QUALITY ASSURANCE MANUAL
for POSTGRADUATE EDUCATION
2012

SCHOOL OF GRADUATE STUDIES
Ensuring quality in postgraduate education
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1 INTRODUCTION

1.1 About the SGS

The School of Graduate Studies (SGS), Universiti Putra Malaysia (UPM), was established in 1983 (formerly the Postgraduate Studies Unit, 1983-1992, and the Centre of Graduate Studies, 1993-2002) to oversee the affairs of students enrolled in the various postgraduate study programmes in UPM.

The SGS has produced 14,470 graduates since its inception, and is the largest recipient of external (governmental and private) research funding in Malaysia. Graduate degrees conferred by UPM are recognised worldwide, with many graduates finding career and further study opportunities abroad upon completion of their UPM graduate degrees. Additionally, the SGS is an award winning unit, that has received, among others, accreditation from the Malaysian Qualifications Agency and MS ISO:2008.

1.2 Quality Manual

The SGS Quality Manual (QM) provides a regulatory framework for matters related to graduate level teaching, learning, supervision and admissions at Universiti Putra Malaysia (UPM). The purpose of the QM is to function as a informational resource for SGS staff as well as relevant staff members from other faculties. The provisions stated herein are binding, and applicable to all faculties, institutes and centres in UPM offering graduate level courses.

Across all faculties, the responsibility for the implementation of the provisions set out in the QM rests with the Deans, Directors and Heads of Departments. Although the Faculties, Research Institutes and Departments of UPM are largely autonomous in terms of managing their academic responsibilities, the principles outlined in this QM must nevertheless be adhered to.

1.3 Organisational Structure

Personnel with defined responsibilities throughout the quality management system have the authority to perform the following within their respective areas of responsibility: carry out preventative measures; identify and record all problems; provide solutions; and verify implementation of solutions.

The organisational structure of the SGS is outlined on the following page.
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2.1 Graduate Selection

The selection of students to postgraduate programmes by the faculties/departments and the SGS must abide by the following guidelines, or the ‘five Rs’: right student, right research project, right supervisor, right time, and right resources.

2.1.1 Right student

The SGS shall only entertain applications for UPM’s graduate programmes of candidates who fulfil the basic entry requirements, in terms of academic qualifications and/or work experience. Besides the specific qualification requirements for each individual graduate programme as determined by the faculties/departments, applicants in general should possess the following:

- Prior degree/s, or work experience in a related field;
- Satisfactory justification in the application cover letter and references in the case of the applicant having a prior degree/work experience that is unrelated to the field of study being applied for; and
- Adhere to the application requirements; students must use the i-GIMS Student Portal for online application, in addition to being able to reproduce physical proof of qualifications.

The staff of the SGS are advised to only approve the applications of candidates who meet these basic requirements. Applicants cannot, however, be rejected on the grounds of gender, ethnicity, religion, disabilities, age, and country of origin. Faculties/research institutes/departments who are found to contravene this anti-discrimination ruling, and who are found to be practising favouritism in any guise will be met with stern action from the University. For more on admissions, see Section 2.2.

Quality in this regard can be gauged from the number of graduating Master’s and PhD candidates, as well as the number of publications and presentations that they are able to deliver. High numbers in these fields will indicate that the right candidates—dedicated students who are able to replicate and better their previous professional and academic achievements—were accepted into the course in the first place. For more on quality indicators, see Sections 3.1.2 and 3.1.3.
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2.1.2 Right Research Project

The SGS shall only approve applications for UPM’s graduate programmes of candidates who present a viable research project proposal. The thesis proposal should:

- Reflect the maturity levels required of graduate students;
- Be able to relate to the niche research areas of the faculties/research institutes/departments, and reflect well on the SGS and UPM in general;
- Be neither too ambitious that it is likely to take applicants longer than the prescribed timeframe to complete, nor too specific that it cannot meet the prescribed minimum length criteria;
- Display potential to be of benefit to society;
- Be original; and
- Be able to advance knowledge in a given research field.

