

Bangladesh University of Textiles (BUTEX)

Tejgaon, Dhaka-1208, Bangladesh

ACADEMIC REGULATION FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD), 2023
[Approved by the Syndicate, Vide its meeting No: 77th, Date: 05-06-2023 on the recommendation of the Academic Council (Meeting no.: 66th, Date: 11-02-2023)]

1. Definitions

1.1 "Regulation" means the Rules and Regulations stated in this Academic Regulation;

1.2 "CASR" means the Committee for Advanced Studies and Research of the University.

1.2.1 The CASR shall consist of the following members:

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|---|---------------------|
| i) Vice-Chancellor/Pro- Vice-Chancellor | Chairman |
| ii) Dean of all academic Faculties | Member |
| iii) Two Professors having enough research experience to be nominated by the Syndicate, one from other University | Member |
| iv) Two teachers having enough research experience to be nominated by the Academic Council | Member |
| v) Two experts having PhD degree, at least one from the textile industry to be nominated by the Vice-Chancellor | Member |
| vi) Director (Research & Extension) | Member
Secretary |
| vii) Respective Supervisor/ Co-supervisor (by invitation) | |

1.2.2 At least 50% members will fulfill the quorum of the CASR meeting.

1.2.3 The term of office of the nominated members shall be three years. However, the existing members will continue their role until the recruitment of new members.

1.3 "EC" means the Executive Committee of any Faculty of the University to be formed and function according to the BUTEX Act 2010, Article 55(2)(2).

1.4 "DPSC" means the Departmental Postgraduate Studies Committee, formed under this Academic Regulation.

1.4.1 The DPSC shall consist of the following members:

i) Head of the Department having PhD degree. If Head of the Department does not have PhD degree, the senior most faculty member of the respective Department having PhD degree will act as Chairman.	Chairman
ii) All Professors and Associate Professors of the respective Department	Member
iii) One Professor from the relevant field from any other University to be nominated by the Vice Chancellor. The term of this nomination is three years; however, the term may continue until the recruitment of new member.	Member
iv) Supervisor / Co-supervisor	Member Secretary

1.4.2 At least 50% members will fulfill the quorum of the DPSC meeting.

1.4.3 DPSC is responsible for conducting the selection process of the PhD applicants.

1.4.4 The DPSC will meet from time to time (at least once a year) on the request of the supervisor to review the progress of the student based on the proposed work plan.

1.4.5 The DPSC will record the year-end progress and report to the CASR and the respective student.

- 1.5 "Equivalence Committee" means the Equivalence Committee of the University;
- 1.6 "Academic year" means 12 (twelve) months of an academic year;
- 1.7 "Semester" means 6 (six) academic months in an academic year;
- 1.8 "Provisional Registration" means the registration of the provisionally admitted PhD students;
- 1.9 "Final Registration" means the final registration of a candidate as a PhD student;
- 1.10 "Supervisor" means the full-time academic staff of BUTEX assigned for supervising the PhD student;
- 1.11 "TEC" means Thesis Evaluation Committee to be formed under this Academic Regulation to evaluate the PhD thesis.

11.1.1 The TEC shall consist of the following examiners/members:

i)	One Professor from outside the University	Convener
ii)	One expert having PhD from relevant field from outside of the country or from the industry/ research institution	Member
iii)	Supervisor	Member

- 1.11.2 The TEC will be proposed by the DPSC in consultation with the supervisor and send to the CASR for approval. In that case, the DPSC will propose a panel of members adding at least one alternative member for each place.
- 1.11.3 If any member of TEC is unable to accept the appointment or wants to relinquish his/ her appointment before the evaluation process, the Vice-Chancellor shall appoint another member from the proposed panel in his/her place.
- 1.11.4 The Vice-Chancellor may also appoint a fourth external examiner, in case of major contradiction to the external examiners' viewpoint. In that case, award decision will not be affected due to the dissenting opinion from one member.

