



Department of Real Estate
School of Design & Environment

GUIDELINES FOR GRADUATE RESEARCH PROGRAMMES

Doctor of Philosophy (PhD)

Master of Science (Real Estate & Urban Economics)

Applicable for the intakes from August 2016 and onwards

GRADUATE RESEARCH PROGRAM OBJECTIVES:

- To equip students with analytical skills and specialized knowledge for research in broad areas pertaining to urban development and real estate markets.
- To train students to identify research issues, undertake independent research and communicate their research content to various types of audience.
- To prepare students for challenging academic and industrial careers.

MSC(REAL ESTATE & URBAN ECONOMICS)

The maximum candidature is three years. A candidate can apply for upgrading to PhD after he/she has satisfied the coursework and English language requirements.

GRADUATION REQUIREMENT

The following are the requirements for the award of degree:

- Min CAP of 3.0 for all four modules (or 16 modular credits equivalent) taken under the coursework requirement.
- Satisfactory Grade of "C" or better in English Language Course (Intermediate Level), if student is required to take the graduate English Language Course.
- "Satisfactory" grade in graduate seminar module
- Pass in Master's thesis

COURSEWORK REQUIREMENT

- Candidates are required to take a minimum of 6 modules.
 - A. It is compulsory to take RE6004, RE6007 and either RE6005, RE6006 or RE6008. If only one of RE6005, RE6006 or RE6008 is taken for credit, the candidate should try to audit the others.
 - B. They are required to take a minimum of 2 modules (or 8 modular credits equivalent) and maximum of 4 modules (or 16 modular credits equivalent) in each semester consecutively from the beginning of the semester,
 - C. Take at least three L5000 and above modules from the SDE and other related faculties.
 - D. They must obtain an average grade of B- (CAP of 3.00) to be computed from all modules taken (16 modular credits equivalent) under coursework requirements.

Candidates are required to meet the above requirements within 2 semesters from the start of their candidature (excluding the Special Term).

Candidates who do not meet the minimum requirement in the first semester would be asked to leave.

GUIDELINE FOR RESEARCH PROGRESS

Year 1

- Focus on coursework
- Participate in ALL research seminars
- Conceptualize research ideas and develop literature review
- Build up institutional and industrial background knowledge
- Talk to potential supervisors and identify a supervisor (by end of 2nd semester).
- Submit a research plan, endorsed by the research supervisor, to the Deputy Head (Research) by the end of the 2nd semester.

Year 2

- Undertake research and complete thesis
- Work on conference papers, submission to journals etc

CONTINUATION REQUIREMENT

In any semester in which the candidate's CAP falls below the CAP required for graduation (3.0 for Master), a warning will be issued to the candidate. If, in the following semester, the candidate's CAP again falls below the graduation requirement, but not sufficiently to warrant immediate termination, the candidate will be placed on probation.

CAP should not fall below 2.5 for two consecutive semesters and 3.0 for three consecutive semesters. If a candidate's CAP falls below 2.5 for two consecutive semesters, the candidature will be terminated.

GRADUATE SEMINAR MODULE

Register for RE5770 for two consecutive semesters (2nd semester onwards).

Candidates are required to obtain a 'Satisfactory' grade in RE5770 Graduate Seminar module. They:

- must attend ALL seminars organized by the Department over 2 consecutive semesters.
- are required to make a formal seminar presentation in a research forum.

GRADUATION REQUIREMENTS FOR A PHD CANDIDATE:

A PhD candidate has a maximum candidature of five years. The NUS research scholarship is available for four years and renewable every year subject to performance evaluation. To graduate, a candidate must fulfill the following requirements.

