

Salient Academic Regulations for Graduate School for Science and Engineering (GSSE)

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College of Engineering
College of Computer Science
College of Management Science

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1 Award of MS degree and Academic Deficiencies for MS studies

1.1 Eligibility

- a) Graduates in Engineering (Electronics, Electrical or Telecommunication), Sciences or Mathematics from HEC recognized institutions that have;
 - a. A minimum CGPA of 2.5 on a scale of 4.00 (or overall 60% marks) or equivalent
 - b. A minimum of sixteen years of schooling or 4 years (130 credit hours) after FA/FSc in the relevant discipline from HEC recognized institutions.
 - c. GAT general test conducted by the NTS, National Testing Service in the relevant discipline, must be cleared at the end of the first semester. Proof of passing the test before the first semester is a requirement for registration in the subsequent semester **.Not a HEC requirement any more. [1].**
- b) Interview and/or test conducted by the Institute.
- c) Meet all HEC stipulated requirements.
- d) GSSE may stipulate prerequisite courses to be completed by applicants not meeting the four year university level study requirements or not having the relevant background to bring them equivalent to the requisite HEC requirements.

1.2 Program Structure and Award of Degree Requirement

Total 30 credit hours have to be completed for the award of MS degree.

- a) MS Electrical Engineering with Thesis: 24 credit hour of course work i.e. 8 elective courses and 6 credit hour for thesis.
- b) MS Electrical Engineering without Thesis: 10 elective courses each of three credit hour.
- c) MS Computer Science with Thesis: 24 credit hour of course work. The course work consists of 12 credit hour of core courses and 12 credit hour of elective courses and 6 credit hour for thesis.
- d) MS Computer Science without Thesis: 30 credit hours of course work inclusive of 12 credit hour of core courses and 18 credit hours of elective courses. Each course is of three credit hours.
- e) Independent Study Courses. This is rarely offered.
- f) Minimum CGPA for the award of MS degree is 2.5.
- g) CGPA of 3.0 will be required to qualify for admission in PhD program (Effective form Fall 2013) [2].

1.3 Scheme/Duration of studies

- a) Duration: Two and half year (typical). Actual duration depends upon student's time contribution, course load, and student's performance. Normally students register for two courses per semester.
- b) Maximum time limit for the MS and M.Phil program is five years. Students who exceed the time limit will have to re-enroll in the respective program as a fresh student. [2]

1.4 Continuation of Registration

Continuation of registration requires students to register for at least three credit hours every regular semester (Spring and Fall).

1.5 Research during Masters Program (MS Thesis)

The structure defines the deliverables and their deadlines in accordance with the pre-announced dates in the academic calendar for semester monthly and final exams. The structured format allocates 6 credit hours of thesis across two courses of 3 credit hours each. Thesis has two phases Thesis-I and Thesis –II .

1.6 Thesis Rules

- a) The MS thesis committee will consist of the primary advisor and two other KIET PhD faculty members.
- b) Thesis has to be successfully defended in front of the MS thesis committee to complete the MS requirements.

1.7 Policy regarding Supervisor

Default supervisor is the GSSE college coordinator. Once the student is registered in Thesis/ Research Work then he/ she may select the supervisor according to area of Research / Thesis work. Reference: BASR 11th April, 2013.

1.7.1 Change of Supervisor

A supervisee can change the supervisor with the consent of the current supervisor. [2]. “Change of Supervisor” GSSE-103 form should be submitted to the concerned department.

1.7.2 Supervisor-Supervisee Conflict

- a) If a supervisor or supervisee decides to discontinue supervision, an email to this effect be sent to relevant program manager to initiate the process with a copy to college coordinator, head and dean.
- b) Relevant program manager and college coordinator are to work out the reasons for dissociation request and to submit a detailed report to head GSSE and Dean.
- c) Final meeting will be held amongst the supervisor, supervisee, Head GSSE and Dean. Despite all efforts if supervisee fails to attend the meeting then decision will be unilaterally taken.[2]

1.8 Courses from other institution

As per HEC policy, currently enrolled graduate students are allowed, to take up to two graduate-level courses from other institutions. This, however, must be done with the prior approval of the supervisor and the GSSE head[2].

1.9 Repetition of Courses

- a) Core courses have to be repeated if failed or requires improvement in grade.
- b) Failed elective course can be replaced by any other elective course.

