

Dhaka University of Engineering & Technology, Gazipur



Information Booklet for Postgraduate Program

Department of Civil Engineering

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Disclaimer

The Department of Civil Engineering and the Dhaka University of Engineering & Technology, Gazipur reserve the right to make, at anytime without notice, changes in and addition to degrees/programs, courses, regulations, conditions governing the conduct of students, requirements for degrees, fees and any other information or statements contained in this booklet. No responsibility will be accepted by the University or the Department of Civil Engineering for hardship of expenses encountered by its students or any other person or persons because of such changes.

Department of Civil Engineering
 DUET, Gazipur.

Foreword

This booklet is published for the guidance of postgraduate students of the Department of Civil Engineering. It is also equally important for providing valuable information to the Faculty Members and others interested in the postgraduate activities of this Department.

General information about this University, its historical background, faculties and teaching departments, administration and list of Faculty members in the Department of Civil Engineering are provided in this handbook. This handbook also provides the academic ordinance, ordinance relating to discipline, detailed course outline for the postgraduate students of the Department of Civil Engineering.

The information herein may be changed or modified from time to time by the appropriate authority of this University to meet the advancement of science, technology and sustained adaptation. Such changes or modifications will be informed to the students by the authority of the University. However, the students are strongly advised to be in touch with their advisors regarding any enquiry of this booklet and modifications or changes that may be introduced by the University at any later stage.

I would like to acknowledge the endeavours of the editorial committee of this booklet and of my colleagues, who had been involved in preparing this booklet. I am also grateful to the Honourable Vice-Chancellor of DUET, Gazipur for extending financial supports in favour of this publication.

Thanks,

Head
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DUET, Gazipur.

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About The University

The University

The University started its operation in 1980 as College of Engineering at its temporary campus at Tejgaon, under the University of Dhaka and used to offer a four-year Bachelors degree in Civil Engineering, Electrical and Electronic Engineering, Mechanical Engineering to meet the growing need for advanced engineering education in Bangladesh. After a short span of time, College of Engineering was renamed as Dhaka Engineering College in 1981. Dhaka Engineering College shifted to its present campus at Gazipur City in 1983. Dhaka Engineering College was promoted to Bangladesh Institute of Technology (BIT), Dhaka as a degree granting Institute under the Government ordinance in 1986 to overcome various problems it had been facing since its inception. BIT, Dhaka was changed to a full-fledged University as "Dhaka University of Engineering & Technology (DUET), Gazipur" since 1st September 2003. The University administration is largely defined and determined by the University Act (Dhaka University of Engineering & Technology, Gazipur Act, 2003). DUET has ultimately turned into an Institution that can now boast its commitment to quality engineering education and already has earned a good reputation across the globe for the quality of its graduates. So far, it has produced around 6,424 graduates in different branches. The curricula of DUET address the needs of the present and the future through its Undergraduate and Postgraduate programs.

There are four Faculties namely Faculty of Civil Engineering, Faculty of Electrical and Electronic Engineering, Faculty of Mechanical Engineering and Faculty of Engineering. Faculty of Civil Engineering comprises the Department of Civil Engineering (CE) and Department of Architecture (Arch.). Faculty of Electrical and Electronic Engineering comprises the Department of Electrical and Electronic Engineering (EEE) and Department of Computer Science and Engineering (CSE). Faculty of Mechanical Engineering comprises the Department of Mechanical Engineering (ME), Department of Textile Engineering (TE) and Department of Industrial & Production Engineering (IPE), Department of Food Engineering (FE). Faculty of Engineering comprises the Department

of Chemistry (Chem.), Department of Mathematics (Math), Department of Physics (Phy), Department of Humanities and Social Sciences (HSS) and Department of Materials Science & Engineering (MSE).

There are three institutes namely Institute of Water & Environmental Sciences (IWES), Institute of Information & Communication Technology (IICT), Institute of Energy Engineering (IEE) and a research center namely Center for Climate Change & Sustainability Research (3CSR).

Currently, Undergraduate Degrees (B Sc. Engg. and B Arch.) and Postgraduate Degrees (M Sc. Engg., M Engg., M Sc., M Phil. and Ph. D) are offered at the University.

Location

The University has 22.29 acre campus area and is located along BIDC road in Gazipur District, which is 40 km north of Dhaka. Gazipur town is well-connected by roads and railway track with Dhaka and other cities of Bangladesh. The Gazipur city can be reached from the capital by bus or train in about 2 hours. Public bus service is also available from DUET main gate.

Campus

DUET, Gazipur has a compact campus with a library, auditorium, residential halls, central mosque and residential accommodation for teachers and employees. Bank and post office are also located in the campus.

Climate

Bangladesh generally enjoys a sub-tropical climate. The three prominent seasons are winter, summer and monsoon. The warmest days in Dhaka region are between April and June with temperature ranging from 25 °C to 37 °C. Winter temperatures usually vary between 10 °C to 20 °C.

Accommodation

Most undergraduate students live on campus with a few exceptions that commute from home. DUET has six residential halls of which one is for female students. The residential halls are Dr. Fazlur Rahman Khan Hall



(Dr. F. R. Khan Hall), Dr. Qudrat-e-Khuda Hall (Dr. Q. K. Hall), Shaheed Muktijoddha Hall (S. M. Hall), Kazi Nazrul Islam Hall (K. N. I. Hall), Shaheed Tajuddin Ahmad Hall (S. T. A. Hall) and Madam Curie Hall (M. C. Hall) - the only hall for female students. Each residential hall has indoor game facilities, Library, spacious TV room and necessary setup. Accommodation capacity in each of the residential halls is given below:

Sl. No.	Students Halls	Seat Capacity
1.	Dr. Fazlur Rahman Khan Hall	124
2.	Dr. Qudrat-e-Khuda Hall	128
3.	Shaheed Muktijoddha Hall	124
4.	Kazi Nazrul Islam Hall	414
5.	Shaheed Tajuddin Ahmad Hall	204
6.	Madam Curie Hall	140
7.	Total	1134

Non-residential students are also to be attached with a hall, so that administrative control on students becomes hall based. Two to four students have to share a room depending upon the size of the room with common shower and toilet. All rooms are furnished and well-ventilated. All residential halls are equipped with modern recreational facilities like cable TV, common room, prayer room, reading room and library.

Food and Stationaries

Each residential hall has its own cafeteria, which serves two meals per day. Each cafeteria is maintained by respective hall authority. Students are also involved for their daily menu. Special feasts are arranged on different occasions in the hall cafeteria. One annual colorful dinner is also arranged in each hall in honor of outgoing students. All Heads, Heads of the Institute, all Departments, Provosts, Assistant Provosts and many other faculty members are invited to enjoy the dinner. Besides this residential hall cafeteria, there is a big central canteen that offers breakfast and snacks. Moreover, in Gazipur town, there are lots of posh restaurants which serve a wide variety of foods including oriental and western flavor. A departmental Store is also housed in the old academic building for the benefit of all campus residents.

Sports and Entertainment

The university has physical education center that provides the facilities for football, cricket, volleyball, basketball, table tennis, etc. The students play badminton and other games as well. Regular sports meet and games competitions are important features of the campus life. The students frequently arrange debate, cultural program, film show, indoor games competition, etc. Moreover, there are several organizations such as DUET Debating Society, DUET Robotics Club, DUET Computer Society, English Language Club, DUET Sporting Club, DUET Chess Club etc. for fostering various extracurricular activities in the campus.

Library

The university devotes a considerable effort and resources to the development of an outstanding library with a large collection of books and journals to meet the expanding need of teaching and research and to serve as a resourceful reference center. The general library has over 25000 titles on all subjects relevant to academic program. Library service includes lending, reference, photo-copying and document delivery service. The library has a computerized information system to provide information about library materials for its members. All library services are available to faculty and students. Except for certain designated official holidays, the library remains open from 9:00 AM to 8:30 PM daily. Besides, each academic discipline maintains a rental library from which students can borrow text books at a nominal rate for the whole semester.

