

Processes for Postgraduate Programmes

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1 Introduction

This document should be read as setting the minimum standards for processes relating to Master's- (research and structured) and PhD programmes in the Faculty of Engineering; and serves as an addition to the relevant sections in the Stellenbosch University Calendar Part 1 (General) and Part 11 (Engineering) respectively. Departments may add procedures, and require additional documentation, unique to their departments. The Postgraduate Coordinator of the department is responsible for ensuring that all staff are informed of any additions, and that all supporting documents are updated and available.

It should be understood that this document cannot make provision for all possible special circumstances. For deviations from the procedures in this document, applications may be made to the Vice-Dean (Research & Industry Liaison), via the Departmental Management Committee, for approval by the Dean and Vice-Deans.

In cases of degree programmes offered by the Institute for Biomedical Engineering (IBE), the Departmental Chair is replaced by the IBE Director, the Departmental Management Committee by the IBE Management Committee, and all instances of 'department' by 'institute'.

In cases of joint degrees, special procedures are followed for registration and examination. In all cases, the Postgraduate Office should be consulted.

2 Definitions and General Requirements

2.1 Academic Structure

2.1.1 Programmes

The postgraduate qualifications in the Faculty of Engineering are classified in terms of programmes. Each programme offers only one degree. Programmes include the Postgraduate Diploma (PGDip), structured and full research Master's degrees (MEng(Structured), MEng(Research), MEngSc(Structured), MEngSc(Research)) and doctoral degrees (PhD and DEng).

2.1.2 Academic Packages

Each programme is sub-divided into several academic packages, to allow for specialist requirements.

2.1.3 Modules

Each package consists of a selection of modules, which can be either course- or research-based, or a combination.

2.2 Management

2.2.1 Postgraduate Coordinator

The Postgraduate Coordinator (PC) is a senior staff member, on at least the level of an Associate Professor, who has significant experience in supervising research students. The PC carries overall responsibility for all postgraduate activities in the department and is a member of the Faculty Programme Committee. Each department only has one PC, who is appointed by the Departmental Chair for a period of up to five years and may be re-appointed. In the case of the IBE, the Director also serves as the PC. It should be understood that the PC can, with approval from the Departmental Chair, delegate some responsibilities to other staff members. In cases of conflicts of interest (including the case when the PC is a supervisor or internal examiner of a student), this is mandatory, and the Departmental Chair must appoint a suitable replacement.

2.2.2 Academic Coordinator

Every academic package of a postgraduate programme will be managed by an Academic Coordinator (AC), who is appointed by the Departmental Chair. The AC is appointed for a period of up to five years and may be re-appointed. The AC must be a staff member of the home department offering the academic package. An AC can manage multiple academic packages, in various programmes, but departments should consider appointing dedicated AC's for academic packages with large student numbers. The PC can also act as the AC for some or all of the academic packages in a department. The AC may delegate some responsibilities with the approval of the Departmental Chair, but remains ultimately responsible for the academic package as a whole.

The AC is responsible for -

- The overall management of the academic package.
- The quality control of the academic package.
- Managing the overall marks of the academic package.
- Managing the modules included in the academic package, including:
 - Ensuring that all modules have Module Coordinators.
 - Establishing a schedule for the course-based modules.
 - Ensuring that the applicable assessment procedures are carried out for the module.

2.2.3 Module Coordinator

- Each module in the Faculty will be managed by a Module Coordinator (MC), who is appointed annually by the Departmental Chair of the home department of the module, and who will report to the AC's of the academic packages of which the module forms part, as well as to the Departmental Chair of the home department. The MC must be a staff member of the home department. The PC of the home department, or an AC of an academic package of which the module forms part, can act as the MC.
- MC's of coursework modules are responsible for -
 - Planning of the module.
 - Ensuring high-quality and knowledgeable presenters (which may be only themselves, or include themselves).
 - Managing the evaluation and marks of the module.
- MC's of Research Thesis or Dissertation Modules (for MEng/MEngSc(Research) and PhD) are responsible for -
 - Ensuring that all students have supervisors and projects.
 - Interfacing with supervisors to ensure the smooth running of the projects.
- MC's of Research Assignment modules are responsible for -
 - Finding supervisors and projects for all students in the module.
 - Assigning students to projects.
 - Proposing examiners for each student to the AC.
 - Initiating and managing the evaluation of the Research Assignments.
 - Managing the marks of the Research Assignment module.

2.3 Supervisor

- Every student doing a Research Assignment, thesis, or dissertation, is assigned a supervisor or multiple supervisors.

- The supervisor is responsible for ensuring that the Intellectual Property (IP) aspects of the project are discussed and clarified, before the project starts. For structured degrees it is not generally envisaged that the Research Assignment should generate IP. However, in cases where a funding institution is involved, and concerned over the ownership of possible background or new IP, two options are suggested:
 - All parties agree upfront that the details of the project will be made available to the general public, in which case no IP will exist. This can take the form of a conference or journal publication, or an in-house workshop or colloquium.
 - A research contract is drawn up before the project starts, such contract specifying IP ownership. The mechanism of an IP-margin (a percentage of the full-cost of a project, added to the cost, which then grants the funder full IP ownership upfront) is advised.
- The supervisor is responsible for ensuring that any Ethical Clearance aspects of the project are discussed and clarified, before the project starts. For Research Assignments, which must be completed in short timescales, students are advised to make use of data which does not require ethical clearance (such as simulated responses to questionnaires, data in the public domain, etc.) if possible.
- The supervisor is responsible for ensuring that any Non-Disclosure Agreements (NDAs) which may be required by any party, are discussed and clarified, before the project starts.

2.3.1 Research Assignment Supervisor (Structured Programmes)

- Each Research Assignment must have one supervisor, who is proposed by the MC, via the AC to the Departmental Management Committee for approval and appointment. Supervisors of Research Assignments are not approved by the Faculty Committee or Faculty Board.
- The MC of the Research Assignment module acts as provisional supervisor of all students in the specific structured academic package, from the date of registration, until a final supervisor is appointed.
- Supervisors of Research Assignments need not be permanent staff members of the home department, faculty, or the University. In such a case, the MC carries the administrative responsibility for that assignment. The MC can fulfil this role for multiple students.
- The AC and MC can be appointed as supervisors.
- The supervisor must hold an appropriate Master's degree or higher.
- Changes to supervisors can be made by the AC, on approval of the Departmental Management Committee. Such changes need not be reported to the Faculty Committee or Faculty Board.
- Supervisors of Research Assignments may be rewarded as follows:
 - For staff members of the home department of the structured programme, the preferred system of reward is for the home department to allocate at least 25 supervision hours on the departmental workload-model, for each supervisor of each Research Assignment. If approved by the chair of the department, however, the system for staff members outside the home department may also be followed.
 - For staff members outside the home department of the structured programme, an amount of R25,000 can be made available by the home department to such a staff member to act as supervisor, following the standard system of remuneration for consulting work. The amount can either be paid out as additional remuneration or be used for research expenses, such as academic travel, conference registration fees, etc. The work will be considered as part of the annual 400h consultation work allowance.

- For supervisors who are not employed otherwise by Stellenbosch University (SU), a system similar to the remuneration of external examiners can be used, allocating an amount of R25,000 for each supervisor of each Research Assignment.
- Internal and external supervisors may elect to perform the work without remuneration or formal reward.
- Funds will only be transferred once the student has submitted the final assignment report for examination.