Relevant staff members, i.e., potential supervisors (named by the applicant), as well as the deputy deans of the faculties/institutes must ensure that all content in the research project proposal is original. Students who are found to have plagiarised content in their research project proposal must be rejected outright, as the failure to do so will bring disrepute upon the faculties/research institutes/departments, SGS and UPM. As above, quality in this regard can be gauged from the number of graduating Master’s and PhD candidates, the number of publications and presentations generated by these students, as well as the quantity of patents and copyrights approved for original products/works. The latter two especially—a high rate of publication in citation indexed journals, and a large number of patents and copyrights approved for original products and works—will indicate that the research projects conducted by the students, after having been vetted by the relevant University bodies, are pioneering in the field and beneficial to society. For more on quality indicators, see Sections 3.1.2 and 3.1.3.

2.1.3 Right Supervisor

SGS shall only entertain applications for UPM’s graduate programmes of candidates who have named a relevant advisor/supervisor. Although this advisor/supervisor may be changed at a later date (if the candidate chooses to do so) a relevant supervisor must still be named to ensure that the field of study that the candidate wishes to engage is in accordance to fields of study currently being pursued by the academic staff of UPM. In the case of the student being unable to confirm the appointment of a relevant supervisor within his/her first semester of study, it will then be incumbent upon the academic and the faculties/research institutes/departments to select a supervisor for the student.

The Graduate Studies Units of the individual faculties/research institutes/departments and the SGS must also be aware of the number of supervisees attached to a given academic staff member at the time of application, including number of students who are deferring, graduating or withdrawing from their graduate programme. This is to avoid creating an imbalance in terms of supervisee to supervisor ratio, and in turn, placing unnecessary pressure upon the academic staff member in question. Failure to do so may also result in candidates feeling that they have signed up for a graduate programme under false pretences; this in turn can lead to disrepute being brought upon the faculties/research institutes/departments, SGS and UPM.
Besides the number of graduating Master’s and PhD candidates, successful research supervision can be gauged from levels of student satisfaction. Successful supervisors will leave their supervisees not only feeling motivated and passionate about conducting further research in the field, even after the completion of their degree, but also proactive and courageous enough to venture into academia or other careers fields independently. For more on quality indicators, see Sections 3.1.1 and 3.1.2.

2.1.4 Right Time

Although possibly less apparent than the other fields in this section, the ‘right time’ can be gauged from the levels of student satisfaction, completion rate, as well as the overall operational efficiency of the SGS. Students who are not faced with a myriad of bureaucratic roadblocks are satisfied students, who will not only be able to complete their degrees on time, but also excel in doing so. For more on quality indicators, see Sections 3.1.1 and 3.1.2.

2.1.5 Right resources

The SGS shall only entertain applications for UPM’s graduate programmes of candidates that can be feasibly completed with resources already available on campus. The burden of identifying which research projects are or are not suitable to be conducted on campus, in terms of research equipment available, shall fall on the relevant faculties/research institutes/departments. Planning student intake around the resources that the University either has or plans to have will ensure that students are able to complete their degrees and publish their findings without undue hassle. Some general guidelines on admissions based on availability of resources should be heeded, which include:

Staff resources

- Especially for PhD candidates, interaction and negotiation between the candidate and the potential supervisor is highly advised, to ensure that there is compatibility, both in terms of niche research area and personalities of both parties. The negotiation process will aid greatly in the professional success of the PhD candidate.

- In the case of the candidate being unable to confirm the appointment of a supervisor in his/her first year of study, the Graduate Studies Unit and the programme coordinators at the relevant faculty/institute should also encourage interaction and negotiation between said candidate and supervisors of the faculty/institute’s choosing. This too will help to allay any possible clashes between the candidate and his/her supervisor, in terms of niche research area and personalities.

Technical resources

- Wherever possible, candidates should be informed beforehand if their proposed research project cannot be carried out in its entirety due to the lack of equipment, so they can make alternative arrangements.

- Quality in terms of the availability of the ‘right resources’, both in terms of teaching staff and research equipment, can be gauged from the number of Master’s and PhD candidates who are able to complete their degrees on time, as well as the number of publications and presentations that they produce. For more on quality indicators, see Sections 3.1.2 and 3.1.3.
2.2 Admissions

Aside from the specific requirements as outlined by the faculties/research institutes/departments, candidates applying for a graduate degree in UPM must meet the minimum academic, English language, and health requirements (refer to SGS website for full requirement details). As noted in Section 2.1.1, choosing the right candidates to undertake graduate courses in UPM will result in a high completion rate. If these checks are not carried out in the first place—in that applying candidates do not possess the necessary academic, English language, and health requirements—the completion rate is very likely to fall below satisfactory standards, which will subsequently tarnish the reputation of both the SGS in particular and UPM in general. For more on quality indicators, see Section 3.1.2.

