

## RULES AND REGULATIONS RELATING TO ACADEMICS AND EXAMINATION FOR POSTGRADUATE COURSES IN ENGINEERING

### Definitions:

- i) University means University of Engineering and Technology, Taxila.
- ii) "Vice Chancellor" means the Vice Chancellor of the University.
- iii) "Dean" means the Dean of the Faculty, wherewith a student of Postgraduate studies is registered.
- iv) "Chairman" means the Chairman of the degree awarding department, wherewith a student of Postgraduate studies is registered,
- v) "Student" means a student registered for the Postgraduate degree program of the University.
- vi) "Controller" means the Controller of Examination of the University.
- vii) "Academic year" means a year from 15 August to 14 August of the following year.
- viii) "Board of Postgraduate Studies" means the Board of Postgraduate Studies of the concerned degree awarding department
- ix) "Directorate of Advanced Studies, Research and Technological Development" means the Directorate of Advanced Studies, Research and Technological Development of the University.
- x) The general pronoun "he" and its derivatives imply either of Sex.
- xi) The university offers courses leading to the PhD degree & Master of Science in engineering hereinafter referred to as M.Sc. (Engg) in the disciplines/ specialization provided in the schedule and introduced from time to time.
- xii) A candidate for admission to the MSc degree course must hold a BSc degree in the relevant branch of Engineering or an equivalent qualification (sixteen years of schooling or 4 year education/130 credit hours after FA/FSc) recognized by the equivalence committee to be appointed by the Syndicate with minimum CGPA of 2.5/4.00 or 60% marks in BSc Engineering.

### 3.1 COURSES OF STUDY

The respective Board of Postgraduate studies/Board of Faculties shall submit the courses of study and syllabi for various degrees of the University to the Academic Council and the Syndicate for approval. Such courses and syllabi shall become effective from the date of approval by the Syndicate or such other dates as the Syndicate may determine.

### 3.2 ORGANIZATION OF TEACHING & RESEARCH

- a. Teaching and research in various courses shall be conducted in university departments through lectures, tutorials, discussions, seminars, practical work in laboratories, field work and other methods of instruction approved by the Academic Council. Medium of instructions will be English.
- b. Each student shall follow the syllabi and courses of studies as prescribed by the Academic Council/ Syndicate from time to time.
- c. The Boards of Postgraduate Studies of the Academic departments will normally meet in the first week of every Month during academic session to deal with matters pertaining to Postgraduate Studies.
- d. The Director Postgraduate Studies of the concerned academic department shall maintain all records pertaining to conduction of Postgraduate classes, course wise attendance of students in each semester and all other matters relating to postgraduate studies.
- e. Each postgraduate faculty member will maintain a Course File. All the academic details relevant to the course covered during the semester will be preserved in the file. The file will contain information on topics covered in the course, date-wise course plan, samples of quizzes, short tests, mid-semester tests, laboratory work, semester projects, final examination and student's grade list. The course file will be presented to the Vice-Chancellor at the termination of the semester for appraisal.

### 3.3 GENERAL

#### 3.3.1 Duration of Course

The minimum duration for completion of the Master's degree program (part and full time) will be 18 months (three semesters).

### 3.3.2 Academic Calendar

An academic year of the university comprises two semesters, each of eighteen weeks duration of teaching and research. The semester schedule including teaching, mid semester holidays and examination periods will be as under:

<b>Fall</b>	<b>:</b>	<b>15th July to 31st December</b>
<b>Spring</b>	<b>:</b>	<b>15th January to 31st June</b>

### 3.3.3 Requirements for the Degree of Master of Science in Engineering

MSc (Engg) degree will be awarded for successfully completing studies equivalent to 30 credit hours.

- i) The candidate will pass a minimum of eight postgraduate level courses (24 credit hours) and successfully complete postgraduate research thesis (6 credit hours).
- ii) In general, a student will be required to take at least five core courses (15 credit hours) from his choice of specialization called major area.

### 3.3.4 Transfer of Credit Hours

The Credit of a maximum of 3 courses studied and passed at a percentage of at least 70% or Grade-B at an institute recognized by HEC/PEC/NCEAC (National Computing Education Accreditation Council) may be transferred at this University and the affiliated institutions; provided that the subjects for which the student is applying for transfer must be read at other institution/university being a student of the same degree (M.Sc) in which he seeks admission before his transfer of credits is considered and that the concerned Board of Postgraduate Studies allows such transfer by assessing the relevance and contents of the subjects.