2.3.2 Research Thesis/Dissertation Supervisor(s)

- At least one of the supervisors of a full research thesis or dissertation should be a permanent academic staff member of the home department.
- The main supervisor should hold an applicable qualification, and have demonstrated the ability to supervise research students, at the following levels:
 - For the MEng/MEngSc(Research), Master's level;
 - For the PhD, PhD level; and
 - For the DEng, PhD level, and have significant experience in supervising PhD students.
- If the main supervisor does not have sufficient expertise in all research areas of the project, one or more expert co-supervisor(s) must be appointed.
- Supervisor(s) are provisionally appointed by the Departmental Management Committee when the application is approved, and loaded on the postgraduate database.
- Formal approval of supervisors is done at the Faculty Committee and Faculty Board
 - For the MEng/MEngSc(Research), at the time of the approval of examiners;
 - For the PhD, at the time of the approval of the Research Proposal; and
 - For the DEng, at the time of the approval of examiners.
- Once loaded on the postgraduate database, changes to supervisor(s) can be made on approval of the Departmental Management Committee, up to the time of formal approval by the Faculty Committee and Faculty Board. After such approval, any further changes must be approved by the Faculty Committee and Faculty Board, using the form *PG14-Change of Supervisor*.

2.3.3 Supervisor's Report

(From Part 1 (General) of the Calendar)

The supervisor(s) may compile a report in order to provide the assessment panel that has to assess the examiners' reports, with insight into the course of the process that culminated in the production of the dissertation/thesis (applicable to research programmes) or the Research Assignment (applicable to master's structured programme). The following aspects could be included in the report:

- The context in which the study was undertaken;
- The methodological setup according to which the study was undertaken and within which the study should be assessed;
- To what extent the student worked independently;
- Problems experienced by the student with regard to the collection of information;
- Any other aspect that could have implications for the final assessment of the dissertation or in the case of master's programmes, have implications for the final assessment of and allocation of a mark for the thesis/Research Assignment, particularly if a pass with distinction is a possibility.

If the supervisor(s) chooses to submit a report, the report must be submitted to the AC together with the Supervisor Declaration, which is required before a dissertation can be sent to examiners. The report is only made available to the examination committee after the examiners have submitted their own reports, and must be considered by the examination committee as part of their deliberations.

2.4 Candidature Panel

- A Candidature Panel is a group of experts who are collectively able to judge the ability of a student to complete a PhD, and whether the proposed work is at PhD level, based on a PhD Proposal written by the student. In some cases, this panel must also be able to judge the viability of a conversion from Master's to PhD programmes.
- The proposed/actual supervisor(s) are part of the Candidature Panel by default.
- In addition to the supervisor(s), the Candidature Panel must include at least two experts and experienced people, of whom at least two hold PhD's, and of whom at least one must be from outside the home department. For conversions from a Master's programme to a PhD programme, it is recommended that at least one of these members be external to the University, with the provision that they hold a PhD in the field.
- The Vice-Dean (Research & Industry Liaison) must approve the proposed Candidature Panel.

2.5 PhD Research Proposal

The Research Proposal is a document, limited to 30 pages in length, developed in consultation with the supervisor(s), which must contain at least the following information:

- A provisional descriptive title.
- An exposition of the literature relevant to the proposed PhD study, as well as a synthesis and assessment of the most important themes found in the literature.
- A clear explanation of the objectives of the study, with particular reference to how it corresponds to already published work and what the expected original contribution of the study will be.
- A description of the research methodology that will achieve the stated objectives.
- A broad time framework for the study, typically in terms of 4 to 10 activities, and a brief description of the main focus of each activity.
- A clear explanation of the infrastructure and equipment (including software, equipment, laboratories, operating costs, etc.) that will be required to complete the study, as well as arrangements that have been made to ensure that the infrastructure will indeed be available.
- A critical self-evaluation of the student's progress to date, if applicable. In the case of a conversion, a discussion of the work that has been completed and what is still required, and a detailed time schedule of work still to be performed.

2.6 PhD Executive Summary

A document, no longer than 600 words, summarising the Research Proposal, and prepared by the student in consultation with the supervisor(s), according to the template *PG07 - PhD Executive Summary Template*. The following information must be contained in the document:

- The title of the research project.
- Name of the student.
- Name of the supervisor(s).
- A brief description, as well as the aims, of the research project.

- The anticipated unique research contribution(s) of the study, including the titles of the envisaged papers.
- A broad time framework for the study, typically in terms of 4 to 10 activities.
- In the case of a conversion, a summary of the work that has been completed and what is still required, and a detailed time schedule of work still to be performed.

2.7 Pre-Requisites for a Conversion from Master's degree to PhD

- Conversions from Master's to PhD programmes are only possible from the MEng (Research) or the MEngSc (Research) programmes.
- A conversion can be considered after no less than one year's registration for the Master's study and not later than during the third year of registration for the Master's study (as per General Calendar).
- At the time of application, the research work should already contain substantial original material, which is publishable. Proof of such originality must include any or all of the following:
 - A peer-reviewed conference or journal paper that has been accepted for publication,
 - A submitted conference or journal paper, which must then be judged as being publishable by the Candidature Panel.
- The work completed at the time of application for the conversion, should be of such a high quality that a substantial part of it can form part of a PhD dissertation.
- The scope of the work should be extendable to the expected levels for a PhD.
- The additional work should be of such a nature that it can be completed within the maximum allowable time for a PhD after a conversion.
- In the event that the student after conversion to the Doctorate does not complete the doctoral degree, no reversion to the Master's degree shall be permitted. A student shall be required to deregister from the Doctorate and apply anew for admission to a Master's degree programme.

2.8 Requirements for the Appointment of Postgraduate Examiners

The following is a list of default conditions for the appointment of examiners. If a proposed examiner does not satisfy one or more of these conditions, a motivation is required.

- An examiner must hold a degree at least at the same level of the one being examined, in an applicable field of study, or must have demonstrated equivalent expertise in the field. A separate motivation is required in the latter case.
- In the case of inter-disciplinary work, the examiners must represent at least two of the disciplines.
- At least one examiner must hold an appointment in the host department, or a closely related academic department at SU.
- The following conditions hold for all examiners:
 - An examiner may have no significant family or personal relation with the student and/or supervisor(s).
 - An examiner may not be a co-supervisor of the student.
 - An examiner may not be a current or recent (within two years) student of the supervisor.
 - An examiner may not have any formal collaboration with the student.
 - There shall be no financial involvement of the examiner, and/or their business unit, in

the research and outcomes of the examination process.

- Examiners are classified as internal or external. External examiners are classified as local or international.
 - An internal examiner must have a current formal affiliation with SU. This includes postdocs, academic staff, Emeritus Professors within three years of retirement, extraordinary appointments, and adjoint appointments.
 - An external examiner:
 - May not have had a formal affiliation with SU for the previous three years.
 - May not have a current formal affiliation with SU, except for Emeritus Professors who have retired more than three years ago.
 - May not currently be involved in formal collaboration, or joint projects, with the supervisor(s).
 - May not have joint authorship with the supervisor(s) of papers within the previous three years.
 - An international examiner:
 - Must have resided outside of South Africa for at least three years.
 - Must primarily be affiliated with a non-South African institution.
- The number of examiners required are:
 - For a Master's research assignment, two internal examiners must be appointed.
 - For a Master's thesis, at least one external and one internal examiner must be appointed.
 - For a PhD, at least two external (of which at least one is international) and one internal examiner must be appointed.
 - The Scopus profile of each external examiner must be provided. In the case where an examiner does not have a Scopus profile, a comprehensive CV should be attached.
 - For a DEng, at least two external examiners (of which at least one international) and one internal examiner must be appointed.
 - All the examiners must have global standing in the specialist field of the dissertation.
 - The Scopus profile of each external examiner must be provided. In the case where an examiner does not have a Scopus profile, a comprehensive CV should be attached.