The responsibilities of the SGS for the admissions process are as follows:

- Process online applications within 60 days of submission;
- Receive and process supporting documents from candidates;
- Determine that candidates fulfil basic criteria, in terms of following all application procedures, providing all supporting documents, and meeting basic academic qualifications;
- Send applications out to the respective Deans/Heads of the faculties/departments;
- Receive notice of approvals/rejections from the respective Deans/Directors/Heads of the faculties/departments within 14 working days;
- Inform candidates of successful/unsuccessful applications via post or email within 60 days of submission; and
- Receive and process payments of successful candidates.

Whereas the responsibilities of the faculties/research institutes/departments are as follows:

- Receive applications from SGS;
- Determine if candidates possess the necessary qualifications;
- Determine if the requested supervisor is available to accept supervisees, in terms of falling under the prescribed supervisor: supervisee ratio, or if said supervisor is on study leave/sabbatical;
- Determine that the faculty/department has adequate resources for the research project to be carried out;
- Respond to the SGS within 14 working days; and
- Brief successful candidates upon the commencement of their study period.
2.3 Research Project Supervision

2.3.1 Overview

Research supervision is a complex interaction between candidates, supervisors, as well as the surrounding academic environment. It also frequently becomes a very tense relationship, in the case of supervisors and supervisees not being able to communicate successfully with one another. As such, it is vital that excellence in research project supervision is maintained.

As noted in Section 2.1.2 above, quality in research project supervision can be gauged both from the number of graduating Master’s and PhD candidates, as well as the number of publications and presentations that these students are able to produce. A high completion rate will indicate that graduating students received adequate direction along the sometimes tricky path of postgraduate study, while a high publication rate will indicate that students have received the necessary level of guidance to become confident and capable pioneers in their respective fields. For more on quality indicators, see Sections 3.1.2 and 3.1.3.

Supervisors are free to choose the style in which research supervision is carried out, but should tailor that style to fit the needs of their students, i.e., a supervisor should gauge if his/her student requires close supervision, guidance, and motivation, or if the student would work better with a degree of independence.

2.3.2 Ensuring quality in research project supervision

Whatever style the individual academic staff members choose to carry out supervision activities, certain guidelines must be followed to avoid negligence and possible antagonism. Supervisors have the burden of responsibility to create a situation of mutual respect, open communications, understanding of expectations, and a shared commitment to the completion of the candidate’s research project. Supervisors are advised to carry out the following:

- Propose supervisory meeting schedule within the first semester of the candidate’s period of study;
- Actively monitor the progress of the courses the candidate takes; if necessary, the supervisor should also be aware of the variety of graduate courses on offer and make recommendations to the candidate;
- Actively observe candidate’s research skills (e.g., ability to design research plan, write out proposal, source for literature); if necessary, supervisor can recommend that the candidate undertake Putra Sarjana skills courses; and
- Along with the Deputy Deans of the faculties/institutes, supervisors should inform and remind candidates of their responsibilities, e.g. filing the GS-11 Progress Report, forming a supervisory committee, registering for the SPS6903 postgraduate seminar, registering for SPS6999, forming an examination committee, publishing articles in journals, attending conferences, etc.
A good supervisor is one who displays the following traits:

- Supervisors should play a supportive role in the completion of their students’ research degrees. This involves providing emotional support, encouragement and motivation if required, and on a more fundamental level, recognising that students are grown adults, and not just research students.

- Supervisors should also make themselves available and approachable to their students. This involves scheduling regular meetings with students to ascertain their research progress, and being contactable, either by phone or by email, during office hours to ensure that students’ queries are not ignored.

- Supervisors should show an active interest in their students’ fields of study. This can be shown to the student by keeping abreast of developments in his/her particular field of study, and not being dismissive towards students’ research interests.