Computer Facilities and Information Technology

Computing gets its utmost priority at DUET. All departments, offices and residential area are interconnected through LAN of fiber-optic backbone. The university is now enjoying the high speed Internet connection along with Wi-Fi networks. Central e-mail server and web server are dedicated for maintaining electronic communication inside as well as outside the university. This rich computing environment facilitates learning, teaching, research, and administrative purposes. Campus wide fiber-optical cables network has already been established.

For meaningful contribution to the national development in the field of Information Technology (IT), DUET has established a director office named Office of the Director (Computer Centre).



The Computer Center has the following aims and objectives:

- i. To design and maintain the development of IT infrastructure in the campus.
- ii. To provide conducive environment for computing to facilitate learning and research activities.
- iii. To develop human resources in IT sector and arrange various training programs for the students and staff.
- iv. To pursue advanced research actively in IT in order to develop knowledge-based products and services.
- v. To establish joint collaboration with the reputed organizations in IT sector and to provide their certification programs.

Medical Services

The university has a well-equipped four bedded medical centre with a number of competent medical officers and supporting staffs within prescribed limits. Medical centre is situated on ground floor of the central library building. Director (Students' Welfare) and chief medical officer give the valuable advice for the development and improvement of medical centre as well as healthcare services at this university.

The university medical centre provides different healthcare facilities to the residential and non residential students and staffs to meet physical and mental fitness. Students are given free out patient prescription with necessary medicines free of cost. Teachers, Officers, Employees are given only free prescription and disease related valuable advice in the medical centre. All kinds of minor operations are performed under local anesthesia in the medical centre. Medical centre also arranges annual blood donation and vaccination programs. Students are given general knowledge about primary healthcare system, preventive and social medicine. In case of complicated surgical and medical emergency, doctors identify the cause of disease and refer urgently to the district Sadar Hospital, Gazipur and Dhaka Medical College Hospital for further investigations and better management. However, the university medical centre does not bear the cost of treating injuries that are sustained outside the Campus.

Transportation

For the convenience of the students, faculties, officers and staffs DUET, Gazipur operates its own shuttle bus service between Dhaka city and the

campus. In weekends, special services are also provided for meeting the weekend recreational and other needs.

Students' Welfare

The Director of Students' Welfare is responsible for the various activities related to the physical, social, cultural and other aspects of welfare of the students. These include arrangement of supervision for halls of residence, cultural weeks and other activities of the students through the central students union and the students unions of the various halls of residence.

Central Students' Union

The purpose of the Central Students' Union is to promote the interests and welfare of the student body and to promote awareness of the healthy atmosphere on the university campus. The students' union also helps to provide an opportunity for everyone to mix with fellow students from different parts of the country and appreciate their cultures. All full-time students are members of the Central Students' Union, and are entitled to vote in the election of the unions governing body.

The Students' Unions of the various hall of residence also arrange their individual socio-cultural activities, literary competitions etc. and help the hall management to run the halls smoothly.

Administration

University Administration is mostly defined and determined by the University Act (Dhaka University of Engineering & Technology, Gazipur Act, 2003). According to the University Act Syndicate is the supreme authority in supervising and controlling all the activities of the University and major policy making, approving recommendations of all subordinate bodies. It also exercises its common controlling power through the Vice-Chancellor by formulating and implementing Act, Statutes, Rules and Regulations of the University.

The Syndicate is the principal executive body of the university and it consists of 16 members. The Academic Council, the Finance Committee (FC), the Planning & Development (P&D) Committee, the Committee for Advanced Studies and Research (CASR), etc. assist the Syndicate by recommending rules and regulations and other decisions as per need of the University.



The Academic Council is the supreme authority for matters related to Education and Research. It exercises its common controlling power by formulating Academic Rules & Regulations and controlling all Academic activities and Research through Faculties, Departments, Academic committees, CASR, committee relating to discipline etc. It also recommends necessary Rules and Regulations (Proposed) before the Syndicate for final approval.

The Vice-Chancellor is the chief executive of the academic, administrative and financial activities of the university. The Chancellor of the university (honorable President of the People's Republic of Bangladesh) appoints the Vice-Chancellor for a four-year term. He is responsible for all of his activities to the Chancellor. According to University Act, Vice-Chancellor is the Chairman of Syndicate, Academic Council, Finance Committee, Planning and Development Committee and all Selection Boards. He exercises his common controlling power over all the Faculty, Departments, Directories, Offices, Halls and different Sections through Deans of the Faculties, Heads of the academic departments, Registrar, Directors of offices, Controller of the Examination, Provosts of the residential halls, Chief Engineer, Chief Medical Officer, Comptroller, Librarian, and other Heads of different Sections.

Registrar is the residential Officer of the University. He is the custodian of all records, common seal and assets or property as the Syndicate may commit to his charge. He is the Secretary of the Syndicate & Member Secretary of the Academic Council. He is also the member of the Finance committee. He is mainly responsible for implementing the decisions, made by the Syndicate, Academic Council and Vice-Chancellor himself and decision taken from the recommendation of different bodies and committees. Major Human Resource Management (HRM) functions (Manpower acquisition, Training & Development, Placement, Motivation etc.) are performed by the Establishment Section, Student's enrolment, Registration, all Academic activities, Programs and Schedules are prepared and published by the Academic Section of the Registrar Office. Registrar is also responsible for the security matters of the University. Generally, Vice-Chancellor practices his common controlling power over all the Departments, Offices and Sections through Registrar Office.

Department of Civil Engineering

Under DUET the Department of Civil Engineering has crossed hundreds of miles in planning, designing, implementation and monitoring of infrastructural development projects to make an epoch making turn. It means that civil engineers are directly involved in the development process and also in removing the juncture of a nation and hence, active participants in the nation building activities. Better understanding of the civil engineering problems, sound and updated knowledge is essential for engineers to be successful in their professional life to meet the challenges in an appropriate way. Civil engineering program in DUET, Gazipur is designed to provide the students with the fundamental knowledge, basic understanding of civil engineering and to make them familiar with state of the art of knowledge and latest developments for entering into a wide variety of professional career including research and developments. To enhance and uphold the professional efficiencies, high quality teaching and research are intensified. By doing so the Department of Civil Engineering has been producing quality civil engineers to be accepted nationally and internationally.

The postgraduate program of the Department of Civil Engineering comprises of six major divisions: Structural Engineering, Water Resource Engineering, Environmental Engineering, Geotechnical Engineering, Transportation Engineering and Climate Change. The divisions offer basic and advanced optional courses in the above disciplines. Research on these fields is extremely important in national and international context. These areas include earthquake engineering, seismology, behavioral analysis of available building and road materials and improving the quality of present materials, engineering properties of soil from various regions of the country, earthquake resistant structural design, low cost cyclone housing, issues related to climate change, seismic zoning of Bangladesh, waste management, environmental pollution control, environmental impact assessment, traffic simulation, transport system modeling traffic safety studies, specializing in hydrology, hydraulics, irrigation, drainage, flood control, and reclamation, bank protection, river stabilization, ground water, sedimentation problems and coastal engineering etc. Some research projects of more fundamental nature for instance, application of finite element techniques in tackling engineering problems, dynamic behavior of



multistoried buildings and bridges, soil structure integration and concrete technology etc. pursued in this department have greatly contributed to the advancement of knowledge.

To facilitate the testing materials, the department is enriched with a number of laboratories for carrying out research and to introduce undergraduate students with different experiment in different disciplines. Among different laboratories, the prominent ones are: Mechanics of Solids laboratory, Concrete laboratory, Environmental Engineering laboratory, Geotechnical Engineering laboratory, Water Resources Engineering laboratory, Transportation Engineering laboratory, and GIS Center. In the laboratory modern equipments are available for carrying out experimental investigation.