2. Degree Offered

- 2.1 The degree, named Doctor of Philosophy (PhD) in Textile Science & Engineering will be offered by the Bangladesh University of Textiles (BUTEX), Dhaka under this Academic Regulation to a candidate subject to the fulfillment of academic requirements laid down in this Academic Regulation as well as the rules and regulations and other relevant regulations promulgated from time to time by the appropriate authorities of this University.
- 2.2 The PhD shall be offered by the University under the following Departments:
- i) Department of Yarn Engineering
 - ii) Department of Fabric Engineering
 - iii) Department of Wet Process Engineering
 - iv) Department of Apparel Engineering
 - v) Department of Textile Engineering Management
 - vi) Department of Textile Fashion & Design
 - vii) Department of Industrial & Production Engineering
 - viii) Department of Textile Machinery Design & Maintenance
 - ix) Department of Dyes & Chemicals Engineering
 - x) Department of Environmental Science & Engineering
- 2.3 Any other department may offer the PhD degree on approval of the Syndicate upon the recommendation of the Academic Council.

3. Admission

3.1 Eligibility criteria

- 3.1.1 The candidate must have at least 50% marks or a minimum CGPA of 3.0 out of 4.0 or its equivalent in B. Sc. Engg./ B. Sc. Tech/ 4-year B. Sc. or equivalent degree in the relevant branch from a recognized university.
- 3.1.2 The candidate must have a minimum CGPA of 3.0 out of 4.0 or its equivalent (minimum 60% marks) in M. Phil/ M. Sc. Engg. or equivalent degree in the relevant branch from a recognized Institution.
- 3.1.3 The Equivalence Committee formed (if necessary) by the Academic Council will take decision on the equivalency of a degree of other institutions.
- 3.1.4 Those who are in employment must submit their application through proper channel.

3.2 Admission procedure

- 3.2.1 Applications for admission to the above programs shall be invited before commencement of each academic year through regular means of advertisement and received by the Registrar of the University.
- 3.2.2 Qualified candidates are required to apply in a prescribed form provided by the office of the Registrar, BUTEX along with a preliminary Research Proposal, and a letter of recommendation (if possible) from the proposed supervisor (initially proposed supervisor by the candidate mentioned in the preliminary research proposal during application).
- 3.2.3 The Departmental Postgraduate Studies Committee (DPSC), after receiving the applications from the Registrar office, will conduct the selection process of the PhD students for provisional admission.
- 3.2.4 Before being selected for provisional admission, a candidate may be asked by the DPSC to appear at an interview.
- 3.2.5 The recommendation of DPSC along with other necessary documents of the selected candidates will be sent to the Registrar office, through proper channel, by the Chairman of DPSC for provisional registration as a PhD student. Then, the Registrar office will take necessary action for approval of CASR and Academic Council.
- 3.2.6 The selected candidates shall be provisionally registered with the University within the scheduled time limit on payment of the prescribed fees and other necessary formalities. The student will be charged a late registration @200Tk/day only. This extra fee will not be waived whatever be the reason for late registration.
- 3.2.7 After confirmation of provisional registration, the student will be asked to give a seminar (considered as 1st Seminar) in which the student will present his/ her research idea and work plan (based on the research proposal).
- 3.2.8 The provisionally registered PhD student shall be deemed for final registration as a PhD candidate, upon fulfilling the requirements, with effect from the date of his/her provisional registration upon the approval of CASR.

4. Status of the Student

There shall be two categories of PhD students, namely –

- a) Full-time: A full-time student shall not ordinarily be an employee of any organization; however, employees serving in different organizations may be registered as full-time student with prior permission from the concerned authority/ employer. A full-time student may be employed as teaching/ research assistant in this University.
- b) Part-time: Students serving in different organizations may be admitted as part-time student with a written consent from the employer.

However, a student may be allowed to switch from part-time to full-time or vice-versa on approval of CASR on recommendation of the respective supervisor through DPSC. Then the minimum and maximum duration of the remaining program will be calculated by the DPSC based on the *Article 5* of this Academic Regulation, which will be approved by the CASR.