- Coursework requirements
- The PhD Qualification Exam
- The Graduate Assistantship Program (GAP) for international students in receipt of MOE-funded scholarships
- Fulfill the English Language requirement, if applicable
- The PhD Thesis Examination

COURSEWORK REQUIREMENTS

Candidates are required to take a minimum of 9 modules

- A. Three L6000 modules offered by the Department of Real Estate (RE6004, RE6005, RE6007) are compulsory. Students should choose either RE6006 or RE6008 depending on their research field.
- B. Candidates are to register for RE6007 upon completion of RE6004, RE6005 and RE6006 or RE6008 (or concurrently if necessary). Candidates are expected to produce a research proposal at the end of the module and to present literature critique and research ideas during the semester.
- C. Take at least five L5000 and above modules from the SDE and other related faculties.
- D. Complete at least eight modules except RE6007 within the first three consecutive semesters. Take RE6007 in your 3rd or 4th semester when it is available.
- E. Academic warning if the CAP* is below 3.5
- F. Probation if the CAP is below 3.5 for two semesters
- G. Termination if the CAP is below 3.0 for two consecutive semesters or the CAP is below 3.5 for three consecutive semesters
- H. Grade C or better in English (advanced level) if language training is required.

* the CAP is calculated by following the formula used in the SDE.

GUIDELINE FOR RESEARCH PROGRESS

Year 1

- Focus on coursework
- Participate in research seminars (compulsory)
- Conceptualize research ideas and develop literature review
- Build up institutional and industrial background knowledge
- Talk to potential supervisors and identify a supervisor (by end of 2nd semester or no later than the end of the 3rd semester).
- Submit a research plan, endorsed by the research supervisor, to the Deputy Head (Research) by the end of the 2nd semester.

Year 2

- Complete required coursework
- Prepare for PhD QE – Comprehensive Written Examination
- Develop a substantial research proposal
- Prepare for PhD QE – Oral Defense

Year 3

- Undertake research and complete thesis
- Work on conference papers, submission to journals etc

DOCTORAL SEMINAR MODULE

Register for RE6770 for two consecutive semesters (3rd semester onwards).

Candidates are required to obtain a 'Satisfactory' grade in RE6770 Doctoral Seminar module. They:

- must attend *ALL* seminars organized by the Department over 2 consecutive semesters.
- are required to make a formal seminar presentation in a research forum.

PHD QUALIFICATION EXAMINATION (QE)

A. The PhD Qualification Exam (QE) is to be taken after successful completion of the module requirements. It should be taken between 18–24 months of a candidature.

- i. A comprehensive Written Examination includes two papers: a general paper including two parts set by the faculty members who taught RE6005 and RE6006/RE6008 respectively and a specific paper set by the respective supervisor. Subject to the approval, part or one of the papers can be replaced by a term

paper which should be presented in the department upon a satisfactory evaluation by the respective supervisor around the regular QE written exam dates. There is no requirement for examination style.

ii. An Oral Examination of PhD thesis proposal:

1. Submission of a 6,000- 10,000 words research proposal
2. Defend the research proposal before an oral examination panel
 - a. The panel should be chaired by the Deputy Head (Research) or, in case the Deputy Head is unable to chair, by the Head of the Department. The chairman is to ensure that proper and fair examination procedures are observed. The panel should comprise one Thesis Committee (TC) member and another faculty member with domain expertise but is not on the TC. The Oral QE would be closed-door. The department has the discretion to invite the supervisor(s) of the student to observe the oral examination. The supervisor(s) can speak only with the permission of the chairman. In case the supervisor(s) are not invited to observe the oral examination, the panel should submit to the department a detailed report of evaluation and feedback on the thesis proposal and defense for communication to the student and the supervisor(s).
 - b. For unsatisfactory thesis proposal and defense, the oral examination panel has the discretion to allow the student a second (and final) attempt within 6 months. In case the student fails and no further attempt is allowed, the student may be readmitted to a Master by research program and required to submit a Master's thesis for examination within 6 months.
 - c. A maximum of two attempts QE Oral will be allowed. The second attempt to be made within 3 months after the first QE Oral. Students who fail their Qualifying Examination will be recommended to the Board of Graduate Studies to have their candidature terminated.

- B. The QE (Written) will be held twice a year, in February and July. If students could not make it on the assigned date, it would be delayed by 6 months.

