

Dhaka University of Engineering & Technology, Gazipur



Information Booklet for Postgraduate Program

Department of Chemistry

**Dhaka University of Engineering
& Technology, Gazipur**



**Information Booklet
for
Postgraduate Program**

Department of Chemistry

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Disclaimer

The Department of Chemistry and the Dhaka University of Engineering & Technology, Gazipur reserve the right to make any changes to the ongoing programmes, courses, rules and regulations as well as regarding the code of conduct of students, requirements for degrees, fees and other pertinent information or clauses laid down in this booklet at any time without prior notification. The University and/or the Department of Chemistry will not be liable for any financial hardship incurred by a student or person owing to such changes made.

Department of Chemistry
DUET, Gazipur

Foreword

This handbook is very handy for the postgraduate students of the Department of Chemistry, Dhaka University of Engineering and Technology. It imparts valuable information about the faculty members with their research fields of interest and other activities of this Department.

In addition, this booklet gives general information regarding the University, its historical background, faculties and administration. This book also provides detailed academic rules and regulations, clauses related to discipline and list of courses with their contents being offered at different semesters.

The course contents of the courses offered may be updated from time to time to keep pace with the latest advances and developments. However, the students are asked to keep in touch with their respective supervisors or the course coordinator about any changes or modifications made by the university and/or the department.

I would like to thank all the members on the editorial committee and my colleagues who have spent a lot of their valuable time in order to prepare the booklet. I am also indebted to the Vice-Chancellor of DUET, Gazipur for extending financial support for its publication.

Thanks,

Head
Department of Chemistry
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. Quadrat-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:

S. L	Students Halls	Seat Capacity
1.	Dr. Fazlur Rahman Khan Hall	124
2.	Dr. Quadrat-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
	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 Stationeries

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, Directorates, 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 Chemistry

The Department

The Department of Chemistry, Dhaka University of Engineering and Technology (DUET), Gazipur came into being as a full-fledged Department from the very inception of this University in 1980. This Department has been offering both theoretical and practical courses to cater for the need of the Undergraduate students.

Faculty of Engineering sets out its journey in the year of 2016. The Department of Chemistry is one of the Departments under this new faculty. This Department endeavors to be a well-reputed model through proper integration of teaching and research in order to advance and share knowledge that highlights excellence in a wide range of research covering the major fields of engineering.

In the year 2010, the Department embarked on Postgraduate Program (M Sc., M Phil. & Ph. D) for both full-time as well as part-time students. Here research, especially at the Postgraduate level, is one of its prime focuses. The research activities of this Department cover almost all the main branches of Chemistry such as Physical, Inorganic, Organic Chemistry and so on. In addition, the ongoing research projects of the Department include both basic and applied research. The multidisciplinary research of the Department involves collaborative works with other reputable government research organizations and public universities.

The Department currently has nine faculty members with impressive academic background, out of which three members have been pursuing Ph. D in USA. Moreover, there are five supporting officers and staffs.

We are trying our best to provide quality chemistry knowledge to our engineering students who will be well-prepared to enter a contemporary workforce.

List of Faculty Members

Professors	Email
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