### 3.3.5 Semester Work Load

- a) A postgraduate course will comprise three credit hours per week. One credit hour will be equal to one class hour of lecture.
- b) A student can be registered for a maximum of three postgraduate level courses in a semester of enrolment for part time and four courses per semester for full time program.

### 3.3.6 Weekly Classes Schedule

Weekly postgraduate teaching/research schedule prepared by the departments and duly approved by the Vice-Chancellor will be announced one week prior to the commencement of a semester.

### 3.3.7 Pre-Requisites

At the time of enrolment in a degree program, the student's previous academic credentials will be assessed. In case, a deficiency is found at BSc (Engg) level, Chairman of the department may direct the student to take courses at the undergraduate level. In such a case, the student would be required to attend lectures in these courses and pass a test to be given by the teacher.

### 3.3.8 Improvement of Grades

The candidate can improve the course already passed with grade-C or less. He can also appear in new courses for improvement of his CGPA.

## 3.4 REGISTRATION OF COURSES

### 3.4.1 Academic Advisor

Immediately after joining Postgraduate program, the student will be assigned by the Chairman of the department an Academic Advisor for academic guidance and counseling. In consultation with his academic advisor, the student will prepare a tentative course plan on the prescribed form and submit to the Chairman of the department for approval.

### 3.4.2 Semester Courses

Courses to be offered in any semester will be approved by the Vice-Chancellor and notified by Directorate of ASR&TD at least two weeks prior to the commencement of the semester. The Board of Postgraduate Studies of the department shall recommend the courses along with names of course instructors.

### 3.4.3 Registration Procedure

- a) At the beginning of each semester, a student shall register for the courses being offered by the department on prescribed registration forms in line with the course plan.
- b) After approval of the registration, the student will deposit prescribed dues in the University Bank account duly countersigned by Director, PGS/Dealing Asstt., and submit the dues slip in the office of the Chairman of the department. This registration will be once in a semester and there will be no further registration at the time of end semester examination.
- c) A student can apply to the concerned Chairman for withdrawal of a course upto one month after the declaration of mid semester examination. In this case, the course will appear on the transcript with a 'W' grade and will not be counted towards GPA calculations.

### 3.4.4 Change in Courses

A student may change or drop the courses within 15 days from the commencement of the semester on the recommendation of Academic Advisor/Chairman of the department.

### 3.4.5 Registration Deadline

No registration or change in the courses will be allowed after 15 days from the date of commencement of the semester.

### 3.4.6 Registered Students List

- The Chairman of each department shall forward the registration forms along with dues payment slips to the Directorate of Advanced Studies, Research and Technological Development (ASR&TD) immediately after the last date of registration.
- The Directorate of ASR&TD will compile and forward the final list of registered students to all concerned on the prescribed form not later than 21 days from the commencement of the semester.

### 3.4.7 Re-enrollment

- If a student interrupts his program of study for a semester or more, Vice-Chancellor will allow re-enrolment of the student on the recommendations of the Chairman & Dean. If re-enrolment is allowed, the student will pay all the pending dues along with re-enrolment fee.
- If program requirements have changed during the period of interruption of studies, the student will be required to modify his degree program to ensure conformity to the latest version of the curriculum.
- Any such interruption shall not be allowed in first semester and a student who does not appear in the first semester examination shall not be eligible for re-enrollment. Such student can however seek fresh admission.

## 3.5 POSTGRADUATE EXAMINATIONS

### 3.5.1 Final Examination

- Final Examination shall be held during last week of each semester.
- The Controller of Examinations will notify the date-sheet of Final Examinations at least 21 days prior to the commencement of examination duly approved by Vice-Chancellor.

### 3.5.2 Eligibility and Attendance Requirements

- No candidate shall be admitted to Final examination of a semester unless he fulfills the following conditions:
  - He has registered for the courses of study as per registration rules.
  - He has been on the rolls of the university during that semester.
  - He has not been debarred for admission to the examination under any other regulation.
  - He has attended in each course in which he has to be examined not less than 85% of total number of lectures delivered, the periods of laboratory practical/design work during that semester in which the examination is held. The Dean of the Faculty may for valid reasons condone to the extent of 10% of deficiency in the above-mentioned percentage.
- The Controller of Examinations will be provided a list of registered candidates from the Chairman of the concerned Department at least two weeks before the commencement of end semester examinations.