- Supervisors should also show an interest in the professional development of the student, which involves notifying students of conferences and seminars relevant to their field of study, encouraging students to publish their research findings, or putting students in touch with colleagues whose research interests overlap with those of the student.

- Successful supervisors must maintain a healthy line of communication with their students. This relates to the supervisors’ own communication skills, as they will have to communicate in an open and fair manner to their students regarding the progress of the research project.

- Supervisors should also provide constructive and timely feedback to their students that is not overly negative. Additionally, this feedback should not contradict feedback given by other members of the supervisory committee. Unfairly negative or contradictory feedback can leave students feeling demotivated and frustrated, which may hinder the progress of their research degrees.

- Supervisors are also responsible in providing clear direction, focus, structure and expectations of the research project to be undertaken. This can be carried out by being clear and understanding when setting tasks and deadlines, and pushing students if necessary.

Additionally, the supervisor should also be personally responsible for ensuring that research practices are carried out responsibly. This includes, but is not limited to:

- Ethical responsibility towards research participants and subjects, as well as animal subjects and the environment;

- Responsible use of public resources used to conduct research;

- Appropriate acknowledgment of the role of colleagues and fellow researchers in any research activity; and

- Responsible communication of research results in publications and conferences, encompassing the avoidance of result fabrication, falsification and misrepresentation; plagiarism; and failure to declare serious conflicts of interest.
Successful supervision is a two-way process. A good student is as much an essential part of successful supervision as a good supervisor. A good student is one who displays the following traits:

- The primary quality necessary for a good student is intelligence, encompassing academic ability, intellect, brightness and common sense.
- Students should display independence, confidence, initiative and the ability to take responsibility.
- Students must have a high level of commitment to their work. This can be read to include having perseverance, persistence, determination, dedication, tenacity, resilience and endurance.
- Students should also display a competent level of literacy / numeracy skills.
- Students should have good time management and organisational skills.
- Students should be hard working and diligent, with strong work ethics.
- Students must have strong self-motivation for doing the research.

Responsibilities of an effective supervisor:

- Provide clear direction, focus, structure and expectations of the research project to be undertaken.
- Brief the student on the learning outcomes of his/her graduate study programme and associated evaluations.
- Remind the student of graduate studies regulations, working rules and ethics, safety procedures, as well as facilities available within the faculty and university. Also remind the student to regularly use and check his/her online portal, learning portal and email for notifications from the School of Graduate Studies.
- Advise the student on courses they should register for, to not only enhance their knowledge, but develop their capability to conduct effective research.
- Provide the student guidance on research to be undertaken, in terms of the standard expected of the research project, planning of the research programme, sourcing for relevant literature, and avoiding plagiarism. Additionally, the Committee must ensure that the student plans his/her research project in detail within the first few months of study, to ensure that he/she is able to submit his/her thesis within three years (or not later than four years for PhD candidates).
- Advise the student on who he/she should appoint as members of their supervisory committee.
- Schedule regular meetings to discuss the progress of the student’s research project. The other committee members should also make themselves available for the meetings at least three times per semester.
- Be accessible to the student at other appropriate times when they may need advice. Set aside adequate time for the student (for example one hour per week) and remain contactable through other forms of communication, i.e., email, SMS, etc.
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- Request written work as necessary, and provide constructive criticism of that work within a reasonable time frame.

- Encourage the student to disseminate and share their research findings and results through publication in high impact journals, and presentations in national and international conferences. Remind them that journal publication is compulsory, and is part of UPM’s graduation requirements.

- Ensure that the student submits his/her progress reports before the deadline of each semester. The Committee must also evaluate student performance for the semester based on the contents of the report and comment on their progress.

- Ensure that the student is made aware of any inadequacies, in terms of progress, or of work below the generally expected standard.

2.4 Governance

2.4.1 Process and proceedings

The SGS and the faculty/institute-level Graduate Studies Units must ensure that they provide candidates with the necessary information upon request. Neither the SGS nor the Graduate Studies Units should withhold information from any candidate based on considerations of gender, race, religion, age or any other discriminatory grounds.

Additionally, both the staff members of the SGS and the Graduate Studies Units must ensure that there is an effective channel of communication between themselves, as well as between related bodies, such as the Deans/Directors/ Heads of faculties/departments, Library, Bursar, etc.