The Divisions offer specialized technical services in the respective disciplines. Highly qualified and diversely experienced consultants of this division have been involved in the solution of various engineering problems. A wide range of quality control testing facilities is also available for materials; those are used in civil engineering field. Expert consultancy services ranging from the design, construction and rehabilitation of buildings, bridges and other structures to planning and design of highways, railways, water supply and sewage treatment plants together with environmental impact assessment for these projects are routinely carried out. In the recent past, highly experienced and expert consultants of the Department of Civil Engineering have been involved in the major projects.

Civil Engineering has traditionally used imagination, judgment, reasoning and experience to apply science, technology, mathematics and practical experience to materialize a concept. Department of Civil Engineering ties these foundations to a diverse program—one that uses knowledge from a variety of engineering disciplines to work on the complex technical challenges faced by society in this millennium.

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Academic Rules and Regulations for Postgraduate Programs

1. Definitions:

- (i) 'University' means the Dhaka University of Engineering & Technology, Gazipur abbreviated as DUET, Gazipur.
- (ii) 'Syndicate' means the Syndicate of the University.
- (iii) 'Academic Council' means the Academic Council of the University.
- (iv) 'Vice-Chancellor' means the Vice-Chancellor of the University.
- (v) 'Pro-Vice Chancellor' means the Pro-Vice Chancellor of the University.
- (vi) 'Faculty' means the Faculty of the University.
- (vii) 'Dean' means the Dean of the Faculty of the University.
- (viii) 'Department' means the Department of the University.
- (ix) 'Head' means the Head of the Department of the University.
- (x) 'Registrar' means the Registrar of the University.
- (xi) 'Controller' means the Controller of Examinations of the University.
- (xii) 'CASR' means the Committee for Advanced Studies and Research of the University.
- (xiii) 'ECF' means the Executive Committee of the Faculty of the University.
- (xiv) 'ACPG' means the Academic Committee for the Postgraduate Program of a Department of the University.
- (xv) 'Equivalence Committee' means the Committee for determining the equivalency of Undergraduate and Postgraduate Degrees obtained from other Universities.
- (xvi) 'Semester' means program of study to be completed within a specific period of time, an Academic Year will consist of two semesters.
- (xvii) 'Board of Discipline' means Board of Discipline (ছাত্র শৃঙ্খলা কমিটি) of the University.

2. Committee:

2.1 Committee for Advanced Studies and Research (CASR):

2.1.1 The CASR shall consist of the following members:

- | | |
|--|------------------|
| (i) Vice-Chancellor or his/her nominated person; | Chairman |
| (ii) Pro-Vice Chancellor; | Member |
| (iii) Three Professors of the University to be nominated by the Syndicate; | Member |
| (iv) Three Teachers of the University having research capabilities and experience to be nominated by the Academic Council not below the rank of Associate Professor; | Member |
| (v) Two Experts from outside the University to be nominated by the Vice-Chancellor; | Member |
| (vi) Director (Research & Extension). | Member Secretary |

2.1.2 At least 50% of members will fulfill the quorum.

2.1.3 The term of the nominated members shall be of three years. A nominated member shall continue to act as member till a nominated substitute takes over.

2.1.4 The functions of the Committee shall be as follows:

- (i) to recommend the concerned authorities for promotion of research and development of advisory and extension services of the University;
- (ii) to approve the proposals for research, advisory and extension services submitted by the different Departments of the University;

- (iii) to approve the Doctoral Committee;
- (iv) to approve the Teacher/Expert's name for supervision of research;
- (v) to recommend the Academic Council about the Board of Examiners for research evaluations;
- (vi) to do such other acts as may be assigned or referred to it by the Vice-Chancellor, the Academic Council or the Syndicate.

2.2 Executive Committee of Faculty (ECF):

2.2.1 The ECF shall consist of the following members:

- | | |
|---|----------|
| (i) Dean of the Faculty; | Chairman |
| (ii) All Heads under the Faculty; | Member |
| (iii) All Professors and Associate Professors under the Faculty; | Member |
| (iv) Three Teachers of the University from outside the Faculty (closely related to the subjects) nominated by the Academic Council; | Member |
| (v) Two Experts, having experience in one or more relevant field but not working at the University to be nominated by the Academic Council. | Member |

2.2.2 The Chairman will nominate one of the members as mentioned in Article no. 2.2.1(iii) to act as the Member Secretary.

2.2.3 At least 50% of members will fulfill the quorum.

2.2.4 The term of the nominated members shall be of three years. A nominated member shall continue to act as member till a nominated substitute takes over.

2.2.5 The functions of the Committee shall be as follows:

- (i) to select the courses, syllabuses and marks to award Postgraduate Degrees;
- (ii) to recommend the Academic Council about the requirements for degree, diploma, certificate and other honors;
- (iii) to recommend the Academic Council to create/restructuring posts for the Teacher and Researcher of the concerned Departments under the Faculty;
- (iv) to take necessary actions as may be conferred on it by Academic Council.

2.3 Academic Committee for the Postgraduate (ACPG) Program:

2.3.1 The ACPG shall consist of the following members:

- | | | |
|-------|--|----------|
| (i) | Head of the Department; | Chairman |
| (ii) | All Professors and Associate Professors of the Department and all other Teachers offering Postgraduate courses; | Member |
| (iii) | One Professor from the relevant field from any other University / Institute to be nominated by the Vice-Chancellor; | Member |
| (iv) | One Expert from the relevant field having experience in any industry, research or commercial organization to be nominated by the Academic Council. | Member |

2.3.2 The Chairman will nominate one of the members as mentioned in Article no. 2.3.1(ii) to act as the Member Secretary.

2.3.3 At least 50% of members will fulfill the quorum.

2.3.4 The term of the nominated members shall be of three years. A nominated member shall continue to act as member till a nominated substitute takes over.

2.3.5 The functions of the Committee shall be as follows:

- (i) to formulate and review the courses and syllabuses to award Postgraduate Degrees;
- (ii) to propose the names of paper setters and examiners for different Postgraduate examinations to the Vice-Chancellor;
- (iii) to perform such other functions as may be conferred on it by ECF, Academic Council, Syndicate and the University Act.

2.4 Equivalence Committee:

2.4.1 The Equivalence Committee shall consist of the following members:

- | | | |
|-------|---|--------|
| (i) | Vice-Chancellor or his/her nominated Chairman person; | |
| (ii) | Pro-Vice Chancellor; | Member |
| (iii) | Dean of the Faculties; | Member |
| (iv) | Head of the Department; | Member |
| (v) | Two Professors of the University to be nominated by the Academic Council; | Member |
| (vi) | One Professor of the University to be nominated by the Vice-Chancellor. | Member |

2.4.2 The Chairman will nominate one of the members as mentioned in Article no. 2.4.1(iv) or (v) to act as the Member Secretary.

2.4.3 At least 50% of members will fulfill the quorum.



- 2.4.4 The term of the nominated members shall be of three years. A nominated member shall continue to act as member till a nominated substitute takes over.
- 2.4.5 The functions of the Committee shall be as follows:
(i) to assess the Degrees obtained from other Universities / Institutes;

3. Postgraduate Course Co-ordinator

The Member Secretary of the ACPG of the Department of Civil Engineering will act as the Postgraduate Course Co-ordinator of the Department. The Course Co-ordinator should coordinate all the related activities regarding the Postgraduate program and will preserve all the related documents and records.