### 3.5.3 Student Course Work Evaluation

- A student shall be evaluated in each course on the basis of final theory examination called Part-I and sessional work called Part-II.
- Final examination (Part-I) will comprise comprehensive theory examination to be held at the end of the semester.
- Part-II shall include quiz tests, home assignments, case studies, laboratory work, fieldwork, studio work, mid semester tests, term projects and presentation of case studies etc.
- The teacher who has taught the course during the semester shall normally be the Examiner for evaluation of examinations in Part-I and Part-II of that course.
- Distribution of Marks: The distribution of marks in each course will be as under:

		Marks
Pat-I	Final Comprehensive Theory Exam	40%
Part-II	Sessional Work	
	Mid-Semester Exam	20%
	Assignments, Labs/Field Work, Quizz etc.	20%
	Course Project, Case Study, Presentation etc.	20%
Total		100%

### 3.5.4 Grading System

- a) Students grades in a course shall be determined according to the percentages as described in the following table:

Percentage Marks Obtained	Grade	Grade Point
90% and above	A	4.00
Between 85% and 89.99%	A-	3.66
Between 80% and 84.99%	B+	3.33
Between 75% and 79.99%	B	3.00
Between 70% and 74.99%	B-	2.66
Between 65% and 69.99%	C+	2.33
Between 60% and 64.99%	C	2.00
Below 60%	F = Fail	0.00

- b) Computations of Grade Point Average (GPA)  
The Semester Grade Point Average (SGPA) will be computed as follows:

$$\text{Semester GPA} = \text{SGPA} = \frac{\sum (\text{Credit Hours/course})(\text{Grade Point earned in the course})}{\text{Total number of Credit Hours/Semester}}$$

Example:

Course	Grade	Points	Credit Hrs	Total Points
Course 1	A-	3.66	3	10.98
Course 2	B+	3.33	3	9.99
Course 3	C+	2.33	3	6.99
			9	27.96

$$\text{Semester GPA} = 27.96/9 = 3.1$$

- c) Cumulative Grade Point Average (CGPA)  

$$\text{CGPA} = \frac{\sum (\text{Credit Hours/course})(\text{Grade Point earned in the course})}{\text{Total number of Credit Hours in the Program}}$$

### 3.5.5 Pass Marks

The minimum pass marks for each course (Part-I and Part-II combined) shall be 60%. For award of degree, the CGPA should not be less than 2.5 for part time & 3.0 for full time.

### 3.5.6 Failure in a Course

- A student obtaining less than 60% marks in any course shall be deemed to have failed in that course and will be awarded F grade.
- If a student fails to appear in the final theory examination (Part-I) of a course on medical or any other reason, he shall be treated as absent and declared to have failed in that course with F grade.
- A student obtaining F grade in a course may register again only once for the course on the advice of Advisor/Chairman. Student will repeat both Part-I and Part-II of the course after registration.

### 3.5.7 Declaration of Results

Controller of Examinations will declare results within 3 weeks of the completion of end semester examinations.

### 3.5.8 Semester Transcripts

Controller of Examination will issue a transcript to each candidate appearing in the examination. The transcript will contain information about percentage marks obtained in the courses, corresponding grade, Semester GPA and Cumulative GPA.

### 3.5.9 Provisional Certificate

Degree and Provisional certificate will be issued to each successful student obtaining MSc (Engg) degree showing aggregate percentage marks and aggregate grade point average based on grading system as outlined in clause (3.5.4). The certificate will also embody the title of MSc (Engg) research thesis and area of specialization.

### 3.5.10 Checking of Answer Book

There shall be no re-evaluation of answer books of the final theory examination (Part-I). A student may, on payment of prescribed re-checking fee, get the answer books rechecked for totaling and for verification that all questions or parts thereof have been fully marked within 15 days of declaration of result. Errors or omissions, if any, shall be rectified.

## 3.6 RESEARCH WORK/ THESIS

### 3.6.1 M.Sc. Research Thesis

Each candidate for M.Sc. (Engg) degree must successfully complete postgraduate research thesis. The thesis should make a contribution to knowledge based on individual's original research work.

### 3.6.2 Submission of Research Proposal

The candidate must start the research work for his thesis during the 2nd semester of enrolment, in consultation with his prospective research supervisor. The research proposals will be submitted to the Director ASR&TD duly evaluated by the Board of PGS of the concerned department in the beginning of second semester (full time students) on the prescribed format.

3.6.3 Title of research/synopsis and the name of the Supervisor/ Co-Supervisor shall be approved by the Vice-Chancellor on the recommendations of the Board of Postgraduate Studies of the department. The department may recommend a Co-Supervisor if research is of multi-disciplinary nature and involves combining expertise from two or more departments/areas.