It is vital that the QM guidelines are adhered to so that there is no confusion along the bureaucratic chain in terms of conflict between SGS and faculty/research institute/department-level procedures. For instance, the SGS has the responsibility in managing student affairs, i.e. scheduling of viva voce, course registration procedures, payment of fees and fines, etc., whereas the faculty is responsible for the use and availability of technical resources and staff members.

An inefficient and unproductive chain of management will result in candidates feeling burdened by bureaucracy, which could then cause great detriment to their academic progress. Efficient operations, on the other hand, will result in candidates being satisfied, and in turn, enable them to complete their degrees on time and publish their results. For more on quality indicators, see Sections 3.1.1 and 3.1.2.
2.5 Academic Progress

2.5.1 From the University’s perspective

Various parties are responsible for tracking a candidate’s academic progress, including the SGS, the faculties/research institutes/departments, the Graduate Studies Units, course coordinators, as well as supervisors. Although the bulk of this responsibility falls on the supervisor, other bodies can also track student progress in terms of GS-11 Progress Reports, formation of a supervisory committee, the postgraduate seminar, the examination committee, publication of articles in journals, attending conferences, etc.

Quality in this regard can be easily gauged from the levels of student satisfaction, completion rate, as well as the number of publications and presentations, since these factors are closely intertwined. Candidates who are given the right support in terms of being reminded of their responsibilities are less likely to feel overwhelmed by the sometimes daunting task of completing a degree; accordingly, worry-free candidates will be able to dedicate themselves to their research projects, which will, in turn, result in excellent theses and publications being produced. For more on quality indicators, see Sections 3.1.1., 3.1.2, and 3.1.3.

2.5.2 From the candidate’s perspective

The burden of responsibility does not begin and end with the University; candidates are required to be largely responsible for their own progress, and cannot be entirely reliant on their supervisors. Candidates themselves must ensure that they:

- Meet basic course registration criteria, including SPS6999 and SPS6903
- Meet publication criteria
- Meet presentation criteria
- Make payments when required, as well as seek financial assistance if necessary from the University or other bodies (refer to SGS website for available financial assistance)
- Schedule regular meetings for updates on thesis progress
- Submit GS-11 at the close of every semester
- Submit their thesis
- Be involved in the scheduling of their viva voce, by communicating directly with the SGS
2.6 Research Environment

2.6.1 Global research collaboration

Various parties within the University are responsible for creating a collaborative and supportive research environment for students and academic staff alike. Primarily, this will involve all parties ensuring that their individual responsibilities are carried out—from the Library ensuring that it has access to the latest informational resources, to the individual student ensuring that he or she is involved within global research collaboration via publications and conferences.

Creating a conducive research environment is vital to ensure that the levels of student satisfactions remain high, which will subsequently be translated into a high completion rate as well as a high number of publications and presentations produced. A poor research environment, in terms of insufficient technical and informational resources, as well as inadequate teaching resources, will unnecessarily burden candidates, which will then make the task of them completing their degrees or publishing their findings even more difficult. For more on quality indicators, see Sections 3.1.1., 3.1.2, and 3.1.3.

In recognition of academic excellence, SGS provides opportunities for both inbound and outbound research attachments. Through UPM’s MOUs/MOAs with other universities and research institutions, selected students and staff gain international academic and research experience. Students and staff from other universities and institutions may benefit from research or academic attachment with any of the faculties at UPM.

2.6.2 Joint/dual research degree programme

As part of UPM’s effort to promote global research collaboration, SGS also offers a split or jointly awarded PhD degree programme, and a dual degree programme. The split or jointly awarded PhD degree programme requires the student to conduct part of his/her research and/or enrol in courses at the partner universities or research institutions as specified by the programme. The degree is a joint recognition of the work accomplished by the student in both institutions, under the supervision of two research supervisors. The student will receive a degree certificate which is endorsed by both partner institutions.