3 Programmes

3.1 MEng/MEngSc(Structured)

- 3.1.1 The MEng(Structured) and MEngSc(Structured) are postgraduate programmes comprising of 180 credits (1800h) of which 120 credits (1200h) in the form of coursework modules at NQF-level 9, and 60 project-work credits (600h) in the form of a Research Assignment.
- 3.1.2 Structured Master's programmes cannot be converted to PhD programmes.
- 3.1.3 Students who fail any module, including the Research Assignment module, may register again for the same module, or one designated in its place by the AC.
- 3.1.4 **Coursework Modules**
 - 3.1.4.1 Of the coursework modules, three 15-credit modules must be chosen from a list of no

more than five common faculty-wide modules. This list must be reviewed each year by the Programme Committee, at the first Programme Committee meeting of the second semester. A department wishing to propose changes to the list should propose such changes to the Programme Committee, well in advance of this meeting.

- 3.1.4.2 If an academic package needs to replace common modules with package-specific modules, this must be approved by the Programme Committee and Faculty Committee.
- 3.1.4.3 All common modules must be presented as block modules, and the dates of the blocks must be synchronized. The Vice-Dean (Teaching and Quality Assurance) is responsible for the setting of a timetable for the common modules for the upcoming year, and the timetable must be finalized at the first Programme Committee meeting of the second semester.
- 3.1.4.4 In 2023, the common modules are (all 15 credits):
 - Numerical Methods TW 876 (Applied Mathematics)
 - Advanced Topics in Engineering Management 873 (Industrial Engineering)
 - Financial and Economic Management 812 (Civil Engineering)
 - Project Management 873 (Industrial Engineering)
 - Principles of Data Science 874 (Industrial Engineering)
- 3.1.4.5 The creation of new postgraduate coursework modules follows the same procedure as that of undergraduate modules.
- 3.1.4.6 Apart from the common modules, coursework modules may be presented in a wide range of formats, including online and hybrid forms, using semester or block scheduling, and using tests or assignments for evaluation. Multiple lecturers, including the MC, the AC, or experts from outside the University, may present the module content.
- 3.1.4.7 Lectures and contact sessions of a module pinned at NQF-level 8 standard, can be used for a corresponding coursework module at NQF-level 9, in combination with assessments of the same content at NQF-level 9.
- 3.1.4.8 A student may apply for the recognition and award of credits for both internal and external modules completed. The procedures for this are outlined in the policy on *Recognition of Prior Learning and Credit Accumulation and Transfer*.
- 3.1.4.9 Lectures and contact sessions of short courses presented by the Faculty of Engineering at SU, can be used for a corresponding coursework module at NQF-level 9, in combination with assessments of the same content at NQF-level 9. For such modules:
 - The module must be registered as an academic module, and be subject to the standard quality assurance processes for credit bearing modules (including approval of the content and credits, moderation, etc.).
 - The student only pays the academic fees normally applicable to a regular credit bearing module.
 - The permission of the home department of the short course must be obtained.
- 3.1.4.10 The AC may require students to do supplementary, non-credit bearing coursework modules, if their background is insufficient for the academic package. For such modules the following provisions apply:
 - The NQF-level may be lower than NQF-level 9.
 - They must be completed (and passed, if applicable) before the student can commence with the Research Assignment.
 - The AC is responsible for informing the student in writing of the required supplementary modules and associated timelines, before registration.
 - The marks may not influence any other marks awarded to the student during the course of the programme.

3.1.4.11 A module framework must be made available to students for each coursework module, by no later than the start of the module's presentation. The same template used for undergraduate modules is the preferred format for postgraduate modules. In all cases the module framework must at least include the following information:

- The format of presentation.
- The method of assessment and the module-specific particulars of how the final mark will be calculated.
- The due dates for the main assessments.
- Any sub minima that will be applied.
- Which assessments, if any, will be done as group work.
- The extent to which assignments may be only a compilation of published work or, conversely, the student's own work.

3.1.5 Research Assignment

The Research Assignment consists of a single research project, with the following characteristics:

- The scope is significantly smaller than that of a full Master's research project (600h as compared to 1800h).
- The emphasis is on the development of research skills in a student, more than on creating original research itself.
- Producing novel research results is not required.
- It can be carried out in the academic environment, or in industry.
- Assessment is on the basis of a short thesis-type report, typically between 60 and 80 pages for the main body, excluding appendices.
- An oral examination is not required.
- Reports are not published on the SUN archive, but must be submitted to *TurnItIn* for a check on plagiarism.

3.2 MEng/MEngSc(Research)

3.2.1 The MEng(Research) and MEngSc(Research) are postgraduate programmes comprising of 180 project-work credits (1800h) in the form of a research thesis.

3.2.2 While the final mark is only based on the thesis, a student may be required to complete modules for background knowledge. These modules appear on the academic record, and a student needs to pass the modules before the thesis can be submitted to the examiners.

3.2.3 The MEng/MEngSc(Research) programme can be converted to PhD programmes, if several conditions are satisfied.

3.3 PhD

3.3.1 The PhD is a research programme comprising of 240 project-work credits (2400h), in the form of a research dissertation.

3.3.2 The PhD requires a minimum residency of 2 years.

3.4 DEng

3.4.1 The DEng is an advanced postgraduate degree, based on a lifetime's work in a specialized field.

3.4.2 Evolution of the DEng is based on a research overview dissertation, detailing the contribution of the candidate to the specific field.

4 Application and Registration

4.1 General Application Procedure for Master's and PhD Programmes

- 4.1.1 Students apply via the Institutional online application portal, namely SUNStudent, on the SU webpage before the closing date for applications (which is set by each department).
- 4.1.2 Academic packages can require package-specific additional documents which should be submitted during application, such as departmental forms.
- 4.1.3 In research-based academic packages, the department may require that the applicant has been provisionally accepted by a supervisor, at the time of application.
- 4.1.4 Applications are reviewed by the Central Application Office for completeness. In cases where a candidate holds qualifications awarded by a non-South African institution(s), a credential evaluation is processed by the Postgraduate Office to assist environments in the comparability of the qualifications and confirmation of the candidate's eligibility to postgraduate studies at SU.
- 4.1.5 Once marked as reviewed, departments evaluate the applications according to the requirements and procedures of the specific academic package.
- 4.1.6 Departments either issue a provisional or final offer themselves via email communication to the student, or forward the names of accepted students on a continuous basis to the Faculty Administrator, who issues the provisional offer to the student via SUNStudent, and thereafter the final offer following the student's acceptance of the provisional offer. Provisional offers are issued if the student has not yet completed the required minimum qualification. Once proof of the qualification is uploaded, the Faculty Administrator changes the offer status from provisional to final.
- 4.1.7 The student must accept both the provisional and final offers in order to register for the academic programme.
- 4.1.8 The Departmental Postgraduate Officer responsible for the specific academic package forwards the list of modules which the student must enrol for, as well as any other package- or departmental-specific details, to the student.
- 4.1.9 The student registers for the programme, following standard procedures. Postgraduate students can only register in the first semester of a year. In special cases, a student may register as a special student in the second semester.
- 4.1.10 Once registered, the student signs a Memorandum of Understanding (MoU).
- 4.1.11 For students in structured programmes, the MC of the Research Assignment module is responsible for identifying a topic for the Research Assignment of each student, and proposes a supervisor for each student via the AC, to the Departmental Management Committee for approval and appointment.

4.2 PhD Specific Registration Procedures

The faculty offers two paths for PhD registration. These are:

- Registration after a Master's degree without a Research Proposal.
- Upgrading from an MEng/MEngSc (Research).

4.2.1 Registration after a Master's degree without a Research Proposal

- 4.2.1.1 Both full-time and part-time students can register for a PhD without a Research Proposal after approval by the Departmental Management Committee. Part-time students may be required to submit a full Research Proposal before being allowed to register.
- 4.2.1.2 Once registered, the student must submit a full Research Proposal, together with an

Executive Summary using the form *PG07-PhD Executive Summary Template*, to the supervisor, by the first day of the second semester in their first year of registration.