1.10 Independent Study

The objective of the Independent Study (IS) courses is to enable the transition of students from teacher-taught courses to self-study courses. Independent study coordinators and advisors help the MS students through this transition phase. The Independent Study courses enable the students to design a self-study program of research and to follow it with self-discipline. Students are expected to identify an area of their interest, develop a program of independent study, and periodically report on the progress. Students are advised to select an area for independent study that would help and support their thesis/research work. A judicious selection of independent study areas can substantially reduce the thesis time. Detailed guidelines are available with the GSSE. Independent study course must be selected/registered by consulting the supervisor.

1.11 Semester Planning Form

- a) A student can register in any course (core, elective, independent study) through the submission of GSSE planning form (GSSE-101) to GSSE coordinator.
- b) The form must be signed by the student and then his supervisor.
- c) Generally the form has to be submitted every semester.

2 Award of PhD Degree and Academic Deficiencies for PhD studies

2.1 Eligibility

- a) A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- b) A minimum of seventeen years of schooling that corresponds to MS / M.Phil or equivalent degree from HEC recognized institutions.
- c) MS must be completed with 06 credit hours of thesis work. Candidates having MS degree without thesis will have to complete 06 credit hours of research based thesis before admission in the PhD program.
- d) GAT subject test conducted by the NTS, National Testing Service in the relevant discipline, must be cleared at the end of the first semester. Proof of passing the test before the first semester is a requirement for registration in the subsequent semester **.Not a HEC requirement any more. [1]**
- e) Pass interview and/or test conducted by the institute. Meet all HEC stipulated requirements.
- f) GSSE may stipulate prerequisite courses to be completed by applicants not meeting the five-year university level study requirements or not having the relevant background to bring them equivalent to the requisite university education requirements.
- g) PhD supervisor is appointed by the GSSE before giving admission.

2.2 NTS GAT Subject Test

Submission of NTS GAT result is mandatory by the end of the first semester. Grades earned in the first semester will be retained and they can get a transcript for those courses as well. However all these cases will be ineligible to continue studies at PAF-KIET without proof of passing relevant GAT. Institute may also have its own designed test, which may be named as aptitude test for the profiling and final selection of applicants [1].

2.3 Requirements for award of PhD degree

- a) PhD students require a minimum of 48 credit hours to complete the PhD degree requirements:
- b) PhD course work consists of passing six graduate level courses (18 credit hours) with a minimum cumulative GPA of 3.
- c) Dissertation work requirements consist of a minimum of 30 credit hours of research work.
- d) Pass Comprehensive Exam
- e) Pass PhD Proposal Defense.
- f) Acceptance or publication of at least one research paper based on the PhD research in an ISI Indexed journal.
- g) Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria.

- h) Open defense of PhD dissertation.
- i) Meet any other HEC requirement.

2.4 Doctoral Thesis Committee

On completion of the 18 credit hour coursework, a doctoral committee consisting of the primary supervisor and two other members is constituted to supervise the research and to ensure compliance to the HEC requirements. Planning form should be submitted to GSSE.

2.5 Coursework

- a) Students are required to pass six courses mostly from their relevant research area in strict consultation with their supervisor and the GEC Committee.
- b) These 18 credit hours should be the courses which have not been counted towards any other degree as in compliance with HEC Quality Assurance Criteria, courses counted towards any other degree cannot be double counted towards PhD coursework.
- c) The GEC may specify any other additional courses to be taken by the PhD student, if considered essential. These shall be notified as additional courses and shall not be counted towards calculation of CGPA. The same will be mentioned in the transcript.
- d) The CGPA will be calculated only on the basis of the 18 credit hours of courses taken by the student at the PhD level.
- e) To complete the coursework student may take graduate level courses from other HEC approved universities. The course should be approved by the supervisor and GEC Committee.
- f) Minimum passing grade is 'C'. CGPA of 3.0 is to be achieved to qualify for PhD degree. (Effective from Fall 2013 onwards) [2]

2.6 Students with non-thesis based MS[3]

MS student with course work would have to take 02 Independent Study Research Courses, in parallel to taught courses to acquire a sufficient proficiency in Research to aid in completion of his/ her thesis work. It is to the discretion of students' PhD Supervisor to advise student to take 02 research courses that will be in addition to the 30 Cr Hrs of Thesis Research Work.

2.7 Comprehensive Examination

- a) After successful completion of the 18 credit hour course work with CGPA of 3.0 [3] the student shall take a comprehensive exam. The syllabus for the examination will be decided by the supervisor in consultation with the GSSE Head.
- b) Students PhD Supervisor is responsible for the conduct of Comprehensive Examination and ensures that all academics/ HEC requirements have been fulfilled and the CGPA of

student's Course Work is clearly cited in 'DETAILS' Box of 'GSSE FORM-101'. A PhD student has to register in 'Comprehensive Examination Course ID' and MIS may be asked to put in a check that if the CGPA of a PhD student Course Work is less than 3.0, then the registration to be denied [3].