5. Duration of the Program

- 5.1 The duration of Full-time PhD program will be minimum of 3 (three) academic years and maximum of 6 (Six) academic years from the date of provisional admission.
- 5.2 The Part-time PhD program will be minimum of 4 (four) academic years and maximum of 8 (eight) academic years from the date of provisional admission.
- 5.3 In special circumstances, the Academic Council of the University may allow a candidate more academic years on the recommendation of the respective supervisor to complete his/her degree.

6. Foreign Students

An eligible foreign student seeking admission to the PhD program shall submit application through the respective government agencies with a certificate of proficiency in English language. The admission shall be processed as per relevant regulations of the University.

7. Medium of Instruction

The medium of instruction of the PhD in Textile Science and Engineering program will be English.

8. Appointment of Supervisor and Co-supervisor(s)

- 8.1 Professor, Associate Professor, and Assistant Professor having PhD degree can supervise the PhD student.
- 8.2 The Supervisor must be a full-time faculty member belonging to the respective Department of BUTEX. However, on recommendation of the supervisor, a co-supervisor can be appointed from within/ outside the University (Local/International institution). A co-supervisor with appropriate experience may also be appointed (if necessary) from the Industry/ Research organization/ Recognized Laboratory.
- 8.3 In special circumstances and requirements, an additional co-supervisor may be appointed by the CASR on request of supervisor through the Chairman of DPSC.
- 8.4 Initially, the supervisor and co-supervisor(s) will be nominated by the respective DPSC for approval of CASR.
- 8.5 Supervisor has to be normally appointed within 3 (three) months of provisional admission of a PhD student. However, the co-supervisor(s) may be appointed when necessary, during the whole study program.
- 8.6 A supervisor or co-supervisor can supervise maximum 2 (two) students from each academic year but he/she cannot supervise more than 4 (four) students at a time.

9. Change of Supervisor(s)/ Title/ Area of Research

On recommendation of the DPSC, the Supervisor/ Co-supervisor(s)/ Thesis title/ Area of research can be changed (for any valid reason) by the CASR. In that case, the valid reasons must be attached with the recommendation of DPSC for the approval of CASR.

10. Academic Regulations

10.1 General conditions

- 10.1.1 There shall be two semesters in one academic year, and PhD students will be admitted once in an academic year.
- 10.1.2 A PhD student must complete a minimum of 64 credit hours of which 55 credit hours shall be assigned for Research and Thesis; and 9 credit hours (minimum) shall be assigned for Course Works.
- 10.1.3 The course curriculum of PhD study in a department shall be proposed by the respective DPSC and approved by the Academic Council on the recommendation of the Executive Committee (EC) of the respective Faculty.
- 10.1.4 In general, each PhD student will complete at least 3 (three) courses from the list below during the whole program period. However, compulsory courses must complete before getting the Final Registration as a PhD student.

Sl no.	Compulsory courses	Credits
1	Research Methodology and Scientific Writing	3
2	R&D and Innovation in Textile	3
Optional Courses		
1	Philosophy of Science and Research Ethics	3
2	Statistical Analysis and Data Management	3
3	Independent study	3

- 10.1.5 A PhD student may be required to complete more prerequisite credit / non-credit courses prescribed by the DPSC upon the recommendation of the supervisor. The number of courses and credits for the courses will be determined by the respective DPSC subject to the approval of Academic Council.
- 10.1.6 All of the courses (credit/ non-credit courses) completed by a student will be presented in his/her transcript.
- 10.1.7 Academic progress shall be assessed in terms of credit hours. One credit hour theoretical course shall require minimum 14 hours of face-to-face lecture during one semester while one credit hour of research/ thesis/ laboratory works shall require minimum 42 hours of research/ thesis/ laboratory works in a semester.

10.2 Grading system for Course Works

- 10.2.1 Numerical marks may be made in answer scripts, assignments or tests etc. for assessing the performance of the students in a course but all the final grading shall be made in letter grade/ grade point as follows:

Marks obtained (%)	Letter Grade	Grade Points	Merit description
≥90	A+	4.0	Excellent
≥80 but <90	A	3.5	Very good
≥70 but <80	B+	3.0	Good
≥60 but <70	B	2.5	Average
≥50 but <60	C	2.0	Pass
<50	F	0.0	Fail
	I	-	Incomplete

However, the grading of Seminar will be Satisfactory/ Unsatisfactory.