- 4.2.1.3 Once the supervisor(s) is satisfied with the Research Proposal and Executive Summary, the student submits both to the PC, who tables it at the Departmental Management Committee.
- 4.2.1.4 The Departmental Management Committee proposes a Candidature Panel to the Vice-Dean (Research & Industry Liaison), for approval. The supervisor may be requested to identify possible panel members.
- 4.2.1.5 After approval of the Candidature Panel, the PC distributes the Research Proposal and Executive Summary to each member of the Candidature Panel, who each completes the *PG08-PhD Proposal Reviewer Report* form and returns it to the PC. A reviewer may also provide a separate written report with comments if they wish, or may provide comments directly on the proposal documents.
- 4.2.1.6 In the case of a unanimous approval of the documents, the PC completes the form *PG09-PhD Proposal Outcome Report*.
- 4.2.1.7 In the case of any of the panel members requiring a re-submission of any of the documents, or indicating that the student should not be allowed to continue with the PhD, the student is allowed a single opportunity to improve the documents, incorporating the comments of all the panel members, with all changes clearly indicated. The improved documents are sent again to all the panel members. All panel members are asked to re-evaluate the documents and respond in writing (email acceptable). If unanimously approved, the PC completes the form *PG09-PhD Proposal Outcome Report*. All correspondence with the panel is kept on archive in the Department.
- 4.2.1.8 If, after a second submission, any of the panel members recommend that the student not be allowed to continue with the PhD, or non-approval of the Research Proposal and Executive Summary, a mandatory oral is scheduled. The oral is attended by the full Candidature Panel and chaired by the PC. On completion of the oral, the PC completes the form *PG09-PhD Proposal Outcome Report*.
- 4.2.1.9 On completion of the process, the following forms serve at the Departmental Management Committee:
 - The final Research Proposal,
 - The final Executive Summary,
 - The Candidature Panel's individual PhD Proposal Reviewer Report forms,
 - All correspondence with the panel, and
 - The Proposal Outcome Report.
- 4.2.1.10 If no consensus could be reached at the oral, the Departmental Management Committee appoints an independent external reviewer with approval by the Vice-Dean (Research and Industry Liaison). The reviewer reviews the whole process and advises on a final outcome.
- 4.2.1.11 The Departmental Management Committee recommends acceptance or rejection of the Research Proposal and/or Executive Summary. The recommendation form *PG09-PhD Proposal Outcome Report* is signed by the Departmental Chair. The following forms are submitted to the Faculty Administrator for inclusion in the agenda of the Faculty Committee:
 - The final Executive Summary,

- The Proposal Outcome Report,
- Only in the case of a rejection of the proposal, all individual panel evaluation forms and all correspondence with panel members.

4.2.1.12 The full process must be completed in time for the closing of the agenda of the last Faculty Committee meeting of the first year of registration. Late submissions will only be considered in extraordinary circumstances at the Faculty Committee meeting following the submission, and only if motivated by the supervisor, and supported by the Departmental Management Committee.

4.2.1.13 The application serves at the Faculty Committee for approval. The Faculty Committee may request small changes to the Executive Summary, such changes to be made to the satisfaction of the Vice-Dean (Research & Industry Liaison) before the subsequent Faculty Board meeting.

4.2.1.14 After approval by the Faculty Board, the provisional title of the dissertation is added to the student's existing academic profile. The student can only register for the second academic year after approval by the Faculty Board.

4.2.2 **Upgrading from an MEng/MEngSc (Research)**

4.2.2.1 The conversion process is initiated by the main supervisor. A student cannot apply for a conversion.

4.2.2.2 The supervisor(s) may realize during the course of the student's Master's studies that the research exhibits such a degree of originality that the registration may potentially be converted to doctoral studies.

4.2.2.3 The supervisor discusses the process, advantages, and disadvantages of the conversion process with the student.

4.2.2.4 If the student indicates interest, the supervisor(s) motivates, in writing, a conversion to the AC, addressing the pre-requisites for a conversion.

4.2.2.5 The supervisor(s) requests the student to prepare a formal Research Proposal, and an Executive Summary using the form *PG07-PhD Executive Summary Template*. For a conversion, the proposal must clearly discuss how the completed work fits into the proposal, and the proposed additional work still to be completed. If a paper has not yet been published, a copy of a submitted paper must be attached to the Research Proposal, with proof of acceptance or submission.

4.2.2.6 Once the supervisor(s) is satisfied with the Research Proposal and Executive Summary, both are submitted to the Departmental Management Committee, together with a full academic record of the student, and the motivation letter of the supervisor(s). The student confirms that they have full knowledge of the implications of a conversion, by signing the Executive Summary. The last date in the year for this is 1 September.

4.2.2.7 Late submissions will only be considered in extraordinary circumstances, and only with motivation by the supervisor and support by the Departmental Management Committee. Students who miss this deadline may still be considered for a conversion, but only at the second Faculty Committee meeting of the following year. Such a student will therefore have to re-register as a Master's student at the start of the following year, with the registration changed to PhD after approval at the second Faculty Board meeting of the year.

4.2.2.8 The Departmental Management Committee proposes a Candidature Panel to the Vice-

Dean (Research & Industry Liaison), for approval. The supervisor can be requested to identify possible panel members. For a conversion, it is required to include an expert in the field, who is external to SU.

- 4.2.2.9 After approval of the panel, the PC distributes the conversion motivation, Research Proposal and Executive Summary to each member of the Candidature Panel, who each completes the form *PG08-PhD Proposal Reviewer Report*, and returns it to the PC. A reviewer may also provide a separate written report with comments if they wish, or may provide comments directly on the proposal documents. Panel members should be allowed reasonable time to perform proper evaluations.
- 4.2.2.10 In the case of any of the panel members requiring a re-submission of the documents, or recommending that the conversion not be allowed, the student is allowed a single opportunity to improve the documents, incorporating the comments of all the panel members, with all changes clearly indicated. The improved documents are again sent to all the panel members.
- 4.2.2.11 A mandatory oral evaluation is scheduled by the PC. The oral is attended by the full Candidature Panel and chaired by the PC. On completion of the oral, the PC completes the form *PG09-PhD Proposal Outcome Report*.
- 4.2.2.12 If no consensus could be reached at the oral, the matter is referred to the Departmental Management Committee for a final decision.
- 4.2.2.13 On completion of the process, the following forms serve at the Departmental Management Committee:
- The final Research Proposal;
 - The final Executive Summary;
 - The Candidature Panel's individual PhD Proposal Reviewer Report forms;
 - All correspondence with the panel; and
 - The Proposal Outcome Report.
- 4.2.2.14 The Departmental Management Committee recommends acceptance or rejection of the conversion, the Research Proposal and/or Executive Summary. The Committee may request the opinion of an additional external panel member if the panel members are not unanimous. The recommendation form *PG09-PhD Proposal Outcome Report* is completed by the Departmental Chair. The following forms are submitted to the Faculty Administrator for inclusion in the agenda of the Faculty Committee:
- The final Executive Summary;
 - The Proposal Outcome Report; and
 - Only in the case of a rejection of the proposal or conversion, all individual panel evaluation forms, and all correspondence with panel members.
- 4.2.2.15 The application serves at the Faculty Committee for approval. The Faculty Committee may request small changes to the Executive Summary, such changes to be made to the satisfaction of the Vice-Dean (Research & Industry Liaison) before the subsequent Faculty Board meeting.
- 4.2.2.16 After approval by the Faculty Board, the provisional title of the dissertation is added to the student's existing academic record.
- 4.2.2.17 If the conversion is not recommended, the student continues with their Master's studies.
- 4.2.2.18 The full process must be completed in time for the closing of the agenda of the last

Faculty Committee meeting of the year, for the student to register for a PhD at the start of the following year.