The dual degree programme works in the same way as the jointly awarded degree programme, but allows the student to graduate with two degree certificates (one from each institution) in one field of specialisation. Following the model of the International “Cotutelle” PhD programme developed by the French, the programme gives the student the unique opportunity of learning from the research methods and culture of both countries, thus broadening the student’s experience to an international level and enhancing research network between the two countries.
2.7 Research Skill and Professional Development

2.7.1 Putra Sarjana

The Putra Sarjana learning support programme is designed to help graduate students in Universiti Putra Malaysia develop a range of essential academic, professional and community service skills that they can apply in their research activities and subsequent careers, academic or otherwise. Candidates are primarily responsible for ensuring that they undertake these courses if necessary, since the Putra Sarjana workshops and seminars do not involve the faculties/departments per se, save in the capacity of academic staff presenting these workshops and seminars. Putra Sarjana encompasses five clusters, namely academic development, professional development, ethics and morals, community service and editorial service. These clusters are meant to address a number of research attributes that all graduate candidates should possess:

- **Academic literacy**: Relating to a strong general knowledge core, and an understanding of the values and assumptions underlying all knowledge presented in the form of academic writing;
- **Research literacy**: Relating to the basic skills required to research a topic, including knowing where and how to acquire research data, as well as how to analyse, interpret and synthesise data;
- **Digital literacy**: Relating to usage of the internet as a means of study context and data acquisition, as well as keeping up-to-date with hardware and software innovations;
- **Global citizenship**: Relating to the larger social impact of research, and the pioneering role that research activities and results play in the communities around them; and
- **Critical and personal self-awareness**: Relating to self-knowledge in terms of considering one’s own assumptions, motives, prejudices and biases when obtaining or disseminating knowledge.

Putra Sarjana offers three certificate course packages which address the clusters listed above. The certificate course packages comprise the Academic Career Preparatory Certificate, the Write Right© Academic Writing Certificate, and the Professional Skills Certificate. Students who complete all of the courses in any of the certificate packages will obtain certificates of achievement. Students can also choose from the standalone core courses. These standalone courses are grouped under a number of themes, namely Studying at UPM, Basic Research Skills, IT and Data Analysis Skills, Research Skills for the Social Sciences, Research Skills for the Sciences, Thesis Preparation Skills, as well as Personal Development and Community Service. The completion of each individual core course will see students issued with a certificate of attendance. Additionally, the SGS will also provide students with information on how to engage professional editors for their theses. A full breakdown of the certificate and core courses on offer can be downloaded from the SGS website.

Since the core and certificate courses of Putra Sarjana directly address a wide variety of skills that students will need to excel in both academic and professional contexts, its quality can easily be gauged from candidates’ completion rate, the number of publications and presentations produced by candidates, as well as their levels of professional development. For more on quality indicators, see Sections 3.1.2, 3.1.3, and 3.1.4.
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2.8 Support and Awareness

2.8.1 Handling grievances

In all cases, resolution of grievances must be attempted at the lowest possible level of management. Students are advised to take their complaints first to the individual supervisors, then to the department, then if still unresolved, to the faculty. If the faculty is not able to resolve the issue, the SGS can follow up on the complaint as the mediator to all parties involved. In the case of grave and serious complaints, i.e. inappropriate sexual behaviour or corruption, the SGS must report to higher management of the university so that an investigative committee can be formed.

Grievances that require the involvement of the higher management of the university should only be complaints that are of a serious nature, such as the victimisation, unlawful conduct, corruption, maladministration, or sexual harassment of a student by a staff member. Additionally, the SGS shall not receive anonymous complaints, unless the allegations are of a serious nature and could jeopardise the academic placement of the complainant, such as corruption and maladministration.

2.8.2 Procedure of handling grievances/solving problems

The SGS is committed to ethical and responsible management, transparency in decision-making, and a fair process of handling grievances. The SGS’s procedures for handling student grievances are conducted with the strictest confidentiality, impartiality, fairness, promptness, and protection from victimisation. All graduate students as well as all staff of the SGS have a responsibility to contribute to the achievement of a productive and safe study and work environment. This includes participating in the grievance handling process in good faith, avoid causing psychological, physical or career harm onto other students and staff members, and cooperating in any investigation into a complaint, if required to do so.

