PROSPECTUS

MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY

TECHNOLOGY FOR ADVANCEMENT
CENTRE OF EXCELLENCE

AE
CE
EECE
EWCE
ME
CSE
ARCH
IPE
NSE
NAME
BME
PME

UNDER & POST
GRADUATION

MIST 2021

MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY (MIST)

MIRPUR CANTONMENT

INAUGURAL CEREMONY OF MIST

ON 19 APRIL 1998

HONOURABLE PRIME MINISTER OF PEOPLE'S REPUBLIC OF BANGLADESH

SHEIKH HASINA

UNVEILING THE FOUNDATION PLAQUE

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IMPORTANT INSTRUCTIONS

1. **Major Academic Schedule (For Level-1 Only)**
   - Term 1 (Spring Term) Class starts: 11 April 2021.
   - Term 1 Final Examination: 08 August 2021.
   - Term 2 (Fall Term) Class starts: 05 September 2021.
   - Term 2 Final Examination: 02 January 2022.

2. **Class Attendance**
   - Collegiate: Attendance 85% and above. Shall attend examination without fine.
   - Non-Collegiate (NC): Attendance 75% to 84.99%. Can attend examination with fines.
   - Dis-Collegiate (DC): Attendance below 75%. Cannot appear the examination. Need to re-take the course in the next suitable Term / year.

3. **Term Registration Fee**
   - Pay all Registration fees in time. Else you will have to pay penalty.
   - Students are not allowed to attend classes without paying registration fees.

4. **Admission Cancellation**
   - Within 2 Weeks of Academic Class: Full payment refund except Security Money (25,0000 Tk).
   - After 2 Weeks: No refund.
   - Please do not deprive Engineering to another student by spoiling the vacancy.

5. **Uniform**
   - Students are NOT allowed in the campus without uniform.
   - Please get your uniform in time from the Tailor Shop.

6. **Exam Policy**
   - A student completes his/her graduation within 4 years in MIST. However, maximum duration for graduation is 6 academic years for Engineering and 7 years for Architecture degree.
   - The minimum CGPA requirement for obtaining a Bachelor's Degree is 2.20. Failure to achieve this grade in two consecutive levels will lead to withdrawal from MIST.
   - Any student achieving grading below 'B+', may appear the improvement examination for that course.
   - Highest grade of Improvement/Supplementary examination will be 'B+'.
   - Student is allowed to register for a maximum of two theory courses (Failed/Improvement) in Supplementary-I and maximum of one theory course (Failed/Improvement) in Supplementary-II.
   - One student is allowed to appear at Improvement exam in 6 (six) courses in his whole graduation period.
   - Read MIST Exam Policy very carefully.

7. **Zero Tolerance**
   - MIST shows Zero Tolerance to Drugs, Ragging, Copying, Religious Extremism, Sexual Harassment and Eve-teasing.

ABOUT MIST

Military Institute of Science and Technology (MIST) is the pioneer technical institute of Bangladesh Armed Forces. It is purely a government educational institution focusing only engineering education and research. Head of the institution is Commandant who is a Major General from Bangladesh Army. MIST started its journey on 19 April 1998. It was the visionary dream of the Honorable **Prime Minister** of the People's Republic of Bangladesh **Sheikh Hasina** to establish this institute. MIST is located on the northwest part of Dhaka City at Mirpur Cantonment. Mirpur Cantonment is well known as the **'Education Village'** of Bangladesh Armed Forces.

First Academic Program of MIST was launched on 31 January 1999 with the maiden batch of Civil Engineering (CE). Various engineering disciplines and their year of operation are shown below:

Ser	Program/Department	Year of Commencement
1.	Civil Engineering (CE)	1999
2.	Computer Science and Engineering (CSE)	2001
3.	Electrical, Electronic and Communication Engineering (EECE)	2003
4.	Mechanical Engineering (ME)	2003
5.	Aeronautical Engineering (AE)	2009
6.	Naval Architecture and Marine Engineering (NAME)	2013
7.	Architecture (Arch)	2015
8.	Biomedical Engineering (BME)	2015
9.	Nuclear Science and Engineering (NSE)	2015
10.	Environmental, Water Resources and Coastal Engineering (EWCE)	2015
11.	Industrial and Production Engineering (IPE)	2016
12.	Petroleum and Mining Engineering (PME)	2016

MIST also offers Ph.D / M.Sc / M Engg under CE, CSE, EECE, ME, AE, NAME, NSE, BME departments and Ph.D / M. Phil under Physics, Chemistry and Mathematics departments.