4.3 DEng Specific Registration Procedures

- 4.3.1 Only holders of a PhD, who, over the course of a career have made a significant contribution to the global body of knowledge in an engineering discipline, can apply to register for the DEng.
- 4.3.2 There are no specific forms for DEng registration.
- 4.3.3 The candidate approaches the Departmental Chair, and discusses the possibility of registering for the DEng.
- 4.3.4 If the candidate has the correct profile (typically at the level of a B-rated researcher or higher) the Departmental Chair motivates the registration of the candidate to the Faculty Committee. Such a motivation needs to include -
- the proposed supervisor (who must be a senior, permanent, staff member at the level of Associate Professor or higher, who has graduated a pool of PhD students);
 - the background of the candidate;
 - a recent CV;
 - a Scopus profile; and
 - a description of the candidate's contribution to a field, and the impact on the field.
- 4.3.5 The Faculty Committee approves the registration.
- 4.3.6 The department assists the candidate with the formal registration on the SUNStudent system, with assistance from the Registrar's Office if required.

4.4 Registration after Maximum Allowed Time

- 4.4.1 Master's and doctoral students who do not complete their programmes within the maximum permissible period of registration, are automatically admitted for a final concessional year. In September of the final concessional year, they are informed via email by the Faculty Administrator that they will not be able to automatically register for the next academic year. The maximum permissible time frames are listed in the Calendar Part 11.
- 4.4.2 The list of students in their final concessional year is sent to the relevant department's PCs, Departmental Chairs, and the Vice-Dean (Research & Industry Liaison). The PCs inform the supervisors.
- 4.4.3 Students who want to continue their programmes in the year(s) following the final concessional year, are informed in the same notification that they must formally apply for re-admission to the Office of the PC by 1 December of their final concessional year, for consideration by the Departmental Management Committee. The re-admission application should be in writing, using the form *PG12 - M and PhD Re-admission Application*, and in consultation with the supervisor(s). The application should include the following:
- The reasons why the programme was not completed in the final concessional year;
 - Current state of completion of the programme; and
 - A schedule in terms of quarterly goals for the year, which will ensure completion of the examination process by the end of the year.
- 4.4.4 The PC requests a confidential recommendation by the supervisor(s).
- 4.4.5 The Departmental Management Committee approves or declines the application, and sends the recommendation onto the Faculty Administrator, together with the completed form *PG12 - M and PhD Re-admission Application*, for the first Faculty Committee meeting of the year.
- 4.4.6 If an application for re-admission is not received by 1 December, the student is not allowed to register again. In such a case, the student can in special cases still apply for re-admission before

31 March. A strong motivation by the supervisor is required, and this application will only be considered at the second Faculty Committee meeting of the year in May. The student will therefore be unregistered for six months.

- 4.4.7 At the end of each term (i.e., the last day of March, June, and September), the student submits a two page/500-word progress report to the PC, who submits it to the Management Committee.
- 4.4.8 It remains the responsibility of the student to identify a lack of progress in terms of the schedule, and to inform the AC in the case of a lack of progress.
- 4.4.9 In the case of satisfactory progress, the report and evaluations are filed. In the case of non-satisfactory progress, the Management Committee informs the student in writing that the progress was non-satisfactory. The Management Committee may also decide on other measures, including terminating or limiting support for the project.
- 4.4.10 The student can only be considered for re-admission in the second year following the final concessional year if an examination-ready thesis/dissertation is submitted to the supervisor by 15 January of that year.

4.5 Interruption of Studies

- 4.5.1 Students can apply for an interruption of studies, as described in the Calendar Part 1.
- 4.5.2 Interruption of studies can only be considered for students who applied before the end of their final concessional year. Students must apply directly with the faculty administrator on or before 30 April of the year concerned. Applications received after 30 April of the year concerned will be considered on merit, provided that the student has not registered for the year.
- 4.5.3 Interruption of studies can only be considered for students who have made sufficient progress in the previous years.

5 Assessment Procedures

5.1 Format of Research Assignments, Master's Theses and Dissertations.

- 5.1.1 The format of a Research Assignment is that of a full project report.
- 5.1.2 The format of a Master's thesis is that of a standard monograph thesis.
- 5.1.3 The standard format of a PhD dissertation is that of a monograph thesis, with a clear, logical, and comprehensive description of the work, including an extensive literature study, and a clear presentation of the original contributions. However, the Faculty also accepts publication-based dissertations, in which any or all of the content chapters are replaced by journal or conference paper(s) that have either been published, submitted, or are in a final draft form. The following elements are required in the document:
 - A comprehensive introduction to the dissertation.
 - Expanded literature study(s), and clear presentations of the original contributions.
 - For chapters where a paper replaces the standard format, the chapter must be introduced by a short discussion of the context of the paper within the dissertation, the publication status of the paper, and the specific contributions of the student in the case of multiple authors.
 - In the case of a short conference paper replacing a content chapter, students are encouraged to use an extended version of the paper.
 - A conclusion that includes all the work in context with respect to the whole.
 - The dissertation as a whole should form a logical and coherent unit.

5.1.4 The format of a DEng dissertation is that of an overview of the candidate's work over the course of many years, with a self-evaluation of impact. The DEng dissertation differs substantially from the PhD, in that it is a review, and only references works by the candidate.

5.2 Submission Process for Research Assignments, Master's Theses and Dissertations

5.2.1 The submission process for all research reports (Research Assignments, theses, and dissertations) follows the same steps.

5.2.2 In addition to the research report, the following additional documentation is required. In the case of a research report being classified as confidential, this requirement is waived.

- For a Research Assignment, no other submission.
- For a thesis, proof of a published or submitted journal paper, or if not published, a draft journal paper.
- For a dissertation, proof of at least one published or submitted journal paper.

5.2.3 It is the responsibility of the supervisor(s) to verify that the content and editorial care of the research report is of acceptable quality.

5.2.4 A plagiarism statement, provided as the form *PG02-Plagiarism Declaration*, must be signed by the student, and must appear directly after the title page in the research report.

5.2.5 A supervisor may request a research report to be treated as confidential, before the it is submitted for the first time on *Turnitin*. This request should be motivated to the MC, and approved at the Departmental Management Committee, the Faculty Committee, and the Faculty Board, before the document is submitted for the first time on *Turnitin*.

5.2.6 The student submits the research report to the link designated by the department for *Turnitin*. In the case of a research report being classified as confidential, the document is submitted to *Turnitin* by means of a separate link. This link is again designated by the department and does not make a research report visible on *Turnitin* for other users.

5.2.7 After having received the *Turnitin* report, and before the research report can be submitted, the supervisor(s) and the student should try to reach consensus that the similarity index is acceptable. If plagiarism is detected, the formal procedures for plagiarism cases in the faculty is followed, and the research report is not sent for examination.

5.2.8 In the case of research programmes, the supervisor(s) gives written permission for the research report to be submitted for examination, using the form *PG03-Confidential Declaration by supervisor*.

5.2.9 If the supervisor(s) does not give permission for the research report to be submitted, the student can insist that the research report be examined. In such a case it is required that the supervisor(s) submits a Supervisor's Report (see definition above, and the Postgraduate Qualifications chapter of the Calendar Part 1) by the due date for submission of the examiners' evaluation reports. The report should include the supervisor(s)' reasons for not approving the submission of the research report. The report then forms part of the final examination process.

5.2.10 Irrespective of the permission by the supervisor(s), the Departmental Management Committee can decide not to send a research report out for examination, e.g., in cases where supplementary modules have not been completed, plagiarism is found, the research report does not conform to departmental formatting or editorial standards, etc.

