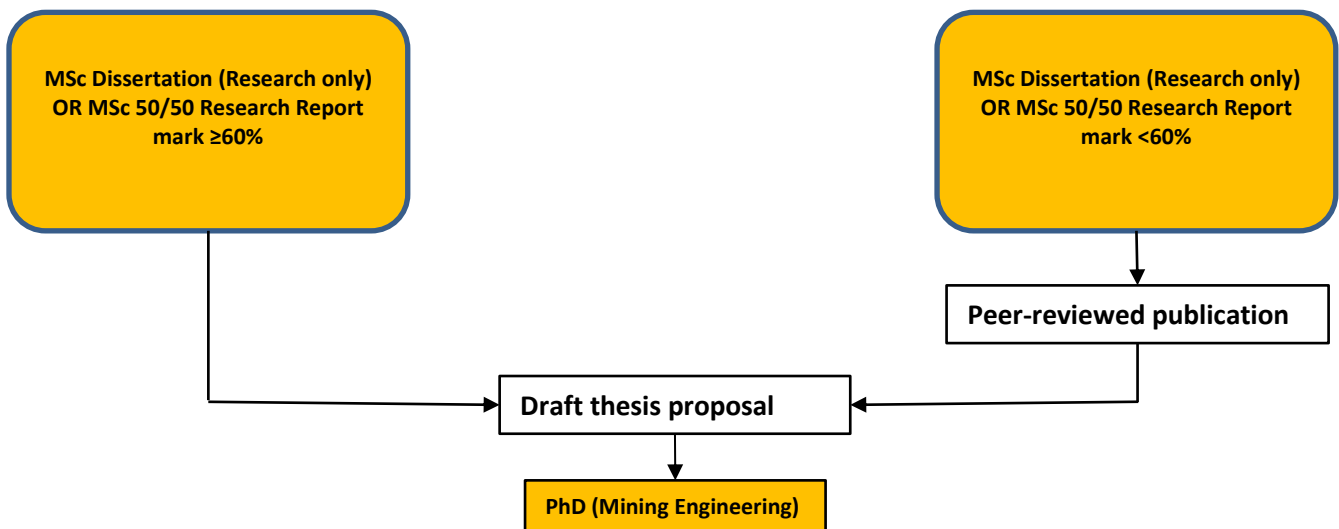


Figure 3. Pathway to PhD (Mining Engineering) with MSc Dissertation or MSc 50/50

Applicants with a non-engineering master's degree may be required to first enrol for an MSc in mining engineering before they can proceed to PhD in mining engineering.

Dual registration

Dual registration is not permitted unless applied for and approved by the Faculty. Dual registration is when a student is registered for more than one programme at Wits or registered at Wits and at another tertiary institution.

Applications

All applications must be submitted to the Student Enrolment Centre (SEnC) – PG Unit via: (<http://www.wits.ac.za/postgraduate/>). On completion of the application, SEnC forwards applications to the Faculty for review, which subsequently forwards the applications to the School for recommendations.

Master of Science in Engineering – MSc (Eng) 50/50 applicants can apply twice a year (January and July intakes). **Master of Science in Engineering – MSc (Eng) by Dissertation only** can apply 4 times a year (January, April, July and September). Interviews are required for DQA as part of the selection process.

Doctor of Philosophy – Students applying for the PhD program can apply 4 times a year (January, April, July and September).

DQA – each application is evaluated on its own merit and applicants may be required to:

- Show evidence of the required years of relevant mining industry experience.
- Provide evidence of prior learning at WCL2, for example the 2-year Advanced Mineral Resource Management short course or Advanced Mine Planning short course (<http://wits-enterprise.co.za/short-courses/all>) and then successfully complete the 2-week Introduction to Mining Engineering Topics course before being considered for the MSc programme.
- First successfully complete the 2-week Introduction to Mining Engineering Topics short course (<http://wits-enterprise.co.za/short-courses/all>)
- Show evidence of an acceptable peer-reviewed journal or conference paper.

Applicants who are offered a seat and fail to register in the admit term, will forfeit the seat and must re-apply for re-admission.

General

- Applications by students with foreign qualifications must also be accompanied by a SAQA certificate.
- MSc. Eng. 50/50 are offered on a block-release schedule normally over a period of either one or two consecutive weeks. All exams (written two weeks after the completion of the module) are written at the School of Mining Engineering. A project assignment submission is usually required four weeks after a course. To comply with SSOASL, additional assessments and their due dates will be communicated by the course coordinator through the course outline.
- MSc. Eng. 50/50 candidates must pass every course, including the Research Report, at the first attempt, provided that, in circumstances considered by the Senate to be exceptional, a candidate may be permitted to repeat one course only or to substitute another course in lieu of the course that s/he failed and the Senate may permit a candidate who has submitted a Research Report that is not satisfactory to revise the report subject to such conditions as the Senate may apply in her/his case.
- It is the duty of the student to make contact with their Supervisor(s) regarding their research, as students are expected to take responsibility for their work.
- PhD students first registered as of 2014 are required to have published a paper out of the PhD research work or provide proof of acceptance for publication, in a DHET recognised peer-reviewed journal. This evidence is required before submitting their thesis for examination. Evidence of a published peer-reviewed paper in a recognised journal adds weight to the quality of the thesis.
- Registration is renewable annually, including associated registration and tuition fees.
- Registration can be put into abeyance only once, for valid reasons but cannot exceed two years for the complete period of registration. In addition, once a registration is put into abeyance, changes may not be made to this decision. No fees are payable, and no supervision is rendered during the period of abeyance and no other services from the University will be rendered during this period. To qualify for abeyance, registration is initially required before applying for the abeyance, and it must be done before May of each academic year.