- c) Each student shall be required to pass the comprehensive examination. Pass marks for the examination shall be 60%.
- d) If a candidate fails in comprehensive examination, he shall be given another chance (in six months). If he still does not pass, his registration from the PhD program shall be cancelled.
- e) The exam can be open book/notes/internet, but can't be take-home and will always be invigilated. Duration can be from 03-05 hours. Supervisor must give clear exam paper instructions in writing; no verbal instructions to the contrary will be admissible [1]
- f) Internet can only be used for live searching and not for any live communication [1].

2.8 Transfer of credits

- a) A PhD student who gets transferred to KIET because his/her supervisor joins KIET as a full time faculty member from HEC recognized HEI/DAI will be given full credit for all the courses (taught or research) that he/she has undertaken during the time he/she has been a supervisee of that faculty member. However credits will be given only on the recommendation of the supervisor.[1]
- b) Upper bound for credit transfer is 33%.[1]

2.9 Courses from other institution

As per HEC policy, currently enrolled graduate students are allowed, to take up to two graduate-level courses from other institutions. This, however, must be done with the prior approval of the supervisor and the GSSE [2].

2.10 Credit for research work completed at national or international HEI [3]

A PhD student undertaking Research Work/ Study at a university abroad, the Institute's policy will be as follows:

- I. Travelling expenses (both ways) will be borne by the Institute, provided the PhD student is permanent faculty/ employee of PAF-KIET and the duration of research work spans over six months or more. This facility is applicable to both category of students who have signed an undertaking of 'OPTION-I or OPTION-II'.
- II. The award of credit to the research work completed at other university in terms of Cr Hrs to be counted towards Thesis Research Work/ Independent Study Courses shall be decided by the 'student's PhD Supervisor' in consultation with Dean Academics.

- III. Fee for the Cr Hrs counted towards Thesis Work (Research Courses) will be waived, applicable to both OPTION-I & OPTION –II students.

Students detailed to undertake Research work at other university abroad (or at any other city in Pakistan) would have to forgo their salary drawing at the Institute.

2.11 Proposal Defense

A student working towards the doctoral degree has to defend his/her research proposal. The proposal defense is conducted at the completion of student's course work. Advancement to candidacy is contingent on clearing the proposal defense.

2.12 PhD Candidacy

A student passing the PhD Proposal Defense is formally admitted as a doctoral candidate. Doctoral candidates must continually register in research course till they fulfill the PhD degree requirements.

2.13 Dissertation

With the approval of the doctoral Committee, GSSE office will submit the Dissertation to two foreign experts for evaluation. GSSE-106 form should be submitted to GSSE Head.

2.14 Academic Deficiencies

A student shall be dropped from the PhD degree program, under following circumstances:

- a) CGPA remains below 3.00 on completion of coursework even after availing three chances for improvements of grades.
- b) Fails twice in the comprehensive exam
- c) Fails to achieve the research objectives as set forth by his/her supervisor within the maximum allowed time.
- d) On disciplinary grounds when recommended by the Dean in consultation with the GSSE head, Supervisor and GEC Committee.
- e) Remains absent for 90 or more consecutive days without valid reason.

2.15 Evaluation of the dissertation and thesis defense

PhD candidate will appear in an Open Defense in which the candidate presents the Dissertation to the Doctoral Committee in which outside researchers and experts are invited for an independent evaluation. The dissertation defense is open to all.

2.16 Scheme/Duration of studies

- a) Duration: One and half year (typical). Actual duration depends upon student's time contribution, course load, and student's performance.
- b) Maximum time limit for the PhD program is seven years. Students who exceed the time limit will have to re-enroll in the respective program as a fresh student. [2]

2.17 Continuation of graduate studies[4]

- a) Continuation of registration requires students to register for at least three credit hours every regular semester (Spring and Fall), unless they take permission to put studies in abeyance, which can be given only once during MS and twice during PhD for a maximum duration of one year in each instance. GSSE 104 form should be submitted to GSSE Head.
- b) Status of students who don't register for a semester will be **"Inactive"** for one semester and will be converted to **"Dropped"** if they fail to register for two consecutive semesters.
- c) Inactive students will have to pay a fixed registration reactivation fee of Rs 15,000/- however they don't suffer from any academic penalty for example cancellation of courses.
- d) Once dropped, students will have to take fresh admission to continue. In such cases, giving credit to previously taken courses will be at the sole discretion of the expected supervisor in consultation with GSSE's relevant college coordinator.
- e) All the requirements of PhD degree have to be completed by the student within seven years of their registration including any duration of time spent in abeyance.