Academic Rules and Regulations for M Sc. Engg. and M Engg. Degree

1. Degrees Offered

The Masters Degrees to be offered by the Department under the Rules and Regulations are as follows:

1.1 Master of Science in

- (a) Civil Engineering (Environmental) abbreviated as M Sc. Engg. (Civil & Environmental)
- (b) Civil Engineering (Geotechnical) abbreviated as M Sc. Engg. (Civil & Geotechnical)
- (c) Civil Engineering (Structural) abbreviated as M Sc. Engg. (Civil & Structural)
- (d) Civil Engineering (Transportation) abbreviated as M Sc. Engg. (Civil & Transportation)
- (e) Civil Engineering (Water Resources) abbreviated as M Sc. Engg. (Civil & Water Resource)
- (f) Environmental Engineering abbreviated as M Sc. Engg. (Environmental)
- (g) Climate Change(Water and Environment) abbreviated as M Sc. Engg. in Climate Change(Water and Environment)

1.2 Master of Engineering in

- (a) Civil Engineering (Environmental) abbreviated as M Engg. (Civil & Environmental)
- (b) Civil Engineering (Geotechnical) abbreviated as M Engg. (Civil & Geotechnical)
- (c) Civil Engineering (Structural) abbreviated as M Engg. (Civil & Structural)
- (d) Civil Engineering (Transportation) abbreviated as M Engg. (Civil & Transportation)



- (e) Civil Engineering (Water Resources) abbreviated as M Engg. (Civil & Water Resource)
- (f) Environmental Engineering abbreviated as M Engg. (Environmental)
- (g) Climate Change(Water and Environment) abbreviated as M Engg. in Climate Change(Water and Environment)

1.3 Any other Masters Degree in other branch of Engineering approved by the Syndicate on the recommendation of Academic Council may also be offered under the Rules and Regulations.

2. Eligibility for the Applicant

2.1 In order to get admission to the Masters Program an applicant

- (a) must have a minimum GPA of 3.00 out of 5.00 or 2.75 out of 4.00 or a first division in SSC or HSC or Diploma in Engg. or in equivalent examinations; and
- (b) must have a minimum CGPA of 2.75 out of 4.00 in B Sc.Engg. in the relevant branch. In other cases, the Equivalence Committee will decide.
- (c) The above requirements may be relaxed for applicants on deputation or sponsored by Academic Institutions / Research Organizations / International Organizations / DUET Graduates. Such relaxation shall be recommended by the Admission Committee of the Department of Civil Engineering for approval of Academic Council.

2.2 For M Sc.Engg./M Engg. Degree in Civil Engineering, an applicant must have a B Sc. Engg. Degree in Civil Engineering or an equivalent Degree from any recognized University/Institute. The Equivalence Committee shall examine the equivalence and suitability of an applicant's Degree for admission.

2.3 An Applicant with a B Sc. Engg. Degree in other branches of engineering may also be eligible for admission into the M Sc. Engg. (Environmental) / M Engg. (Environmental). in such cases, the selected candidate may require to undertake non-credit prerequisite courses at the Undergraduate and/or Postgraduate level as may be determined by the ACPG of the Department of Civil Engineering.

3. Admission and Registration Procedures

- 3.1 Applications for admission to the above programs shall be invited through regular means of advertisement and shall be received by the Registrar office.
- 3.2 On the recommendation of the ACPG of the Department through EC of the Faculty of Civil Engineering, the rules for admission into the University for Postgraduate Program shall be framed by the Academic Council from time to time. CASR on its own may, if it deems fit, recommend such rules for admission for approval of the Academic Council.
- 3.3 There shall be an Admission Committee in the Department of Civil Engineering as constituted by the ACPG of the Department on the recommendation of the Head of the Department.
- 3.4 Before being finally selected for admission an applicant may require to sit for an oral and/or written test before the Admission Committee. S/he may require to take pre-requisite course(s) as may be prescribed by the Admission Committee.
- 3.5 The selected applicants should complete their course registration and related tasks as per the announcement of the Registrar office of the University.

4. Academic Requirements and Regulations

- 4.1 The minimum duration of M Sc. Engg. / M Engg. Program shall be three semesters and generally not more than 5 (five) Academic Years starting from the date of first registration. Each Academic Year shall consist of two semesters. The duration of a semester will be of minimum 13 (thirteen) weeks.

- 4.2 The courses of a Program in the Department of Civil Engineering shall be proposed by the ACPG of the Department and approved by the Academic Council on the recommendation of ECF of Civil Engineering.
- 4.3 The courses to be offered by the Department of Civil Engineering in any semester shall be determined by the Department.
- 4.4 Academic progress of students shall be assessed in terms of credit hours earned by them. In a semester 1 (one) contact hour per week for theory courses or 3 (three) contact hours per week for Thesis/Project represent(s) 1 (one) credit hour. The number of credit hours for each course shall be specified in the syllabus of the Department of Civil Engineering.
 - 4.4.1 For the Degree of M Sc. Engg., a student must earn a minimum of 36 credit hours of which 18 credit hours shall be assigned for a Thesis.
 - 4.4.2 For the Degree of M Engg., a student must earn a minimum of 36 credit hours of which 6 credit hours shall be assigned for a Project.
- 4.5 A student may be allowed to switch from M Sc. Engg. to M Engg. on the recommendation of the ACPG of the Department of Civil Engineering through Head of the Department before the commencement of a semester.
- 4.6 A student may be allowed to switch from M Engg. to M Sc. Engg. on the recommendation of the ACPG of the Department of Civil Engineering through Head of the Department and concerned Supervisor upon having the approval of the CASR before the commencement of a semester.
- 4.9 A student, serving in different organizations, may be admitted as a part-time student with a written consent of the employer. A part-time student may be allowed to register a maximum of 9 (nine) credit hours in a semester.
- 4.10 A student may be allowed to switch from part-time to full-time or vice versa on the recommendation of the ACPG of the Department of Civil Engineering through the Head of the Department before the commencement of a semester.

- 4.11 A student may be permitted to withdraw and/or change their registered courses within 3 (three) working weeks from the commencement of that semester on the recommendation of the Course Co-ordinator and the Head of the Department. The concerned course Teacher and authorities will be informed of the decision.
- 4.12 On the recommendation of the ACPG of the Department of Civil Engineering through CASR and by the approval of the Academic Council, a student may be allowed to transfer a maximum of 9 (nine) credits for M Sc. Engg. and 15 (fifteen) credits for M Engg. of the required theory courses of this Department completed by the student at a recognized University/Institute provided that the courses were not taken earlier than 3 (three) calendar years from the date of their first enrollment in the respective program at the University. In addition, the student must obtain a minimum GPA of 3.00 out of 4.00 or its equivalent and those courses should be equivalent to the theory courses offered at the Department.
- 4.13 If a student is unable to complete the final examination of a semester due to serious illness or serious accident or official commitment, s/he may apply to the Registrar in a prescribed form through Head of the Department for total withdrawal from the semester within a week after the end of the semester final examination. The application must be supported by a medical certificate from the Chief Medical Officer (CMO) of the University or relevant Official documents. The Academic Council will take the final decision about such application on the recommendation of the ACPG of the Department.
- 4.13 If a student is unable to complete the final examination of a semester due to serious illness or serious accident or official commitment, s/he may apply to the Registrar in a prescribed form through the Head of the Department of Civil Engineering for total withdrawal from the semester within a week after the end of the semester final examination. The application must be supported by a medical certificate from the Chief Medical Officer (CMO) of the University or relevant Official documents. The Academic Council will take the final decision about such application on the recommendation of the ACPG of the Department.



4.14 The qualifying requirement for graduation is that a student must earn a minimum CGPA of 2.65 based on the weighted average of their course work.

4.15 2 (two) courses may be repeated for improvement with the prior approval of the Head of the Department on the recommendation of the Course Co-ordinator, provided that the student has a CGPA less than or equal to 2.65. In such cases, the better grade(s) amongst the previous examination and improvement examination would be retained.

4.16 A student shall not be allowed to continue the Program if s/he obtains a total of 4 (four) or more 'F' grades during the period of their studies.

4.17 If at the end of the second or any subsequent semester, the cumulative GPA falls below 2.50, s/he shall not be allowed to continue the Program.

4.18 In addition to the successful completion of theory course work, each student shall have to submit a Thesis on their research work or a Report on their Project work, as applicable, fulfilling the requirements as detailed in the subsequent Article no. 7 or 8.