5.2.11 In the case where the supervisor(s) does support the submission of the research report, they can still elect to submit a Supervisor's Report by the due date for submission of the examiners' evaluation reports, to the designated MC. Such a report ensures that the supervisor(s) has the right to appeal if there are serious objections to the official results.

5.2.12 The departmental Postgraduate Officer, who is responsible for distributing the documents, sends

the following documents to the examiners:

- The research report as submitted on *Turnitin*.
- A cover letter that identifies the student and indicates the deadline for submission of the evaluation report. This letter must include a statement to the effect that by accepting the research report, the examiner agrees to treat the research report, and any information in it, as confidential, up to the time that such information has been published in the public domain.
- The correct *Examiner Report* form.
- In the case of a research report classified as confidential, the AC must ensure that a signed Non-Disclosure Agreement (NDA) or Confidentiality Agreement is on record for each examiner, before the research report.

- 5.2.13 In the case of research programmes, the supervisor's written permission for the research report to be submitted for examination (form *PG03-Confidential Declaration by supervisor*), and any reports by the supervisor(s), are not sent to the examiners. For structured programmes, form *PG03-Confidential Declaration by supervisor* is not required and the MC is responsible for checking the *Turnitin* report.
- 5.2.14 The departmental Postgraduate Officer verifies the receipt of each copy of the research report within a week of sending it out.
- 5.2.15 The departmental Postgraduate Officer who is responsible for receiving the evaluation reports, ensures that all reports are received by the due date. Timely reminder messages to the examiners may sometimes be necessary.
- 5.2.16 The MC and supervisor(s) are notified as each evaluation report is received. Once all the reports have been received, the MC initiates the examination process.
- 5.2.17 As the evaluation reports are received, the supervisor(s) is given full access and may, if the examiner indicated it as such on the report form, share the feedback, and the identity of the examiner, with the student. However, the outcome, as recommended by the examiners, may not be shared with the student.
- 5.2.18 Once all the evaluation reports have been received, the student, in consultation with the supervisor(s), may respond in writing to the comments of all the examiners, in one document. This document must be sent to all the examiners by the PC, before the oral, with reasonable time allowed for the examiners to consider the response before the oral takes place. No changes are made to the research report at this stage.
- 5.2.19 The supervisor(s) may not discuss the merits of the student or the research report with any of the examiners, before the examination is finalised.
- 5.2.20 The student may not know the identity of the examiners until after the examiner's reports have been received.
- 5.2.21 Up to the time of completion of the examination process, the student may only discuss the work with an examiner during the oral examination.

5.3 Oral Examinations

- 5.3.1 Oral examinations are mandatory for PhD programmes. For other postgraduate programmes, oral examinations are held if the MC, AC, any examiner, the supervisor(s), or the Departmental Management Committee requests one.
- 5.3.2 For an oral examination, an Examination Commission is established by the MC.
- 5.3.3 The Examination Commission consists of a chairperson and all the examiners, and may meet in person or via an online platform.

- 5.3.4 If an examiner cannot be present, they may provide the chairperson with a list of questions, and the chairperson will in turn present these questions to the student.
- 5.3.5 At the time of the oral, the chairperson is in possession of all the examiners' evaluation reports and recommendations.
- 5.3.6 The student has the opportunity to deliver a presentation (typically 20 to 30 minutes) on their research. Such a presentation is mandatory if the work has not been presented publicly at this stage. This presentation is open to the public and general questions may be posed to the student at the end of their presentation. If a public presentation had taken place at a prior time, or if the research report was classified as confidential, the MC may waive this requirement.
- 5.3.7 In the case of the presentation and the examination process following directly after one another, the general public is excused after the presentation, and only the members of the Examination Commission, the supervisor(s), and the student remain for the formal examination process.
- 5.3.8 The chairperson facilitates the student's examination by the examiners. The supervisor(s) does not participate in the question session, but may be present.
- 5.3.9 At the end of the question session, the student is excused, the supervisor(s) is given the opportunity to put the student's research into context with regards to aspects such as workload, autonomy, unique contributions, etc. and their perception of the quality of the work. The report of the supervisor(s), if submitted, is now presented by the chairperson and is considered by the Examination Commission.
- 5.3.10 The supervisor(s) is then excused, and the chairperson attempts to reach consensus with regards to the final outcome and the mark awarded.
- 5.3.11 In cases where there is no initial consensus regarding the final outcome, all of the examiners must be consulted in determining the outcome, even if an examiner was not present at the oral examination.
- 5.3.12 Once consensus is reached, the outcome is recorded on the applicable Examination Commission Form and signed by the members present. If no consensus can be achieved, the appropriate process for the specific type of programme is initiated.

5.4 Master's Structured Programmes

5.4.1 Coursework Modules

- 5.4.1.1 All coursework modules at postgraduate level are classified as exit-level modules, and must satisfy all the quality control measures of SU and the Faculty of Engineering applicable to such modules, including both internal and external moderation.
- 5.4.1.2 The AC serves by default as the internal moderator, but can propose a different internal moderator for a specific module via the normal channels, for appointment by the Faculty Board.
- 5.4.1.3 MCs and external moderators of coursework modules are proposed annually, before the start of such modules, by the AC of each academic package to the Departmental Management Committee, who, after approval, submits the names to the Faculty Committee and Faculty Board for appointment.
- 5.4.1.4 In the case of postgraduate academic packages or programmes with several specialist modules that have only a few registered students in every coursework module, a single external moderator may moderate a related group of modules (e.g., modules that fall within a particular knowledge area) as a whole, and not every module separately. In such cases, the external moderator need not moderate the assessment assignments prior to the assessments.

- 5.4.1.5 The detailed assessment rules for coursework modules are listed in the Faculty of Engineering Assessment Rules.
- 5.4.1.6 The dates for the finalization of marks for all coursework modules are the same as for undergraduate modules.
- 5.4.1.7 Coursework modules are assessed by the MC and/or presenters, and moderated internally and externally, as described in the Faculty of Engineering Assessment Rules.
- 5.4.1.8 Final marks (after moderation) for each module are submitted by the MC to the AC, who is responsible for having the marks uploaded.

5.4.2 **Research Assignment Module**

- 5.4.2.1 The MC of each Research Assignment module is responsible for all actions connected to the module, including the examination process, and archiving of all applicable documents.
- 5.4.2.2 If an MC has a conflict of interest regarding a specific Research Assignment (e.g., being a supervisor or examiner), their responsibilities regarding that specific Research Assignment are transferred to the AC or PC.
- 5.4.2.3 The AC of each academic package serves by default as the internal moderator of the Research Assignment module of the academic package, but can propose a different internal moderator for specific Research Assignments (or all in the package) via the normal channels, for appointment by the Faculty Board.
- 5.4.2.4 The AC of each academic package proposes one or more external moderators for the Research Assignment module of the academic package, via the PC to the Departmental Management Committee. The same moderator may be used for multiple academic packages, if closely related. Multiple moderators may also be used for a single Research Assignment module. Proposals for the external moderators are approved by the Departmental Management Committee and submitted by the PC to the Faculty Committee and Faculty Board for approval and appointment.
- 5.4.2.5 When the Research Assignment is ready for examination, the MC proposes two examiners via the AC, for approval by the Departmental Management Committee. The MC may recommend themselves, and also consult the supervisor in the identification of a suitable examiner. Note that the examiners for Research Assignments are not approved by the Faculty Committee or Faculty Board. Using the normal guidelines for examiners of postgraduate programmes, the examiners are:
 - One internal examiner, which may be the supervisor.
 - An additional internal or external examiner.
- 5.4.2.6 The student submits the Research Assignment for examination.
- 5.4.2.7 The Departmental Postgraduate Officer distributes the Research Assignment to the examiners, together with the form *PG06-M(Struct) Examiner Report*. Note that, in contrast to the process for a research-based programme:
 - No option exists on this form for an examiner to request a second submission of the Research Assignment.
 - No report by the examiner is required, only the evaluation of the standard criteria, and a mark.