2.18 Policy regarding Supervisor [2]

2.18.1 Supervisor and Co-Supervisor

The supervisor has to be from PAF-KIET and should be a permanent faculty member. Based on the recommendation of the supervisor and the GEC committee a student may choose a co-supervisor in the relevant field. The co-supervisor can be from any other HEC recognized DAI/University.

2.18.2 Supervisor-Supervisee Conflict

- d) If a supervisor or supervisee decides to discontinue supervision, an email to this effect be sent to relevant program manager to initiate the process with a copy to college coordinator, head and dean.
- e) Relevant program manager and college coordinator are to work out the reasons for dissociation request and to submit a detailed report to head GSSE and Dean.
- f) Final meeting will be held amongst the supervisor, supervisee, Head GSSE and Dean. Despite all efforts if supervisee fails to attend the meeting then decision will be unilaterally taken.

2.18.3 Change of Supervisor

A supervisee can change the supervisor with the consent of the current supervisor. [2]. “Change of Supervisor” GSSE-103 form should be submitted to the concerned department.

2.19 Semester Planning Form

- d) A student can register in any course (core, elective, independent study) through the submission of GSSE planning form (GSSE-101) to GSSE coordinator.
- e) The form must be signed by the student and then his supervisor.

Generally the form has to be submitted every semester.

3 Admission procedure for MS and PhD/ Award of Fee Concessions

The application form for admission in MS/PhD is available at <http://gsse.pafkiet.edu.pk/apply>.

1. Selected candidates will be requested to appear in the GSSE aptitude test to be held approximately in July and November every year for Fall and Spring intake respectively.
2. Admission in MS Program will only be awarded when:
 - (a) GSSE Aptitude test is cleared
 - (b) GAT Subjective Test is cleared (result to be submitted by the end of final semester).
3. Admission in PhD Program will only be awarded when:
 - (a) GSSE Aptitude test is cleared
 - (b) GAT Subject Test is cleared
 - (c) Interview is cleared.
4. Students securing 70% or above and 80% or above in Entrance Test are given 30% & 50% fee concession respectively in first semester. In subsequent semester students are granted 30% or 50% fee concession if they secure Term GPA of 3.0 or 3.5 or above respectively.
5. Few scholarships are available on merit.

4 Support for Research and Development

4.1 Reward for an ISI-Indexed journal publication[4]

- a) Any one of the following three awards can be availed:
 - 1) A 03 credit hour relaxation in the teaching load to be availed in consultation with the college director.
 - 2) A cash reward of Rs 50,000/-.
 - 3) Research funding of Rs 150,000/- to be spent on conference participation, hiring research staff, buying software/hardware etc. Any assets purchased with the funding will be the property of the institution.
- b) For PhD faculty these incentives will be offered for their second and all subsequent ISI-Indexed publication in one calendar year.

- c) In case there are multiple authors from KIET, then the benefits will be equally distributed among the authors. The type of incentive will be decided by the first author from KIET in the list of authors.
- d) If the First author is not from the PAF-KIET or as a First author it is the First research Paper of KIET faculty, then the incentive for the 2nd and 3rd author will be Rs. 30, 000/- and 20, 000/- respectively. The incentive from 4th author onward in the list of multiple authors will be a fixed amount of Rs. 10, 000/-. The incentive for the 2nd and subsequent authors is subject to condition that their Research paper as First author has been published.
- e) If multiple authors from KIET include both faculty member(s) and students(s) then the type of incentive will be decided by the first author from KIET in the list of authors who is also a faculty member.

4.2 Support of conference participation for an author/invited speaker [1]

- a) For any cases of funding for author's/invited speaker's participation in an international conference in which HEC receives application for funding in time and rejects the funding application for non-technical reasons i.e. either without assigning any reason or due to unavailability of funds, KIET will support, subject to availability of funds, 75% of the registration and airfare charges (economy class ticket) up to a maximum of Rs, 100,000/-. KIET will bridge finance upto a maximum of Rs 150,000/- in case disbursement schedule of funds from HEC is causing delays in the travel plan of the faculty.
- b) For a faculty who has been invited to a local conference as an invited speaker, KIET will support up to a maximum of Rs 25,000/- to cover all expenses that includes, travelling, registration and boarding expenses.
- c) Every financial year up to four faculty members from CoCIS, CoMS and CoE each will be entitled for this support.
- d) Faculty from KIET's non-degree awarding colleges and department will be classified as faculty of one of the degree awarding colleges as per the recommendation of the Dean (Academics) for the purpose of support for conference participation.