Student grievances that can be pursued by the SGS are those involving:

- Academic staff, if not within the purview of faculties/institutions (e.g. teaching quality, bullying by supervisor, delay in appointment of examination committee, improper guidance and supervision, delayed feedback)
- Support staff, if not within the purview of faculties/institutions (e.g. improper treatment, show of lack of respect, incorrect information, difficulty in getting information)
- Other parties that students interact with as part of an approved external programme, if not within the purview of faculties/institutions
- Matters related to students’ respective programmes of study, if not within the purview of faculties/institutions
Procedural fairness must be observed at every turn in the handling of a complaint. Procedural fairness in this context includes allowing the accused to face his/her complainant, unless the facts of the matter are not in dispute. All parties involved in the complaint (the accused and the complainant) must be allowed to seek his/her own chosen representative.

Furthermore, the staff of the SGS have a responsibility to respond to complaints in the quickest possible time. It is advised that all complaints that are not serious in nature must be resolved within one month of the complaint being made. If it is impossible for this timeframe to be kept, then the complainant must be informed of the delay, so as to avoid allegations of misconduct or abuse of power on the part of the SGS. Staff of the SGS must also ensure that they have no interest or bias in relation to any party involved in the complaint. Above all, the staff of SGS, at every level, must remember that they are public servants, and as such, should not be cowed into inaction or misconduct by other staff members that outrank them.

Quality in terms of student support can be gauged from levels of satisfaction and completion rate. In terms of satisfaction, quality can be gauged from the existing feedback mechanism that exists at the front desk of SGS. Through this mechanism, students can rate the level of service they receive, and whether their queries were attended to sufficiently. Quality can also be measured through the completion rate, since candidates who are unnecessarily burdened by resource related issues, or much worse still, face harassment from their fellow students or teaching staff, will be unlikely to complete their degree programmes. Although contingencies cannot be made for all possible grievances, knowing that there is an efficient mechanism of complaint that puts candidates’ needs first will put their minds at ease. For more on quality indicators, see Sections 3.1.1 and 3.1.2.
3 QUALITY INDICATORS

3.1 Types of indicators

A number of indicators can be used to gauge if the standards set out by the QM, the SGS, the faculties/research institutes/departments and the University are being met. These include:

3.1.1 Student satisfaction

Student satisfaction is primarily gauged from teaching assessments conducted by the Centre of Academic Development at the end of every course. Students will be asked to anonymously rate the performance of their instructors and/or lecturers, by way of a number of criteria, i.e. if the subject of the course was conveyed successfully, if the instruction was clear and articulate, etc.

In the case of supervision, three types of evaluation are readily recognised i.e. formative evaluation, summative evaluation and quality assurance. Formative evaluation involves identifying specific changes through experience or learning process to improve the supervision. It typically includes qualitative feedback from students or colleagues of one’s way of supervising. Reflective evaluation is part of formative evaluation which involves the supervisor reflecting on their own practice to identify strengths and weaknesses. In summative evaluation, students evaluate the supervisor based on certain rating or score, for example 1-5. However, unless the number of students is five or more this evaluation may turn to be statistically invalid or lack of anonymity.

Quality assurance evaluates whole institution based on standardised survey instruments. The information obtained is useful in highlighting institutional performance and areas require attention but not at individual supervisor level.

The Australian and New Zealand survey on higher degree research of supervisors at selected universities, for example, highlights the following aspects as crucial in the evaluation of postgraduate research supervision:

- **The supervisor:** The supervisor’s areas of specialisation and interest, and experience in supervision.

- **Research supervision practices:** Supervisors’ priorities in their work, including their workload, and how supervision is carried out.

- **Development and support of supervisors:** Supervisors’ views on what shaped their development as supervisors, and their views on the nature of support that will facilitate effective supervision.

- **Views on nature of research and future directions:** Supervisors’ views on research and on being a researcher, their views on future directions of doctoral research.
3.1.2 Completion rate

Another way to determine quality is through the percentage of candidates who manage to complete their thesis in the prescribed timeframe. This would indicate that the University is providing adequate teaching, supervision, training, and technical resources, as well as show that the bureaucratic mechanism that handles complaints, payments, applications, etc. is running smoothly.

In this aspect, quality is measured by the number of PhDs completed on time. Students must graduate on time (GOT) within 7 to 8 semesters.