- 5.4.2.8 The Departmental Postgraduate Officer, who is responsible for receiving the evaluation reports, ensures that all reports are received by the due date. Timely reminder messages to the examiners may sometimes be necessary. All reports are forwarded to the MC.
- 5.4.2.9 Once all the reports have been received, the average of the marks awarded by the examiners is calculated by the MC and submitted to the Departmental Postgraduate Officer, who completes the form *PG15 – M(Struct) Examination Commission and Examination Report*.
- 5.4.2.10 No opportunity exists for a second submission of a Research Assignment. Examiners may however indicate minor changes which should be implemented to the satisfaction of the supervisor.
- 5.4.2.11 The Research Assignment, all the examiner assessment forms, and the form *PG15 – M(Struct) Examination Commission and Examination Report* are submitted to the designated external moderator. The moderator -
- Familiarizes themselves with the Research Assignment.
 - Verifies that the correct processes were followed.
 - Verifies that the final mark is a fair representation of the marks awarded by the examiners, especially in cases where the marks differ significantly.
 - Can, in problematic cases, change the mark awarded by the MC. In such a case, the moderator is required to perform an assessment of the Research Assignment, and consider this in conjunction with the marks by the examiners, and in consultation with the AC. The mark awarded by the external moderator must fall within the maximum and minimum marks awarded by the examiners. This mark is final.
- 5.4.2.12 The external moderator completes the section on external moderation on the form *PG15 – M(Struct) Examination Commission and Moderation Report*, and returns it to the AC.
- 5.4.2.13 Students who receive a fail mark, may be allowed to register again for the Research Assignment module, with a new project, and new supervisor, if such registration does not extend their total registration period beyond the maximum allowed period.
- 5.4.2.14 In exceptional cases, where clear procedural problems had occurred, a supervisor may appeal the result of a postgraduate evaluation to the Departmental Chair, with a clear motivation.
- 5.4.2.15 The required editorial changes should now be implemented in consultation with the supervisor. If the supervisor is satisfied, the final copy is archived in the department by Departmental Postgraduate Officer, who is also responsible for capturing the final grade mark on the SU system. The Research Assignment is not submitted to the SU Archive.
- 5.4.2.16 For Research Assignments, a public presentation and a concept research paper are not mandatory. However, an AC may require, as part of the outcomes of the module, either or both.
- 5.4.2.17 Upon finalisation of the evaluation process, the AC is responsible for informing the examiners of the outcome, expressing the thanks of the Department and the Faculty, and initiating all payments to supervisors (if applicable) and external examiners.

5.4.3 Final Mark

After completion of all the modules, including the Research Assignment module, the AC calculates a

final credit-weighted mark for the degree programme for each student, and forwards the mark to the Departmental Postgraduate Officer for uploading to the marks system. This mark is in addition to the marks of the course-based modules and the Research Assignment module.

5.5 Master's Research Programmes

- 5.5.1 Examiners, after having been consulted beforehand, are nominated in writing by the supervisor(s), using the form *PG01 – Appointment of Postgraduate Examiners*, according to the applicable prerequisites.
- 5.5.2 The nominations are submitted via the MC for approval to the Departmental Management Committee. Upon approval of the examiners, the names and necessary information are forwarded to the Faculty Administrator for inclusion on the agenda of the Faculty Committee. Following approval by the Faculty Committee, and thereafter final approval by the Faculty Board, appointment letters are sent out by the Faculty Administrator.
- 5.5.3 The thesis is submitted to the examiners as described in the relevant section above.
- 5.5.4 An oral presentation by the student is required in all cases. A public presentation, covering a substantial part of the student's research (for example presenting a paper at a conference or workshop), may be recognised by the MC as fulfilling this requirement. Such a presentation may also be combined with an oral examination.
- 5.5.5 The examiners evaluate the thesis individually. Each completes the form *PG04 – M_R Examiner Report*, awards a mark in multiples of 5, and indicate whether they require an oral examination (only when their decision is between pass or fail).
- 5.5.6 Before any interaction between the examiners, the student, or the department, the MC compares the marks from all examiners to determine whether the marks are located within the same clearly defined range; the ranges are (1) 45 and below, (2) 50 up to 70, and (3) 75 and greater.
- 5.5.7 Marks and reports are made available to the supervisor(s), with no discussion required thereafter.
- 5.5.8 The MC decides on the basis of all the information between three options:
- 5.5.8.1 If the marks from all examiners lie within the same range, no examiner awarded a fail mark or a re-submission, and all examiners and supervisors indicated that they do not require an oral examination, the MC may award the average of the marks as the final mark. In such a case, no further interaction is required (including any form of rebuttal, oral examination, etc.), and the student is only required to make minor changes as proposed by the examiners, to the satisfaction of the supervisor(s). No consensus between examiners is required, and the examiners, supervisors, and student, are simply informed of the mark.
- 5.5.8.2 If the marks do not lie within the same range, but no examiner awarded a fail mark or a re-submission, and all examiners and supervisors indicated that they do not require an oral examination, the MC may decide to initiate the mark finalisation without an oral examination. In this case:
- The MC sends the comments by the examiners to the supervisor, who discusses it with the student.
 - The student, in consultation with the supervisor(s), prepares a response to the comments of all the examiners, in one document.
 - The response is sent to all the examiners together with the marks awarded by all examiners. No changes to the thesis are allowed at this stage.

- The examiners are then requested to either confirm their original mark, or to propose a new mark. Any examiner can also request a full oral examination at this stage.
- Based on the feedback from the examiners, the MC now either awards a final mark, calls a meeting of the full Examination Commission to decide a final mark, or calls for an oral examination.
- If all members of the Examination Commission agree with the proposed mark, the outcome is recorded on the Examination Commission Form, using the form *PG05-M Examination Commission Report*. At this stage, the final mark may be made available to the student.
- If any member of the Examination Commission does not agree with the proposed mark, the procedure for an oral examination is followed.

5.5.8.3 If any examiner awarded a fail mark or a re-submission, or any of the examiners or the supervisors indicated that they require an oral examination, or consensus could not be reached without an oral examination, an oral examination is required. In such a case:

- The MC sends the comments by the examiners to the supervisor, who discusses it with the student.
- The student, in consultation with the supervisor(s), prepares a response to the comments of all the examiners, in one document.
- The response is sent to all the examiners together with the marks awarded by all examiners. No changes to the thesis are allowed at this stage.
- An oral examination is held, following the normal procedures for oral examinations.

5.5.9 If the outcome of the examination process is the requirement for a re-submission of the thesis, the student is allowed a single opportunity to improve the document, incorporating the comments of all the examiners, with all changes clearly indicated. These improvements must be submitted within the allowed time limits for a Master's programme. The revised thesis is re-sent to all the examiners, for a second round of examination or approval. No additional submission can be requested.

5.5.10 If consensus about the final result cannot be reached during the normal examination process, the case is referred to the Departmental Management Committee. If all examiners recommend a fail or all recommend a pass, the Departmental Management Committee awards a final mark between the minimum and maximum marks of the examiners. Otherwise -

5.5.10.1 The Departmental Management Committee proposes an external assessor, with motivation and the background of the specific case for approval, to the Faculty Committee and Faculty Board.

5.5.10.2 The assessor must have proven experience in evaluating Master's theses in Engineering, be an expert in the applicable field, and satisfy all the standard requirements on external examiners of Master's theses.