5. Grading System

5.1 The grading system for assessing the performance of a student in credit courses shall be as follows:

Numerical grade	Letter grade	Grade point	Merit description
90% and above	A plus	4.00	Excellent
>80% but <90%	A regular	3.50	Very good
>70% but <80%	B plus	3.00	Good
>60% but <70%	B regular	2.50	Average
>50% but <60%	C	2.00	Pass
below 50%	F	0.00	Failure
	I		Incomplete
	S		Satisfactory
	U		Unsatisfactory
	X		Continuation

All the final grades for the course of M Sc. Engg. / M Engg. will be recorded in letter grade system. The Grade Point Average (GPA) shall be computed for each semester. The GPA will be calculated 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(s). The overall or Cumulative GPA 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 ($\sum C_i G_i$) accumulated up to the date by the total credit hours ($\sum C_i$). Both GPA and Cumulative GPA will be rounded off to the second place of decimal for representing/reporting.

5.2 Course(s) in which a student gets 'F' grade shall not be counted towards credit hour requirements and for the calculation of GPA. Students may repeat the 'F' graded course(s) if it is offered again.

5.3 The 'B' and 'C' grades, up to a maximum of two courses, may be ignored for calculation of GPA on the written request of the student to the Head of the Department and on the recommendation of the Course Co-ordinator, provided that the student has to fulfill the total course credit hour requirements in the remaining courses with a minimum GPA of 2.65.

5.4 The performance in all the courses including all the 'F' grades shall be reflected in the transcript.

5.5 Grade 'I' will be 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 of their control. To get 'I' grade, s/he must apply to the Head of the Department through the respective course Teacher within 1 (one) week after the examination of the respective course. S/he has to complete the course within the next 2 (two) consecutive semesters; otherwise s/he will get 'F' grade



in that course. If that course is not offered within the next 2 (two) consecutive semesters, the student can take any other offered course as a replacement on the recommendation of ACPG. An M Sc. Engg. student can apply for an 'I' grade for a maximum of 4 (four) same/different courses and an M Engg. Student can apply for an 'I' grade for a maximum of 6 (six) same/different courses.

- 5.6 Satisfactory ('S') and Unsatisfactory ('U') shall be used for final grading of the performance of Thesis/Project and non-credit courses. An 'X' grade shall be recorded for Thesis/Project continuation.
- 5.7 A student may enroll for non-credit course(s) termed as audit course(s) on the recommendation of their Thesis/Project Supervisor and Head of the Department.

6. Conduct of Examination

- 6.1 In addition to class tests, assignments, term papers, etc. there shall be a written examination on all theoretical courses at the end of each semester. The respective course Teacher will be solely responsible for the performance evaluation of a student. The dates of the examinations shall be announced by the Controller of Examinations as advised by the Head of the Department at least 2 (two) weeks before its commencement. The final grade in a theoretical course shall be based on the performance of all class tests, assignments, term papers etc. and written examination.
- 6.2 The Controller of Examinations shall keep the up-to-date record of all the grades obtained by students and shall publish the results at the end of each semester. A student may collect a copy of the grade sheet from the office of the Controller of Examinations at the end of each semester. In addition, each student is entitled to 1 (one) official academic transcript after the completion of their academic program from the office of the Controller of Examinations on production of document of clearance from all concerned Departments and payment of the prescribed fees.

- 6.3 The ACPG of the Department of Civil Engineering shall recommend the names of the paper setters and examiners for the semester final examinations at least 2 (two) weeks before the date of the commencement of the examination to the Vice-Chancellor for approval.

7. Thesis

- 7.1 The research work for a thesis shall be carried out under the Supervision of a full-time teacher, who should be the member of ACPG of the Department of Civil Engineering. A Joint-supervisor/ Co-supervisor within or outside the Department may be appointed (if necessary). The Supervisor, Joint-supervisor/Co-supervisor and the research topic shall be approved by the CASR on the recommendation of ACPG after completion of at least 12 (twelve) credit hours of course work and having a minimum CGPA of 2.65.
- 7.2 A student shall submit a Thesis proposal to the ACPG through Supervisor. The ACPG shall examine the proposal and recommend it for the approval of the CASR through the Head of the Department. In special circumstances, the ACPG may recommend any subsequent changes in the research topic and forward it through the Head of the Department to CASR for further approval.
- 7.3 If any change is necessary on the approved Thesis (title, content, cost, Supervisor, Joint-supervisor/Co-supervisor, etc.), it shall be approved by the CASR on the recommendation of the ACPG of the Department of Civil Engineering.
- 7.4 The research work should normally be carried out at the University. However, if necessary, with the approval of the ACPG, the Supervisor can allow their student to carry out the research work outside the University.
- 7.5 At the end of a student's research work and with the consultation of the Supervisor, the student has to submit a Thesis which must be an original contribution to Engineering/ Science and worthy of publication. Each student must submit at least 5 (five) numbers of printed copies of their Thesis in the prescribed format to the Head



of the Department on or before a date to be fixed by the Supervisor concerned in consultation with the Head of the Department.

- 7.6 The student shall have to declare that the research work was carried out by them and has not been submitted elsewhere for the award of any other Diploma or Degree.
- 7.7 The Thesis should reflect a satisfactory knowledge in the field of research undertaken by the student.
- 7.8 Each student submitting a Thesis in the partial fulfillment of the requirements of a Degree, shall be required to take an oral examination, on a date or dates fixed by the Supervisor concerned in consultation with the Head of the Department and must satisfy the examiners that s/he is capable of intelligently applying the results of their research to the solution of problems, of undertaking independent work, and also shows evidence of satisfactory knowledge related to the theory and technique used in their research work.
- 7.9 An Examination Board for each student for Thesis and oral examination shall be approved by the Academic Council through the ACPG and CASR on the recommendation of the Thesis Supervisor. The Supervisor shall act as the Chairman and the Head of the Department will be an Ex-officio member of the Examination Board. The Board shall consist of at least 5 (five) members including the Head of the Department and the Supervisor. The Examination Board shall be constituted as follows:

(i) Supervisor	Chairman
(ii) Joint/Co-supervisor (if any)	Member
(iii) Head of the Department	Member (Ex-officio)
(iv) At least one Teacher from the ACPG of the Department of Civil Engineering	Member
(v) One external member from outside the University/Department.	Member (External)

- 7.10 If any examiner is unable to accept the appointment or has to relinquish their appointment before the examination, the Vice-Chancellor shall appoint another examiner in their place, on the suggestion from the Supervisor in consultation with the Head of the Department. This appointment will be reported to the CASR.
- 7.11 In case a student fails to satisfy the Examination Board in Thesis and/or oral examination, the student shall be given one more chance to resubmit the Thesis and/or take an oral examination as recommended by the Board.

8. Project

- 8.1 The Project work shall be carried out under the supervision of a full-time Teacher, who should be the member of ACPG of the Department of Civil Engineering. The Supervisor and the topic of the Project work shall be approved by the CASR on the recommendation of ACPG after completion of at least 12 (twelve) credit hours of course work and having a minimum CGPA of 2.65.
- 8.2 A student shall submit a Project proposal to the ACPG through Supervisor. The ACPG shall examine the proposal and recommend it for the approval of the CASR through the Head of the Department. In special circumstances, the ACPG recommend any subsequent changes in the Project topic and forward it through the Head of the Department to CASR for approval.
- 8.3 If any change is necessary on the approved Project (title, content, cost, Supervisor etc.), it shall be approved by the CASR on recommendation of the ACPG of the Department of Civil Engineering.
- 8.4 The Project work should normally be carried out at the University. However, if necessary, with the approval of the ACPG, the Supervisor can allow their student to carry out the Project work outside the University.
- 8.5 At the end of a student's Project work and with the consultation of the Supervisor the student has to submit a Project report. Each student must submit at least 5 (five) number of printed copies of



their Project in the prescribed format to the Head of the Department on or before a date to be fixed by the Supervisor concerned in consultation with the Head of the Department.

8.6 The student shall have to declare that the Project work was carried out by them and has not been submitted elsewhere for the award of any other Diploma or Degree.