As an institution MIST is already on steady stride upholding its motto **'Technology for Advancement'** and remains committed in to contributing to the wider spectrum of national educational arena. It plays a significant role in the development of human resources and gradually pursuing to achieve its goal as **'Centre of Excellence'.**

Foreign students were admitted first time in session 2008-09. Since then, total ten students from various countries have graduated from MIST. MIST envisages creating facilities for military as well as civil students from home and abroad dedicated to pursue standard curriculum leading to graduation and post-graduation degrees. MIST offers scholarship and stipends to the students for their outstanding results. Total 4735 students have graduated so far from this institute. The graduates are proving their worth in higher studies and professional assignments both in home and abroad with dignity and efficiency. At present, MIST has total 3007 students out of which 83% is civil students and rest 17% is military.

ATTRIBUTES OF MIST

- ✓ Rigorous admission and selection process for best possible screening
- ✓ Interactive sessions in the classroom
- ✓ Regular guest lectures and educational visits.
- ✓ Tradition of timeliness, commitment and uninterrupted curriculum
- ✓ Well thought-out and continuous feedback and assessment system
- ✓ Effective teaching through innovative method
- ✓ Industrial attachment for on-the-job training
- ✓ Emphasis on code of conduct and dress code
- ✓ Focus to develop students as good human with all possible attributes of a successful leader
- ✓ Tranquil, pollution free and secure campus life

OBJECTIVES

✓ To establish a prestigious academic institute for studies in different fields of engineering and technology for military personnel and civil students of home and abroad at graduate and post graduate levels

✓ To organize courses on military science, technology and management in various arena of interest

✓ To hold examinations and confer certificates of diplomas/degrees, other academic distinctions persons who have persuaded a course of study and have passed examinations conducted by the institute

✓ To confer research degrees, award fellowship, scholarship, exhibition, prizes, medals and honorary degrees to persons who have carried out research works under conditions as prescribed in the MIST regulations

✓ To establish teaching divisions (Div), departments, centres, faculties etc and to make necessary arrangements for their maintenance/management/administration

✓ To make provisions for advisory, research and consultation service including supervision, material testing and to enter into suitable agreement with any persons/organizations for these purposes

✓ To co-operate with Universities/ Technical Institutions (both military and civil) including memorandum of understanding (MoU) at home and abroad, in the manner and purpose as the institute may determine

✓ To do such other acts, related to above-mentioned objectives, as may be required in order to expand the objectives of the institute

CAPABILITIES

✓ To conduct under-graduate programmes leading to B.Sc. Engineering Degrees in the following disciplines:

- ❖ Civil Engineering (CE)
- ❖ Computer Science and Engineering (CSE)
- ❖ Electrical, Electronic and Communication Engineering (EECE)
- ❖ Mechanical Engineering (ME)
- ❖ Aeronautical Engineering (AE)
- ❖ Naval Architecture and Marine Engineering (NAME)
- ❖ Bachelor of Architecture (B. Arch)
- ❖ Biomedical Engineering (BME)
- ❖ Nuclear Science and Engineering (NSE)
- ❖ Environmental, Water Resources and Coastal Engineering (EWCE)
- ❖ Industrial and Production Engineering (IPE)
- ❖ Petroleum and Mining Engineering (PME)

✓ To conduct post graduate programmes (masters and PhD)

✓ To conduct diploma and certificate programmes in Civil Engineering, Computer Science & Engineering, Electrical & Electronics Engineering and Mechanical Engineering, Aeronautical Engineering, Naval Architecture and Marine Engineering, Bachelor of Architecture, Biomedical Engineering, Nuclear Science and Engineering, Environmental, Water Resources and Coastal Engineering, Industrial and Production Engineering, Petroleum and Mining Engineering.

✓ To conduct research and professional advanced programmes / courses for Armed Forces in different fields of Military Science & Technology as requirement arises.