10.2.2 The Grade Point Average (GPA) shall be computed for each semester as follows:

$$GPA = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$

where, n is the number of courses passed by the student during the semester, C_i is the number of credits allotted to a particular course, and G_i is the grade point corresponding to the grade awarded for that course.

10.2.3 The overall or Cumulative GPA (CGPA) gives the cumulative performance of the student from first semester up to any other semester to which it refers and is computed by dividing total grade points accumulated up to the date by the total credit hours.

10.2.4 Both GPA and CGPA will be rounded off to the second place of decimal for reporting.

10.2.5 The course(s) in which the student gets F grade shall not be counted towards credit hour requirements and for the calculation of Grade Point Average (GPA).

10.2.6 The 'B and C' grades, up to a maximum of two courses, may be ignored for calculation of CGPA at the written request of the student to the Chairman of the respective DPSC on the recommendation of supervisor provided that the student has fulfilled the total course credit hour requirements in the remaining courses with a minimum GPA of 3.0.

10.2.7 Maximum 2 (two) courses may be repeated for improvement with the prior approval of the DPSC of the Department on the recommendation of the supervisor.

10.2.8 When a course is repeated for improvement, better grade shall be counted for the calculation of GPA.

10.2.9 The performance in all the courses including all the 'F' grades shall be reflected in the transcript of the student.

10.2.10 Grade 'I' is given only when a student is unable to sit for the examination of a course at the end of the semester because of circumstances beyond their control. To get 'I' grade he/she must apply to the Head of the Department through the respective course teacher within one week after the examination of the respective course.

10.2.11 If a student obtains "F" or "I" grades in any courses in the theoretical courses he/she must complete all these courses within first 3 (three) academic years.

10.2.12 A student has the rights to withdraw from a course/semester within 2 (two) working weeks of the commencement of the semester or else their grade in that course shall be recorded as 'F' unless he/she is eligible to get a grade of 'I'. A student with valid reason may be permitted to defer their study for maximum two semesters in the whole study period with the approval of DPSC subject to the recommendation of the supervisor.

10.3 Conducting the Examinations

10.3.1 For the theoretical courses, there are two types of assessment – formative and summative. The formative assessment may consist of class participation, assignment/ term paper, mid-term exam, and presentation, etc. and summative assessment consists of a course-end final examination. The final grade in a theoretical course shall be based on the performance of formative and summative assessments.

The distribution of marks for assessment will be as follows:

Sl no.	Assessment type	% of Marks
1	Class participation	10
2	Assignment	10
3	Presentation	10
4	Mid-term exam	20
5	Final exam (Written test)	50

10.3.2 The marks for class participation will be awarded according to the following distribution:

Class participation (%)	Marks
≥ 90	10
85 to 89	9
80 to 84	8
75 to 79	7
70 to 74	6
65 to 69	5
60 to 64	4
< 60	0

10.3.3 The respective course teacher will be solely responsible for the performance evaluation of a student in a course by conducting the assessments. However, the course-end final exam may be arranged centrally. In that case, Head of the Department, with the help of Controller of Examinations, will take necessary action for conducting the course-end final examination consulting with the respective course teacher.

10.3.4 The course teacher will announce the final grade of the course within three weeks from the date of the course-end final examination of that course and will also submit the copy of the marksheet to the Chairman of the DPSC and the Controller of Examinations for keeping the records up-to-date.

10.3.5 After successful completion of Course Works stated in the *Article 10.1.4*, the Chairman of the DPSC, on recommendation of the supervisor, will call 2nd Seminar for the PhD student. In this seminar, the student will be asked to present detail plan of the research (literature review, methodology, progress milestone, etc) before the audiences. If a student fails to satisfy the DPSC in terms of knowledge in the field of study and merit of the research, he/she shall be given one more chance to appear at another similar seminar as scheduled by the respective DPSC.