8.7 Each student submitting a Project report in partial fulfillment of the requirements of a Degree, shall be required to take at an oral examination, on a date or dates fixed by the Supervisor concerned in consultation with the Head of the Department and must satisfy the examiners that s/he has gained satisfactory knowledge related to the Project work.

8.8 An Examination Board for each student for Project and oral examination shall be approved by the Academic Council through the ACPG and CASR on the recommendation of the Project Supervisor. The Supervisor shall act as the Chairman and the Head of the Department will be an Ex-officio member of the Examination Board. The Board shall consist of at least 5 (Five) members including the Head of the Department and the Supervisor. The Examination Board shall be constituted as follows:

- | | |
|---|------------------------|
| (i) Supervisor | Chairman |
| (ii) Head of the Department | Member
(Ex-officio) |
| (iii) At least two Teachers from the ACPG
of the Department of Civil Engineering | Member |
| (iv) One external member from outside the
University/Department. | Member
(External) |

8.9 If any examiner is unable to accept the appointment or has to relinquish their appointment before the examination, the Vice-Chancellor shall appoint another examiner in their place, on the suggestion from the Supervisor in consultation with the Head of the Department. This appointment will be reported to the CASR.

8.10 In case a student fails to satisfy the Examination Board in Project report and/or oral examination, the student shall be given one more chance to resubmit the Project report and/or take an oral examination as recommended by the Board.

9. Cancellation of Admission

The admission of a student shall be cancelled from the University on the following grounds:

- (i) Non-payment of fees of the University and the Halls of residence within a prescribed period.
- (ii) If the requirements in Article no. 4.16 and 4.17 are not fulfilled by the student.
- (iii) Forced to discontinue their studies by the Board of Discipline.
- (iv) Withdrawn officially from all the courses including Thesis/Project.

10. Academic Fees

Academic tuition and fees will be declared and reviewed by the appropriate authority of the University from time to time.

11. Extension of Time for Completion of Degree

The application for extension of time span of a student should be approved by the Academic Council through CASR on the recommendation of the ACPG of the Department of Civil Engineering. A prescribed form may be used for this purpose. The application must be submitted before the normal time span has elapsed.



Department of Civil Engineering

Academic Rules and Regulations for Doctor of Philosophy (Ph. D) Degree

1. Degree Offered

The Doctor of Philosophy (Ph. D) degree to be offered by the Department of Civil Engineering Under the Rules and Regulations is as follows:

Doctor of Philosophy (Ph. D) in Civil Engineering abbreviated as Ph. D (CE).

2. Eligibility for the Applicant

2.1 In order to get admission to the Ph. D program an applicant

- a) must have a minimum GPA of 3.00 out of 5.00 or 2.75 out of 4.00 or a first division or equivalent in SSC or HSC or Diploma in Engg. or in equivalent examinations; and
- b) must have at least 50% marks or a minimum CGPA of 2.75 out of 4.00 or its equivalent in B Sc. Engg. / Four-year B Sc. degree or M Sc. degree in the relevant branch.
- c) must have a minimum CGPA of 2.75 out of 4.00 or its equivalent in Masters degree in the relevant branch.
- d) The above requirements may be relaxed for applicants on deputation or sponsored by Academic Institutions / Research Organizations / International Organizations. Such relaxation shall be recommended by the Admission Committee of the respective Department for approval of Academic Council.

2.2 Specific requirement of the Department is that the minimum qualification for admission shall normally be an M Sc. Engg. / M Engg. Degree in the appropriate branch of engineering or its equivalent from any recognized Institution.

Department of Civil Engineering

3. Admission and Registration Procedure

- 3.1 An applicant may apply to the Registrar for provisional admission to the Ph. D program in any semester.
- 3.2 There shall be an Admission Committee in the Department as constituted by the ACPG on recommendation of the Head of the Department of Civil Engineering.
- 3.3 A selected applicant by the Admission Committee shall be provisionally admitted and may be required to pass the prerequisite non-credit courses as prescribed by the Admission Committee.
- 3.4 The selected applicants should complete their course registration and related tasks as per the announcement of the Registrar office of the University.

4. Appointment of a Supervisor

On provisional admission, the Admission Committee as constituted in Article No. 3.2 shall submit a name of a Supervisor who shall be a full-time faculty member belonging to the Department and a Joint-supervisor / Co-supervisor from within or outside the Department (if necessary). These selections have to be approved by the CASR. The supervisor shall prescribe a plan of study to be undertaken by the student and supervise the progress of the candidate's work.

5. Final Registration

A provisionally admitted student shall be deemed to be eligible for final registration as a Ph. D student with effect from the date of their provisional admission after s/he passes the comprehensive examination.

6. Academic Requirements for the Degree

- 6.1 A student must complete all requirements for the Ph. D Degree within a maximum of 7 (seven) academic years (session) and not less than 3 (three) academic years (session) from the date of their provisional admission.

6.2 Academic progress shall be assessed in terms of Credit hours earned by a student. One Credit hour subject shall normally require 13 (thirteen) weeks of lecture for one semester while one Credit hour for Thesis work should normally require 39 (thirty nine) hours of research work for one semester. The number of credit hours for each course shall be as specified in the syllabus of the respective Department.

6.3 A student must complete a minimum of 54 credit hours of which 45 credit hours shall be assigned for a Thesis.

6.4 There shall be two categories of student, namely, full-time student and part-time student.

6.4.1 A student may enroll as a part-time student. A student, serving in different organizations, may also be admitted as part time students with the written consent of the employer. A part time student may be assigned a maximum of 9 (nine) credit hours of course including Thesis work in any semester.

6.4.2 A full-time student must register for a minimum of 12 (twelve) credit hours and a maximum of 15 (fifteen) credit hours per semester. A full-time student shall not be allowed to be in the employment of any organization (even as a part-time employee). However, they may be employed as Teaching/Research Assistant at the University. If a full time student becomes an employee (full time or part time) of any other organization in the middle of a semester, s/he may, with the approval of the Head of the Department and their Employer, be allowed to continue as a full-time student for that semester.

6.4.3 A student may be allowed to switch from part-time to full-time or vice versa on the recommendation of the Doctoral Committee before the commencement of a semester.

6.5 The courses of study in the Department shall be as recommended by the ACPG and the Faculty / CASR and approved by Academic Council.

6.6 The courses that may be offered in any semester shall be as decided by the Department of Civil Engineering.

6.7 A student on the recommendation of the ACPG of the Department of Civil Engineering and as approved by the CASR may be allowed to transfer a maximum of 3.0 credits of the courses completed by the student at a recognized institution provided that the courses were not taken earlier than 5 (five) calendar years from the date of their first enrollment in the respective program at DUET and that the student obtained a minimum GPA of 3.00 out of 4.00 or its equivalent in such courses and that the courses are equivalent to the approved courses of DUET

7. Grading System

7.1 The grading system for assessing the performance of a student in credit courses shall be as follows:

Numerical grade	Letter grade	Grade point	Merit description
90% and above	A plus	4.00	Excellent
>80% but <90%	A regular	3.50	Very good
>70% but <80%	B plus	3.00	Good
>60% but <70%	B regular	2.50	Average
>50% but <60%	C	2.00	Pass
below 50%	F	0.00	Failure
	I		Incomplete
	S		Satisfactory
	U		Unsatisfactory
	X		Continuation

All the final grades for the course of Ph. D. will be recorded in letter grade system. The GPA will be calculated 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(s). The overall or Cumulative GPA 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 ($\sum C_i G_i$) accumulated up to the date by the total credit hours ($\sum C_i$). Both GPA and Cumulative GPA will be rounded off to the second place of decimal for representing/reporting.

7.2 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).

7.2.1 The 'B' and 'C' grades, up to a maximum of two courses, may be ignored for calculation of GPA at the written request of the student to the Head of the Department 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 2.75.

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

7.2.3 The performance in all the courses including all the 'F' grades shall be reflected in the transcript.

7.3 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 s/he must apply to the Head of the Department through the respective course teacher within one week after the examination of the respective course. S/he has to complete the course within the next

2 (two) consecutive semesters; otherwise s/he will get 'F' grade in that course.