4.3 Support for journal paper publication [1]

- a) If a faculty member is required to make a payment for his/her ISI Indexed research publication KIET will approve, subject to availability of funds, up to a maximum of US \$ 400 or equivalent after obtaining the proof of acceptance; however the payment will be made only after the publication is indexed and will be adjusted in the payments of any incentives for such publications.
- b) This benefit will be given to PhD faculty for their second or subsequent ISI-Indexed research paper for the calendar year [1].

4.4 Guest authorship [1]

In case there are multiple faculty members from KIET as authors of a journal paper, the first author of the paper should write a note to GSSE head giving details of contributions of individual authors. Academic credit will be given to all faculty members of KIET only after GSSE head receives the recommendation from the first author to that effect.

4.5 Remuneration for external supervisor [1]

- a) If the resident (main) supervisor moves out of KIET, another PhD faculty member of KIET whose research area matches closely with the PhD student will take over as the main resident supervisor.
- b) If none of the KIET PhD faculty member's specializations matches with the student's research area an external supervisor will be selected after the approval of the Dean (Academics) and GSSE Head. A resident (main) supervisor from KIET PhD faculty member will also be selected to manage the administrative /academic affairs at KIET.
- c) The institute will pay Rs 10,000/- per semester to the external supervisor. A proof in writing of a minimum five hours of meeting/discussion with the student is mandatory. The proof can be an email to the Dean (Academics).
- d) The doctoral committee members up to a maximum of three in number, be given a token honorarium of Rs. 5,000/- on the day of candidate's defense.

4.6 Dissertation review[1]

A remuneration of US \$ 100 will be given to the reviewer. The dissertation fees will be charged from the student. The remuneration will be payable after receiving the comments.

4.7 Faculty members pursuing MS Program [2]

KIET faculty members can only opt for thesis based MS program. All other students can register for course based MS program. Effective from Fall 2013.

4.8 Graduate Teaching Fellow (GTF) [4]

- a) GTF policy is equally applicable to all colleges. The awardees have to be full time student.
- b) The benefit for GTF includes monthly remuneration of Rs 25,000/- and full fee (tuition and all other fees included) waiver.
- c) Awardees will be required to teach an undergraduate course or lab with a maximum load of six (06) credit hours for teaching theory courses or a maximum of 4 credit hours (10 contact hours) for teaching labs only. Detailed job responsibilities are to be provided by colleges.
- d) Fellowships are offered for two years to MS students and for four years to PhD students and are subject to satisfactory performance to be assessed biannually both by GSSE and the relevant college.

4.9 Incentives for KIET faculty joining MS/PhD program[4]

These incentives' package has been introduced to increase the number of faculty members at KIET with PhD qualification; therefore those who are availing it for MS are expected to continue their studies to do PhD. Following two options are available:

OPTION 1:

- a) After meeting all admissions' requirements of the graduate program at KIET, faculty will be given three-credit hour reduction in the semester workload and full fee (tuition and all other fees included) waiver for 30 (in case of MS) or 48 (in case of PhD) credit hours.
- b) On successful completion of the graduate studies, faculty will be required to work for KIET for at least three (in case of MS) or four (in case of PhD) full semesters; however, they will be appropriately assessed and given promotion in accordance with the service rules then.
- c) Faculty is required to enroll for at least twelve credit hours of graduate courses every year.
- d) Faculty is not allowed to teach extra credit hours at PAF-KIET or any other institute/university till the completion of studies.
- e) The benefits of workload reduction and fee waiver are subject to the satisfactory progress of studies to be assessed biannually.
- f) Faculty members' progress reports should be sent by GSSE head to the relevant college director before November 15/July 15 for Fall/Spring semester to facilitate the colleges in their early planning of next semesters.
- g) Workload benefits will be given in consultation with the relevant college director.
- h) Faculty may opt to pay back all financial benefits at the fixed rate of Rs 10,000 per credit hour and may leave before or immediately after finishing graduate studies.
- i) In case of non-teaching staff, only full fee waiver will be given.

OPTION 2:

Existing 55% fee concession policy for PAF-KIET employees.

GSSE-105 form should be submitted to GSSE Head.

5 Appendices-GSSE Forms

6 References

- [1] KIET, "BASR Minutes of meeting held on 22nd July 2014," *Board of Advanced Research and Studies*, 2014.
- [2] KIET, "BASR Minutes of meeting held on 11th April 2013," *Board of Advanced Research and Studies*, 2013.
- [3] KIET, "BASR Minutes of meeting held on 15th July 2015," *Board of Advanced Research and Studies*, 2015.
- [4] KIET, "BASR Minutes of meeting held on 14th September 2012," *Board of Advanced Research and Studies*, 2012.