11. Final Registration

A provisionally registered student shall be deemed to be eligible for final registration as a PhD student, upon the approval of CASR, with effect from the date of his/her provisional admission. The following requirements must be fulfilled for final registration as a PhD student:

- Passing the Course Works with minimum GPA of 3.0 stated in the *Article 10.1.4*
- Satisfactory progress report by DPSC on 2nd Seminar
- Approval records of Research Proposal by CASR

12. Collaboration with other Organization

If any student wants to work in an Industry/ Research organization/ Recognized Laboratory or other Universities/ Department of University, a tri-party agreement between the Student, the Supervisor or Head of the Department, and the Industry/ Research organization/ Recognized Laboratory/ University/ Department of University has to be submitted to office of the registrar.

13. Progress Evaluation

- 13.1 The supervisor will evaluate the study and research progress of the students based on the set milestone/ work plan proposed in the Research Proposal.
- 13.2 The student will submit the progress report to the supervisor at the end of each semester, at least once in each academic year.
- 13.3 The Chairman of the DPSC, with the help of Supervisor, will arrange 3rd seminar to evaluate the overall progress of the candidate.
- 13.4 Upon the satisfactory progress of the student, the Chairman of the DPSC in consultation with the Supervisor will propose the TEC along with the Final Progress Report, and a Synopsis of the thesis to the CASR for approval.

14. Thesis

- 14.1 At the end of the research works, on the advice of the supervisor and DPSC, a candidate for the PhD degree must submit his/her thesis embodying the results of the research work following the style and format approved by the University. The thesis should be an original contribution to textiles and worthy of publication.
- 14.2 The student shall have to declare that he/she has carried out the project/ research work and it not been submitted elsewhere for any purpose, except for publication, duly countersigned by the supervisor(s).

15. Thesis Evaluation

15.1 Submission of thesis

On the approval of supervisor(s), a PhD candidate will submit his/her thesis (soft binding duly signed by the supervisor) along with minimum of 2 (two) publications (published in peer-reviewed journal of which one must be published in Scopus Indexed journal with good impact factor) to the Head of the Department.

15.1 Thesis evaluation process and final defense

- 15.1.1 The CASR will normally form a Thesis Evaluation Committee (TEC) for final evaluation of the thesis unless there are any remarkable deficiencies found. The Controller of Examinations will issue the recruitment letter to the TEC members as the examiners.
- 15.1.2 The Convenor of the TEC with the help of the supervisor and the Head of the Department will take necessary steps to proceed the final evaluation.
- 15.1.3 The copy (hard or soft) of the submitted thesis will be sent to the TEC members by the Head of the Department/ Supervisor at least one month prior to the defense date.
- 15.1.4 On receipt of the satisfactory report from the TEC members, the final defense shall be arranged on a date or dates fixed by the Convenor of the TEC in consultation with the other members. The candidate must be informed formally at least 2 weeks prior to the date of thesis defense.
- 15.1.5 The final defense will be composed of two parts: (a) Presentation and, (b) Viva-voce. Presentation part is open for all. After the first part, the TEC will conduct the Viva-voce.

15.1.6 The student must satisfy the TEC that he/she is capable of intelligently applying the results of his/her research to the solution of the problems and of undertaking independent research work. Besides he/she should show the evidence of satisfactory knowledge related to the theory and technique used in his/her research work.

15.1.7 The TEC can recommend any change in the thesis title that has to be approved by the appropriate body before publishing of the final result.

16. Thesis Grading System

16.1 The TEC will recommend the candidate's thesis based on the following criteria:

Sl No.	Recommend criteria	Remarks
1	Satisfactory with no correction	-
2	Satisfactory with minor corrections	Will be Re-submitted by 1 month
3	Satisfactory with major corrections	Will be Re-submitted after 6 months but before 12 months
4	Unsatisfactory	Will be Re-submitted after 1 year but before 2 years
5	Rejected	May Recommend for MPhil/ MSc/ MEngg.