- a) The PhD thesis is subject to 40,000 word limitation.
- b) The thesis is to be evaluated by 3 or more examiners (at least one external).
- c) Oral Defense upon satisfactory evaluation. The oral defense examination panel should comprise at least two of the thesis examiners and be chaired by the Deputy Head (Research) or, in case the deputy head is unable to chair, by the Head of the department. The supervisor(s) of the candidate may attend the oral defense as observers. At the oral defense the candidate is allowed up to 45-minutes to present his/her thesis work, an open Q&A session follows, where all participants may raise questions for the candidate to reply, before the oral examination panel examines the candidate. The panel may ask questions pertaining to the thesis work as well as general questions to ascertain the candidate's general knowledge relevant to his/her research work; the chairman has the right to intervene if, in his/her judgment, a question is inappropriate or irrelevant to the thesis oral defense. The chairman also has the discretion to dismiss the audience during the panel's examination if information deemed sensitive to intellectual property right protection will be involved.

MODULES FOR GRADUATE RESEARCH COURSEWORK

L6000 modules offered by the Department of Real Estate:

- RE6004 Research Methodology in Real Estate (offered in Semester 2)
- RE6005 Real Estate Economics Seminar (offered in Semester 2)
- RE6006 Real Estate Finance Seminar (offered in Semester 1)
- RE6007 Research Topics in Real Estate (offered in Semester 1)
- RE6008 Urban Planning and Development Seminar (offered in Semester 2)

Prerequisite for RE6005 and RE6006:

- RE6005: knowledge of basic econometrics and intermediate microeconomics are required
- RE6006: knowledge of real estate investment analysis is preferred
- Modules in business, economics, finance, statistics, sociology, geography etc pertinent to students' specialized area of research

Students are advised to discuss with the Deputy Head (Research) or their supervisors on which modules they need to take first before registering for any of the modules.

Registration of modules is done within the first two weeks of a semester.

GRADUATE ASSISTANTSHIP PROGRAM (GAP)

International students with NUS Research Scholarship who are admitted from AY2014/2015 are required to perform duties under the Graduate Assistantship Programme as set out in the table below.

Degree	Total Hours Required to serve during candidature
PhD	416 Hours for Research Scholarship holders 312 hours for President Graduate Fellowship recipient
2-years Master's by Research	156 hours

The table below sets out the maximum hours than can be clocked under the respective categories.

Mode of Clocking Graduate Assistantship Programme Hours (per candidature)	PhD	Master's (2-year)	Remarks
Teaching/Laboratory Supervision (max 100%)	Up to 416 (for RS) Up to 312 (for PGF)	Up to 156	Official office hours and preparation of the class can be taken into account. As a guide, preparation time taken for the assignment should not take more than half of the time required for the assignment.
Research Assistant duty, inclusive of research supervision (max 30%)	Up to 125 (for RS) Up to 94 (for PGF)	Up to 47	The quality of the research supervision or research assistant duty needs to be endorsed by the student's supervisor(s). No preparation time is to be clocked in this assignment. The research assistant duty should go beyond the scope of the research project undertaken by the student to fulfill the requirement of the graduate programme.
Other developmental assignments (max 20%)	Up to 83 (for RS) Up to 62 (for PGF)	Up to 31	Other assignments with developmental value approved by the Vice-Dean.
Total Hours	416 (for RS) 312 (for PGF)	156	

- Students are responsible for clocking sufficient amount of service hours per semester. The GAP Clocking Form is available from the department.
- At the end of each semester, the GAP Clocking Form should be endorsed by the Lecturer-in-charge and submitted to Yvonne at the General Office.
- Supervisors should monitor the GAP fulfilment when student performance evaluation is undertaken.

Further points to note about GAP

- A. The Scholar will not be paid any remuneration for the hours clocked under the Graduate Assistantship Programme
- B. The Scholar should work with the supervisor(s) on the plan to fulfill the required hours on a yearly (Academic) basis.
- C. The duties can only be clocked for work done and deemed satisfactory by the University.
- D. If the required hours are met according to the annual plan or the quality of the work done is unsatisfactory, the faculty or school can:
 - a. Reduce or withhold the stipend and/or the tuition fee subsidy, and/or suspend or terminate the Scholarship and/or
 - b. Withhold the transcript (both unofficial and official) and the student status letter until the requirements are met
- E. If the total required hours are not met by the time the thesis is submitted for examination, the Scholar will have his/her transcript (both unofficial and official) and student status letter withheld until the fulfillment of the requirement.