5.5.10.3 In cases where time constraints exist, the Vice-Dean (Research & Industry Liaison) can pre-approve the assessor. In such cases, the process can continue, and the approval of the assessor is tabled at the next Faculty Committee meeting. It should however be noted that the Faculty Committee or Faculty Board can reverse the approval of the Vice-Dean (Research & Industry Liaison) at this point, in which case any recommendations by the assessor are disregarded, and a new assessor must be appointed.

- 5.5.10.4 The assessor is provided with a copy of the thesis, the examiners' anonymous reports, as well as a comprehensive report by the chairperson of the Examination Commission, which includes the views of the supervisor(s) and the student.
- 5.5.10.5 The assessor is asked to propose a final outcome, and a mark which must lie between the minimum and maximum marks awarded by the examiners. The decision and mark proposed by the assessor are final.
- 5.5.10.6 The final outcome is ratified by the Departmental Management Committee.
- 5.5.11 The MC informs the Postgraduate Administrative Officer who is responsible for capturing the final grade mark on the SU system, of the outcome. The final mark is loaded.
- 5.5.12 In exceptional cases, where clear procedural problems had occurred, a supervisor may appeal the result of a postgraduate evaluation to the Departmental Chair, using the process for appeals.
- 5.5.13 If a pass mark was awarded, the required editorial changes should now be implemented in consultation with the supervisor(s).
- When the supervisor(s) is satisfied with the edited thesis, the pdf-version of the document can be uploaded to the SU database, in accordance with the departmental procedures.

5.6 PhD programmes

- 5.6.1 For PhD students, the appointment of examiners and submission of the dissertation follows the same process as for Research Master's students.
- 5.6.2 For PhD students, an oral examination is mandatory in all cases.
- 5.6.3 The MC sends the comments by the examiners to the supervisor, who discusses it with the student.
- 5.6.4 The student, in consultation with the supervisor(s), prepares a response to the comments of all the examiners, in one document. The response is sent to all the examiners. No changes to the thesis are allowed at this stage.
- 5.6.5 An oral examination is held, following the normal procedures for oral examinations.
- 5.6.6 If consensus is reached at the oral examination, the outcome is recorded using the form *PG11-PhD Examination Commission Report*.
- 5.6.7 The chairperson of the Examination Commission returns the Examination Commission Form, as well as all the evaluation reports and recommendations, to the MC.
- 5.6.8 In the case of a re-submission of the dissertation being required by any examiner, after conclusion of the oral examination, the student is allowed a single opportunity to improve the document, incorporating the comments of all the examiners, with all changes clearly indicated. These improvements must be submitted within allowed time limits on the PhD programme. The revised dissertation is again sent to all the examiners, for a second round of examination or approval. A second oral may be scheduled at the discretion of the MC, but is not mandatory, and no additional submission can be requested. The PC completes the form *PG11-PhD Examination Commission Report*.
- 5.6.9 If consensus about the final result cannot be reached after a re-submission, the following process is followed, as described in the Calendar Part 1.
- The Departmental Management Committee appoints an external assessor or a panel of assessors, who should be specialists in the subject domain of the dissertation, and have substantial academic standing, and experience in the examination of doctoral dissertations. The appointment process of the assessors is identical to the appointment procedure for postgraduate examiners.

- The assessors are provided with a copy of the dissertation, the examiners' anonymous reports, as well as a comprehensive report by the chairperson of the Examination Commission, which describes the process, summarizes the oral examination, and includes a statement by the supervisor(s).
- The task of the assessors is not to serve as additional examiners. Rather, they are expected to work through the reports, and consider all stated criticisms and arguments for and against, and then recommend a pass or a fail. In this process, they may however need to work through sections of the dissertation themselves.
- The reports of the assessor or panel of assessors are received by the chairperson of the Examination Commission, and submitted to the Faculty Committee by the PC, via the Departmental Management Committee.
- The report or reports of the external assessor(s) are submitted via the Dean's Office to the relevant faculty committee for consideration. The relevant faculty committee makes a recommendation to the Faculty Board. The Faculty Board's decision is included in the Recommendation Report to the EC(S) and Senate.
- After the final decision on the conferment of the relevant Doctorate has been made, the chairperson of the examination panel informs the examiner(s) and the assessor(s) of Senate's decision.
- If the assessor or any of the assessors do not recommend the acceptance of the dissertation, then the decision is reported to the Faculty Board and Senate. This decision is final and there is no further dispute settlement remedy available.

5.6.10 If a successful result, the above-mentioned documentation pertaining to the re-submission process, together with a 50 and 100-word summary of the work, are forwarded to the Faculty Administrator for inclusion in the agenda of the Faculty Committee. The original set of documentation related to the first submission need not be included.

5.6.11 The Faculty Committee recommends an outcome to the Faculty Board for approval. The decision of the Faculty Board is included in the Recommendation Report to the EC(S) and Senate.

5.6.12 The required editorial changes should now be implemented in consultation with the supervisor(s).

5.6.13 If the supervisor(s) is satisfied with the edited dissertation, the supervisor(s) informs the departmental Postgraduate Officer in writing that the pdf-version of the document can be uploaded to the SU database.

5.6.14 Departmental procedures dictate who is responsible for the nomination, uploading and approval of the final version of the dissertation on SUNScholar.

5.7 DEng Programmes

5.7.1 For DEng candidates, the appointment of examiners and submission of the dissertation follows the same process as for PhD students. However, for DEng candidates, all the examiners must have global standing in the specialist field of the dissertation.

5.7.2 No standard evaluation form is used for the DEng. Instead, examiners are requested in a cover letter to determine if the work presented in the dissertation represents a substantial contribution to the global knowledge base in the applicable specialist field, and motivate their decision in report form.

5.7.3 For DEng candidates, no oral examination is required.

5.7.4 The MC sends the comments by the examiners to the supervisor, who discusses it with the candidate. If required by an examiner, the candidate may prepare a response to such an examiner individually.

- 5.7.5 No option exists for a re-submission of a DEng dissertation.
- 5.7.6 If all examiners are in agreement that the dissertation represents a substantial contribution to the global knowledge base in the applicable specialist field, the MC reports the outcome to the Departmental Management Committee via the AC, and forwards the examiner reports.
- 5.7.7 If the examiners are not in agreement, the PhD process for no consensus is followed.
- 5.7.8 The Departmental Management Committee ratifies the outcome, and forwards the outcome to the Faculty Committee, where it follows the same process as for the PhD.

6 Appeals

- 6.1.1 In exceptional cases, where clear procedural problems had occurred, a supervisor may appeal the result of a postgraduate evaluation to the Departmental Chair, with a clear motivation. The Departmental Management Committee (or Departmental Chair and at least one senior staff member in very sensitive cases) reviews all aspects of the evaluation for procedural problems.
- 6.1.2 Note that an appeal only has grounds if clear problems in the process can be identified – a difference of opinion between the supervisor and the examiners on the result, is not by itself grounds for an appeal (examples of procedural problems can include cases where examiners did not perform the examination adequately, misunderstood critical sections of the work, etc.)
- 6.1.3 If a problem is identified, the Departmental Management Committee (or Departmental Chair in very sensitive cases) proposes remediating measures, and following these measures, proposes a result to the Faculty Committee, via the Vice-Dean (Research & Industry Liaison).
- 6.1.4 If no clear problem can be identified, the supervisor is informed that the appeal was unsuccessful.
- 6.1.5 In cases where a member of the Departmental Management Committee and/or Faculty Committee is involved as supervisor, co-supervisor, or examiner, such a member may not be involved in the discussion of the appeal.
- 6.1.6 The Departmental Chair informs the supervisor of the outcome of the appeal, following the Faculty Committee meeting. If the appeal is upheld, and the result of the examination is changed, the Departmental Chair informs the examiners of the appeal, and the remedial measures taken that resulted in the changed outcome.