7.4 Satisfactory ('S') and Unsatisfactory ('U') shall be used for final grading of the performance of Thesis and non-credit courses. An 'X' grade shall be recorded for Thesis continuation.

7.5 A student may enroll for non-credit course(s) termed as audit course(s) on recommendation of their Thesis Supervisor and Head of the Department.

7.6 A student shall withdraw officially from a course within 2 (two) working weeks of the commencement of the semester or else their grade in that course shall be recorded as 'F' unless s/he is eligible to get a grade of 'I'. A student may be permitted to withdraw and change their course within the specified period with the approval of their Supervisor, Head of the Department and the respective teacher(s) concerned. (In that case their grade in the courses registered shall be recorded as 'W' in his Academic Record but shall not be reflected in the transcript).

8. Doctoral Committee

A Doctoral Committee for each student shall be proposed by the Supervisor in consultation with the Head of the Department. The committee shall be approved by the CASR on recommendation of the ACPG. The Committee shall be formed within 1 (one) year from the date of the student's provisional admission. The Committee shall consist of at least five members but shall not exceed seven including the Head of the Department and the Supervisor. The Doctoral Committee shall be constituted as follows:

(i)	Supervisor	Chairman
(ii)	Joint/Co-supervisor (if any)	Member
(iii)	Head of the Department	Member (Ex-officio)
(iv)	At least two Teachers from the ACPG of the Department	Member
(v)	At least one external member from outside the University/Department	Member (External)



The Doctoral Committee should meet from time to time on the request of the Supervisor to review the progress of the student. Under special circumstances CASR may approve any addition and/or alteration in the Doctoral Committee on the recommendation of the Supervisor through the Head of the Department.

9. Research Proposal

- 9.1 The student, after passing the comprehensive examination, shall submit a research proposal to the Doctoral Committee which shall examine the proposal and recommend it for the approval of the CASR through the Head of the Department. In special circumstances the Doctoral Committee may recommend through the Head of the Department to CASR for approval of any subsequent changes in the research proposal.
- 9.2 Research work for a Dissertation shall be carried out at this University or at a place(s) recommended by the Doctoral Committee. The work schedule and financial involvement should be mentioned in the research proposal for carrying out research work outside the university.

10. Conduct of Examination

- 10.1 In addition to class tests, assignments, term papers etc. there shall be a written examination on all theoretical courses at the end of each semester. The respective course teacher will be solely responsible for the performance evaluation of a student. The dates of the examinations shall be announced by the Controller of Examinations as advised by the Head of the Department at least 2 (two) weeks before its commencement. The final grade in a theoretical course shall be based on the performance of all class tests, assignments, term paper and written examination.
- 10.2 The Controller of Examinations shall keep the up-to-date record of all the grades obtained by students and shall publish the results at the end of each semester. A student may collect a copy of the grade sheet from the office of the Controller of Examinations at the end of each semester. In addition, each

student is entitled to 1 (one) official academic transcript after the completion of their academic program from the office of the Controller of Examinations on production of the document of clearance from all concerned Departments and payment of the prescribed fees.

- 10.3 The ACPG shall recommend the names of the paper setters and examiners for the semester final examinations at least 2 (two) weeks before the date of the commencement of the examination to the Vice-Chancellor for approval.

11. Qualifying Requirements

11.1 Course Work

To qualify for the degree a student must earn a minimum Grade Point Average (GPA) of 2.75 out of 4.00 based on the weighted average of Grade Points (GP) in their course work.

11.1.1 2 (two) courses may be repeated for improvement with the prior approval of the Head of the Department on the recommendation of Supervisor.

11.1.2 A student obtaining 'F' grade in a course may be allowed to repeat the course with the prior approval of Head of the Department on the recommendation of Supervisor. Such approval shall be reported to the ACPG.

11.2 A student shall not be allowed to continue the program if s/he obtains a total of 2 (two) or more 'F' grades in one or more than one courses taken together, during the period of their studies.

11.3 Comprehensive Examination

The date(s) and time of the comprehensive examination shall be fixed by the Doctoral Committee on the request of the Supervisor. The comprehensive examination shall be held after the completion of the course work by the student. The theory courses should be completed within 3 (three) semesters.

The comprehensive examination shall comprise a written examination and/or an oral examination to test the knowledge of the student in their field of study and research.

The Doctoral Committee shall conduct the comprehensive examination. If a student fails in a comprehensive examination s/he shall be given one more chance to take the examination as scheduled by the Doctoral Committee.

- 11.4 In addition to successful completion of course works and comprehensive examination every student shall submit a Thesis/Dissertation on their research work fulfilling the requirements.

12. Thesis/Dissertation

- 12.1 At the end of the student's research work the student shall submit a Thesis/Dissertation which must be an original contribution to Engineering/Science and worthy of publication. At least 6 (six) printed copies of the Thesis/Dissertation in the prescribed format must be submitted to the Head of the Department.
- 12.2 The student shall certify that the research work was done by them and that this work has not been submitted elsewhere for any other purpose (except for publication).
- 12.3 On the completion of the research work and submission of the Thesis/Dissertation an oral examination shall be arranged on a date(s) fixed by the Supervisor in consultation with the Head of the Department in which the student shall defend their research work. The student must satisfy the examiners (as constituted in Article no. 13.1) that s/he is capable of intelligently applying the results of his/her research work to the solution of problems, of undertaking independent research and afford evidence of satisfactory knowledge related to the theory and technique used in their research work.
- 12.4 In order to qualify for the Degree, a student must have 2 (two) numbers of publications (of which at least one should be published in a journal) relevant to their research work.

13. Examination Board

- 13.1 An Examination Board for each student for Thesis/Dissertation and oral examination shall consist of the Doctoral Committee and one or more external examiner(s) to be approved by the Academic Council through the CASR on the recommendation of the Thesis/Dissertation Supervisor in consultation with the Head of the Department. The Board shall consist of at least 6 (six) and maximum 8 (eight) members including the Head of the Department and the Supervisor. The Supervisor shall act as the Chairman of the Examination Board. At least one external examiner shall be appointed from outside the University (DUET). If the external examiner is appointed from outside the country a copy of the Thesis/Dissertation should be sent to them for their evaluation and their written opinion be placed before the Examination Board.
- 13.2 If any examiner is unable to accept the appointment or has to relinquish their appointment before/during the examination, the Vice-Chancellor shall appoint another examiner in their place, on the suggestion from the Supervisor in consultation with the Head of the Department. This appointment will be reported to the CASR.
- 13.3 In case a student fails to satisfy the Examination Board in Thesis/Dissertation and/or oral examination, the student shall be given one more chance to resubmit the Thesis/Dissertation and/or appear in oral examination as recommended by the Board.



14. Cancellation of Admission

The admission of a student shall be cancelled by the University on the following grounds:

- (i) Non-payment of dues of the University and the Halls of residence within a prescribed period.
- (ii) If the requirements in Article no. 11.2 and 11.3 are not fulfilled by the student.
- (iii) Forced to discontinue their studies by the Board of Discipline.
- (iv) Withdrawn officially from the Ph. D program.

15. Academic Fees

Academic fees will be reviewed by the appropriate authority of the University from time to time.

16. Extension of Time for Completion of Degree

The application for extension of time span of a student should be approved by the Academic Council through CASR on the recommendation of the Doctoral Committee. A prescribed form may be used for this purpose. The application must be submitted before the normal time span has elapsed.