SDE RESEARCH DATA MANAGEMENT GUIDELINE

SDE adopts the Research Data Management (RDM) guidelines in support of the implementation of NUS Code & Procedures on Research Integrity and Research Data Management Policy.

RDM is to (i) ensure that valuable data are not lost, (ii) allow limited access to datasets with appropriate safeguards and permissions, (iii) provide a basis to answer allegations of research misconduct or questions about the results obtained, (iv) assist in the protection of intellectual property, and (v) assures auditors and industry that robust academic supervision is in place.

All on-going and new research projects and graduate research dissertations undertaken at SDE are required to submit the Research Data Declaration and Retention (RDDR) form upon project (dissertation) completion, to declare data sources employed in the research project and document any data uploaded for retention. Instructions for research data retention and admin support are provided in the RDDR form, which can be downloaded at https://intranet.sde.nus.edu.sg/portal/portal_graduate.phtml .

GUIDELINE FOR RESEARCH SUPERVISION

The main supervisor must be a faculty member of the Department of Real Estate.

MSc: the supervisor must be an Assistant Professor or above

PhD: the main supervisor who chairs the Thesis Committee must be an Associate or Full Professor. The thesis committee should have at least one member other than the supervisor(s). The thesis committee members can be from other departments/organizations.

SUPERVISOR ALLOCATION PROCEDURES

- Students are expected to write up a research proposal after firming up the research ideas preferably at the end of Year 1, no later than the end of the 3rd semester. The proposed supervisor and student are expected to reach a mutual agreement on supervision over the proposed topic.
- The proposal should not be more than 2 pages with double line spacing.
- The Department will decide on the final supervisor allocation.

ACADEMIC REVIEW

Scholarship funding is subject to annual review of student performance (and QE for PhD candidates).

Review is based on :

- CAP
- GAP progress
- Research Progress
- Academic and Work Attitude

Students may be asked to attend review discussions.

Unsatisfactory performance will be given warning and probation.

WORK DUTIES FOR STUDENTS WITH SINGAPORE CITIZENSHIP OR PERMANENT RESIDENT STATUS

Students may be required to assist the department in teaching, research or administration related work up to 6 hours per week without additional pay.

SOME IMPORTANT NOTES

LEAVE APPLICATIONS

Students are required to come to NUS to conduct their research work on normal working days. In case of being unable to come to school, students should provide proper documents and inform Yvonne by e-mail immediately. Students who are planning to go on leave (away from NUS locally or overseas) are to apply for leave, **at least, 2 weeks before the starting date with immediate effect.**

- Research Scholars
 - Research Scholars who are eligible for Holiday Leave should apply for their leave via [Student Information System](#) > Self Service > Leave Application > RS Leave Application.
 - Once you have returned from your leave, please report in person to Yvonne at the DRE General Office.
 - If you are on MC, please submit a copy of your MC to the department as well.
 - More information on leave matters, please refer to this link: <https://share.nus.edu.sg/registrar/student/info/Notes-for-Research-Scholars.pdf>

- Self-Finance & CSC Scholars
 - Please apply for short-term leave of absence via [Student Information System](#).
 - Once you have returned from your leave, please report in person to Yvonne at the DRE General Office.
 - If you are on MC, please submit a copy of your MC to us as well.

ATTENDANCE FOR RESEARCH SEMINARS ORGANISED BY DRE AND IRES

Attendance is compulsory unless you are able to provide proof to be excused eg medical leave.

You are also encouraged to attend the seminars, symposiums organized by other Faculty /Departments which will complement your research interests.

COMMUNICATION WITH THE DEPARTMENT

Please use your NUS email account to communicate with the Administrator. You are also required to access your account regularly.

ASSUMING FULL-TIME EMPLOYMENT

Any request to assume full-time employment before the submission of the thesis for examination will have to be approved by the supervisor and the Head of Department on an exceptional case by case basis. The RS will have to demonstrate satisfactory progress toward the completion of his/her thesis.

CONTACT INFORMATION

For further clarifications and enquiries, please contact:

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