3.1.3 Good supervision

Supervision quality is gauged mainly by successful completion of theses by students as shown by the GOT percentage, number of publications extracted from the theses, examination outcome, and student satisfaction of supervision received. A good supervisor is judged by these achievements, and consequently, may be allowed a higher student ratio and may be nominated for the award of role model supervisor. The following are qualities of an ideal supervisor as identified by the University of Otago, New Zealand:

- **Support**: Supportive, encouraging and motivating.
- **Availability**: Being available for regular meetings or consultations.
- **Interest and enthusiasm**: Interested and enthusiastic about the student’s work.
- **Knowledge and expertise in the field surrounding the PhD**: This is not necessarily in the exact topic of the student’s work, but particularly in the relevant methodologies for the research.
- **Interest in the student’s career**: Giving a start to the student’s career through networking and publication.
- **Good communication**: A good listener, and able to discuss the student’s progress in an open and fair manner.
- **Constructive feedback**: Constructive, consistent and prompt in giving feedback.
- **Provides direction and structure**: Provides a certain amount of structure and direction to ensure the completion of the work.
- **Approachability and rapport**: Being approachable and having rapport with students.
- **Experience and interest in supervision**: Having complete understanding of the process and requirements for the completion of the thesis, and attentive to students’ different needs.
QUALITY INDICATORS

3.1.4 Publications from thesis and conference presentations

Quality can also be gauged from the number of publications and presentations that graduate students as a whole are able to deliver from their respective theses. A high number of publications and presentations in international level journals and conferences not only indicate that the initial selection of excellent students with original and viable proposals is successful, but that the range of learning activities, the supervision and the quality of the academic staff is of international standard.

Quality here is measured in terms of the number of publications produced in journals, conference proceedings, book chapters, and patents. The quality of the publication is also judged based on the quality of the journal, whether the journal is of high impact or not. Thesis quality can also be determined from the recommendation given by the examiners, such as the award of a distinction, indicating the highest recognition of the standard the thesis has achieved.

3.1.5 Professional development

Additionally, quality in terms of professional development can also be gauged from the range of value-added to immediate academic achievement, future academic attainment, and earnings. Given that most of the courses in the Putra Sarjana programme that address the Professional Development cluster also overlap with the Academic Development cluster, immediate academic achievement can be used as a performance indicator. This would also be the easiest to observe, given that the SGS already has access to student records—meaning that student academic progress (in terms of grades) would be tracked by the SGS in addition to the student’s own supervisor.

UPM graduates’ employability is a strong indicator of quality in professional development. Records from the Career Placement Centre (CPC) and UPM’s Alumni can be referred to in gauging how equipped and ready UPM graduates are for the job market.

3.1.6 Success Stories

Of course, a more accurate gauge of professional development skills picked up in Putra Sarjana courses and seminars would be to track the career progression of University alumni. Since a large number of postgraduate students have academia in mind as their career destination of choice, their professional development can be tracked by their academic attainment—this would entail keeping track, in practical terms, of further degrees that UPM postgraduate alumni eventually receive, measured against the quality of the institutions (i.e., existing university rankings) in which they are enrolled. For UPM postgraduate alumni who choose to not enter academia, a different set of variables would be necessary. The quality of the professional development skills that UPM postgraduate alumni picked up from Putra Sarjana can be indicated by their achievement levels in the jobs they settle into—in practical terms, this can be indicated by position and earning level.
Data on the careers of UPM postgraduate alumni can be obtained from various means. For local alumni, this data can be obtained verbally from industry partners. For international alumni, however, it is vital for the SGS and the University as a whole that adequate contact is kept with the ex-student. This can be done via the support of the UPM Alumni. Besides more informal correspondences between teaching staff and alumni, UPM Alumni must automatically place ex-students on a mailing list, so that they can answer questionnaires about their current job positions if they choose to do so.

So as to not come off as intrusive, however, the UPM Alumni should couple these questionnaires with an alumni newsletter that is distributed, for free, to those on the mailing list. This newsletter would contain information on success stories of ex-UPM postgraduate students—in academia or otherwise—which would in turn encourage even more UPM postgraduate alumni to share their stories.

3.1.7 Alumni Support

One of UPM Alumni’s main tasks is to recruit a network of local and international UPM graduates, thus creating a pool of people who can get together and provide systematic support in advising postgraduate students, especially with regard to their career development and fields of specialisation.