16.2 For the "Unsatisfactory" report, the candidate, after fulfilling the observations and suggestions provided by the TEC, will appear the defense again.

16.3 The Chairman of the TEC will send the Evaluation report (signed by at least three members of TEC) to the Controller of Examination in a sealed envelope. On the other hand, the Chairman of the DPSC will send the progress report of 1st, 2nd, and 3rd seminar to the Controller of Examinations.

17. Qualifying Requirements for Award of PhD Degree

The requirements for awarding a PhD degree:

- i) A student must have to complete a minimum of 64 credits of which 55 credits hours shall be assigned for research and thesis
- ii) The student must obtain a minimum CGPA of 3.0, and not obtained two or more "F" grades in the examinations of the theoretical courses.
- iii) Satisfactory Progress report of 1st, 2nd, and 3rd Seminar
- iv) At least 2 (two) publications (published in peer-reviewed journal of which one must be published in Scopus Indexed journal with good impact factor).
- v) Recommendation of the Thesis Evaluation Committee (TEC)

18. Submission of the Final Copy of the Thesis

After successful completion of the thesis evaluation, the candidate must submit required numbers (at least 5) of copies of the thesis in final form (prescribed book binding), with the approval of supervisor, to the chairman of the DPSC.

19. Result Publication

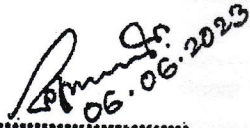
After receiving all the documents stated in the *Article 17* and the book bonded final thesis, the Controller of Examination will publish the final result upon the approval of Vice Chancellor subject to the approval of Syndicate on recommendation of Academic Council. The Controller of Examination will keep all the records and take necessary steps to publish the result of successful candidate.

20. Transcript

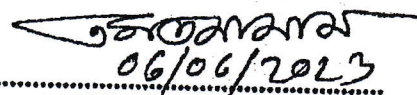
A transcript in the prescribed format showing the cumulative performance of the student in the course works shall be issued by the Controller of Examinations at the completion of comprehensive examinations and theoretical courses.

21. Removal of Unspecified Problems

Anything not covered in this Academic Regulation will be referred to and decided by the CASR or Academic Council, and Syndicate (if necessary).