Rules and Regulations Relating to Discipline

General Discipline

1. There shall be a Board of Discipline (ছাত্র শৃঙ্খলা কমিটি) to supervise and control the discipline of the students of the University.
2. The Board shall consist of the following members:

i. Vice-Chancellor	Chairman
ii. Two Deans (To be nominated by the Academic Council)	Member
iii. Three Heads (Two from Engineering and One from Non Engineering Departments) (To be nominated by the Academic Council)	Member
iv. Two Provosts of Halls of Residence (To be nominated by the Academic Council)	Member
v. Director (Students' Welfare).	Member Secretary
3. At least 50% of the total members of the board shall form a quorum. The term of office of the nominated member shall be two years.
4. All incidents which appear to be acts of indiscipline and misconduct committed by any student, including immediate action taken, if any, shall be reported to the Vice-Chancellor by the respective Provost in respect of indiscipline and misconduct in the Halls of Residence and their premises, and by the Head of the Department in respect of indiscipline and misconduct in the class rooms, laboratories, work-shops, all parts of the academic premises and any other place in the campus, and by the Invigilator through the Chief Invigilator in respect of indiscipline and misconduct in the Examination Halls, and by the person concerned (through respective Head/Section Chief) from the students and employees of the University in respect of misconduct committed outside the University campus.

5. A student, who neglects his studies, disobeys and/or denounces orders, rules and regulations, ordinances, statutes of the University, shows misbehavior towards the employees of the University or commits any other offence which will be deemed by the Vice-Chancellor or Director of Students' Welfare or teachers of the University as misconduct and breach of discipline, will be liable to disciplinary action which may range from warning, imposition of fines, suspension to expulsion for good from the University depending on the magnitude of the offence as will be deemed fit by the authorities competent to take disciplinary action as defined in Section 6.

6. Authorities to take disciplinary action with their respective powers to the extent to which they can impose punishment on any student or group of students are:

Authorities for taking Disciplinary Action	*Power	Appellate Authority
Board of Discipline	(i) Warning (ii) Imposing fine (iii) Suspension from Halls/ University for any length of time and (iv) Expulsion from Halls/ University for good	Academic Council
Vice-Chancellor	(i) Warning (ii) Imposing fine and (iii) Suspension up to 2 (two) years from Hall/ University (iv) Expulsion from the Hall for good	Board of Discipline
Head of the Department (On students of his Department)	Warning and Imposing fine up to Tk. 1000/-	Vice-Chancellor

Authorities for taking Disciplinary Action	*Power	Appellate Authority
Director of Students' Welfare	(i) Warning (ii) Imposing fine up to Tk. 1000/- (iii) Suspension from the Halls up to 2 (two) years and (iv) Expulsion from the Hall for good.	Vice-Chancellor
Provosts (on resident or attached students of his Hall of residence)	(i) Warning (ii) Imposing fine up to Tk. 500/- and (iii) Suspension from the Hall for a period of up to 2 (two) years.	Director of Students' Welfare

*Respective authority may impose one or more punishment(s) at a time. Any of the above authority will inform the Director of Students' Welfare for any type of punishment imposed on any student for record.

7. If the Vice-Chancellor feels that the action taken against a student or a group of students (by any of the above authorities other than Board of Discipline) on an offence brought to him is not appropriate or that no action has been taken on any offence observed by him, he will take appropriate disciplinary action against a student or a group of students.

If however, in any case of breach of discipline the Vice-Chancellor is of the opinion that a punishment more than a suspension of two years is required he shall refer the matter to the Board of Discipline for a decision.

8. A student or a group of students against whom an action has been taken by appropriate authority mentioned in column (1) of Section 6 may prefer an appeal to the appropriate appellate authority mentioned in column (3) of Section 6.

9. The Director of Students' Welfare will be responsible for enforcement of the disciplinary action taken against a student or a group of students. He shall maintain a register and shall record therein all actions taken against a student for indiscipline and misconduct and also shall record in all Character Certificates/Testimonials issued by the Director of Students' Welfare to offenders, those actions taken against them if so indicated by the Vice-Chancellor and the Board of Discipline, unless allowed to be expunged/condoned by the Vice-Chancellor on written prayer from the offenders.

10. Character Certificates/Testimonials issued by the Director of Students' Welfare shall be produced by the students when requested for that certificate.

Discipline of Examinations

11. The Chief invigilator shall be responsible for maintenance of discipline in the examination Halls.

12. An Invigilator on duty in Examination Hall shall report to the Chief Invigilator in case of breach of discipline in the examination hall. The Chief invigilator may expel the examinee concerned from the hall debarring him from appearing in that particular examination.

13. Breach of discipline in the examination halls shall be reported by the Invigilator through the Chief Invigilator to the Vice-Chancellor.

14. The candidates shall strictly follow the following instructions.

- i. Candidates are forbidden to write their names on the cover or any part of the answer script. If any candidate does so, his answer script will not be assessed.
- ii. Each candidate must write legibly his Examination Student Number on the cover of scripts. If any candidate omits to write his Examination Student Number and Registration Number on the cover of his answer script, the paper may not be assessed.

iii. When more than one answer script is used, each additional script should be stitched to the first script immediately after it is supplied, and the Examination Student Number and Registration Number should also be written by the candidate on the cover of the additional script or scripts immediately.

iv. No loose paper will be provided for scribbling, and no paper is to be brought in for this purpose. Any candidate found with loose paper in his possession will be expelled from the examination hall. All works must be done in the scripts provided and pages must not be torn out. The scripts provided must be submitted; it cannot be replaced by another, but, if necessary, additional scripts will be given. All works intended for assessment by the examiner should be written on both sides of the paper.

v. Candidates are forbidden to write anything whatsoever on the question paper. In any matter not specifically mentioned in these rules, candidates are required to abide by decision of the invigilator in the examination room.

vi. No candidate will be allowed to leave examination room until one hour has elapsed from the time when the question papers are given out.

vii. Candidates are forbidden to carry Mobile Phone with them in the examination room.

15. Disciplinary action will be taken against candidates reported to have violated the instructions under Section 14 or resorted to unfair means and/or acts of indiscipline at the different examinations as follows:

- i. Attempts to communicate with other examinee or examinees in the examination hall: first time warning which may be accompanied by a change of seats; second time-deduction of 5% of the total marks of paper; third time-expulsion from examination hall for that paper.



- ii. Possession of related to the particular subject of examination or copying from any other source: expulsion from examination hall and cancellation of the examination and expulsion from the University for one to two years. Writings in the person of examinee or in his apparels, in papers, drawing instruments, typing in mobile phones and scales etc. found with him or near the desk, bench or chair will be considered as writings in possession of examinee.
- iii. Possession of mobile phones, media players etc: Deduction of 5% of the total marks of the paper.
- iv. Use of violent language and holding out threats to examiners and invigilators: expulsion from the whole examination and/or expulsion from the University for good.
- v. Attempts to get possession of the question paper or examination scripts before the examination: expulsion from the whole examination and expulsion from the University for one to two years.
- vi. Writings on loose papers not related to the examination (viz. blotting paper, question paper etc.); seizure of the writings and cancellation of the answer script and expulsion from the examination hall.
- vii. Attempts to influence the examiner: cancellation of the paper.
- viii. Impersonating or causing to impersonate in the examination hall: cancellation of the whole examination and expulsion from the University for good.
- ix. Insertion in the examination script, answer to any question or questions written outside the examination hall: cancellation of the whole examination and expulsion for one to two years.
- x. Having a question answered by someone else: cancellation of the whole examination and expulsion for two years.

- xi. If a student or outsider appears at the examination for any student: cancellation of the whole examination for both students, expulsion for two years for the student who appears at the examination for any student and one year for other student.
16. The invigilator is empowered to warn a student and deduct his mark up to 5% as mentioned in section 15 (i) above. The Chief Invigilator is empowered to expel students from the examination room/hall if he is satisfied after an on the spot enquiry that the student is guilty of misconduct mentioned in section 15, above. In all such cases the matter has to be reported to the Vice-Chancellor with incriminating documents, if any. Decisions for cancellation of the examination and expulsion from the University for a period of not exceeding 2 (two) years will be taken by the Vice-Chancellor. For expulsion for a period more than 2 (two) years, the Vice-Chancellor shall refer the matter to the Board of Discipline provided in Section 6.
17. As the Class Test/Quiz is the part of whole examination, therefore, disciplinary action for any misconduct in this examination will also be applicable as mentioned in section 11 through 16.