3.6.4 Minimum duration for a candidate to conduct research and prepare a thesis will be six months. This duration will start from the date of approval of research proposal by the Vice-Chancellor.

### 3.6.5 Submission of Thesis

- a) On completion of his research work to the satisfaction of the Supervisor/Co-supervisor, the candidate shall embody the results of his research work in a thesis according to a prescribed format, available at Directorate of ASR&TD written in English.
- b) Six typed copies of the thesis will be submitted to the Directorate of ASR&TD for the evaluation of thesis as per research schedule approved by the Vice-Chancellor.

### 3.6.6 Evaluation of Thesis

- a) A candidate must pass in all courses before thesis evaluation is undertaken.
- b) The candidate will give final seminar after completion of his MSc research work with the consent of his supervisor.
  - i) The final seminar of the research work may be open to other members of the academic community. The concerned Director, BPGS will notify the venue, date and time of the final seminar in consultation with the Chairman.
  - ii) The Board of PGS will recommend the evaluation of the thesis based on his final seminar of the research work.
- c) Evaluation of thesis will be done by the internal/s and external examiners. The Research Supervisor/ Co-supervisor will normally act as the Internal Examiner/s and the External Examiner will be appointed by the Vice Chancellor on the recommendations of the Board of Postgraduate Studies of the department. The Directorate of ASR&TD will notify the venue, date and time of Examination in consultation with the Internal Examiner/s.
- d) If a candidate, whose thesis has not been approved, will be permitted to revise his thesis. He will submit the revised thesis for evaluation within the time decided by the Examiners with in the prescribed maximum time limit for MSc. A candidate can appear in maximum three times for final examination as decided by examiners.
- e) If a candidate fails to submit his thesis/revised thesis within the approved period unless it is extended, on valid reasons, by the Vice Chancellor, his case will be referred to Board of Postgraduate Studies for dismissal from the program.
- f) After successful completion of thesis evaluation examination, the candidate will be required to submit six copies of thesis (alongwith soft copy) complete in all respects within the stipulated time of completion of MSc Engineering Degree Program.

3.6.7 The remuneration for research work Rs 4000/- per month per student for one year will be paid to MSc thesis supervisor of full time students starting from the date of approval of thesis proposal.

3.6.8 Full time students shall submit a paper in a HEC approved journal before their final thesis presentation/ seminar.

## 3.7 DISMISSAL FROM THE PROGRAM

- a) If a student obtains F (Failing) grade in more than one course at the end of first semester of enrolment, he will be dropped from the degree program.
- b) A student must maintain a semester grade point average (GPA) of 2.5 for part time & 3.0 for full time at the end of each semester to maintain satisfactory academic standing.
- c) In case semester GPA of student is less than 2.5, for part time the student will be placed on academic probation.



- d) If a student is placed on academic probation, Director Postgraduate Studies will issue him a warning letter. The Degree will not be awarded until the Cumulative GPA is greater than or equal to 2.5
- e) In case semester GPA of a full time student is less than 3.0 his admission will be cancelled.

### 3.8 CERTIFICATE OF MERIT

The Controller of Examinations shall issue a Certificate of Merit to a student, who obtains a cumulative GPA of at least 3.7 in his studies on the basis of the overall result, provided that the student has not failed in, or repeated any course and has completed all the degree requirements within prescribed time period of twenty four months.

### 3.9 CHANCELLOR'S MEDAL

The Vice Chancellor will award one Chancellor's Medal to a student from each faculty who obtains top most position in his session and completes degree within prescribed time period of 24 months.

### 3.10 MAXIMUM TIME LIMIT

A candidate for MSc (Engg) degree must fulfill all requirements for the award of MSc (Engg) degree within a period of four academic years from the date of admission in case of part time and two years in case of full time program.

### 3.11 EXTENSION

The Vice-Chancellor shall have the powers to grant extension up to a maximum of six (6) months to complete degree requirements in case of both programs in hardship cases on the recommendations of the Chairman & Dean through the Director, PGS. The extension fee of Rs. 20,000/- irrespective of the period of extension and program shall be levied in addition to normal Fee/dues.

### 3.12 POSTGRADUATE DIPLOMA

If a student fails to complete his MSc thesis within the stipulated time, but completes full course work of MSc Engineering, he will be awarded Postgraduate Diploma on the fulfilment of all other official requirements.