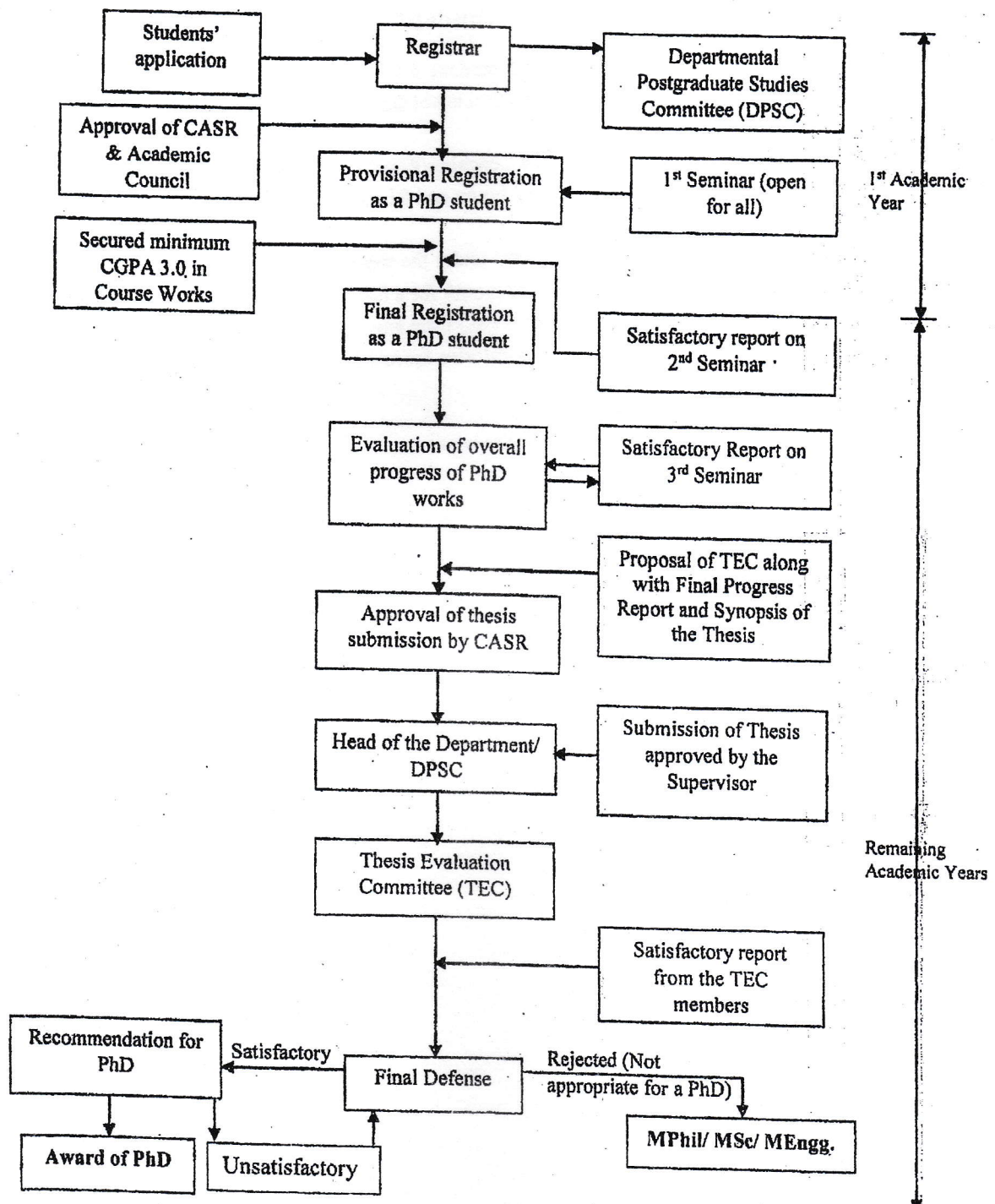

06.06.2023

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(Kabari Majumder)
Registrar (In-charge)


06/06/2023

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(Prof. Dr. Shah Alimuzzaman)
Vice-Chancellor

Key stages of PhD program at BUTEX



Facilities of a PhD Student

To boost up the research activities and publications, a PhD student may receive the following facilities depending on the availability of the resources. However, this section is not the part of the Academic Regulation for the PhD program at BUTEX.

- Opportunity of paid Teaching/ Research assistance. As a Teaching/Research Assistant, a full time and a part-time PhD student can conduct maximum 12 hours and 8 hours of classes and laboratory works in undergraduate program per week, respectively.
- Opportunity to be a Research Assistant in a research project under the supervisor.
- University may provide stipend of Tk 10,000 – 20,000 per month for a full-time PhD student who is not receiving any financial facilities (salary/scholarship/grants etc.) from any organizations.
- Opportunity to work with reputed textile industry and laboratories for real-life experience.

Regulations for Split/Collaborative Postgraduate Program at BUTEX, Dhaka

To carry out a split/collaborative postgraduate program such as PhD a prior MoU, between BUTEX and any reputed external (local/international) organizations/institutions as recognized by CASR, BUTEX, should be signed. Aligning with the BUTEX Act 2010 and the other rules and regulations of the University, the following amendments and conditions shall be included in the Academic Regulation of PhD Program at BUTEX:

- i) The degree awarding authority shall be Bangladesh University of Textiles (BUTEX). However, joint name could be considered on the prior acceptance from CASR and Academic Council. In that case, this must be clearly stated in the MoU.
- ii) The main supervisor must be from BUTEX, and the co-supervisors could be from industry/ organizations/ institutions upon the approval from CASR, BUTEX.
- iii) With understanding and agreement by the DPSC on the recommendation of the supervisor, the PhD student can fulfill most of the research works remotely depending on the nature the research project.
- iv) The student must present his/her research progress over the DPSC at least twice a year.
- v) Anything new or not covered in this Academic Regulation will be referred to and decided by the CASR or Academic Council.