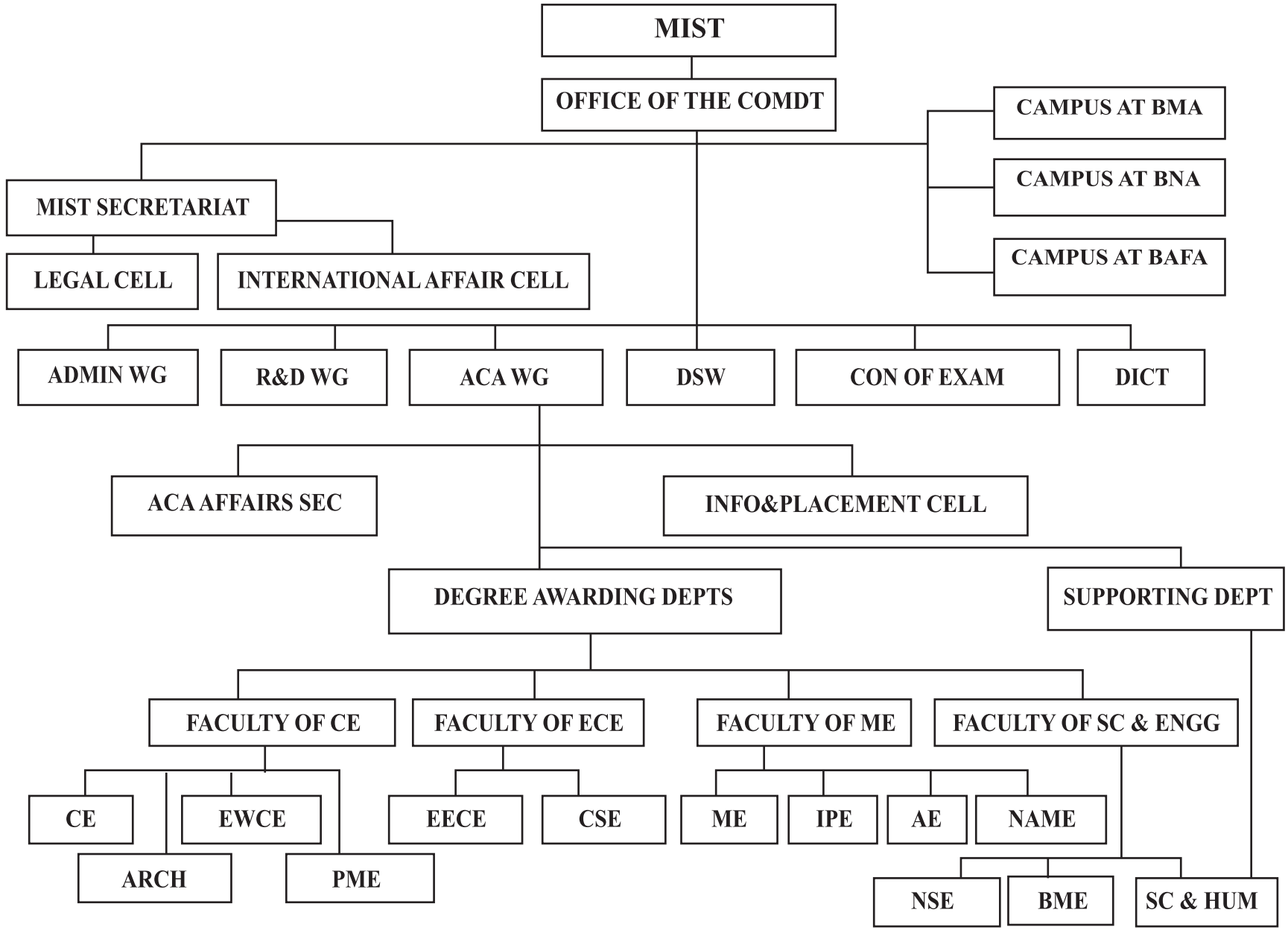
AFFILIATION

All academic programs of MIST are affiliated with Bangladesh University of Professionals (BUP). All examinations are conducted as per the schedule approved by the same university. BUP also approves the results and awards certificates amongst the qualified students.

OUTCOME BASED EDUCATION (OBE)

In its quest of reaching international level of accreditation, MIST has already adopted the Outcome Based Education (OBE) as per Washington Accord (An international accreditation agreement for professional engineering academic degrees between the bodies responsible for accreditation in its signatory countries, established in 1989, till date 20 countries are full signatories). Bangladesh represented by Board of Accreditation for Engineering and Technical Education (BAETE) has a provisional signatory status of Washington Accord. OBE is an educational theme based on each part of an educational system around goals (outcomes). By the end of the educational experience, each student should have achieved the goal. It is expected that graduates will be more relevant to industry and other stakeholders due to OBE system. Five programs of MIST, i.e. CE, EECE, ME, CSE and AE have already applied for accreditation as per OBE to BAETE. Process is going on. It is expected more than one program will get accreditation as per OBE system this year.

ORGANOGRAM


MIST
OFFICE OF THE COMDT
CAMPUS AT BMA
CAMPUS AT BNA
CAMPUS AT BAFA
MIST SECRETARIAT
LEGAL CELL
INTERNATIONAL AFFAIR CELL
ADMIN WG
R&D WG
ACA WG
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INFO&PLACEMENT CELL
DEGREE AWARDING DEPTS
SUPPORTING DEPT
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FACULTY OF ECE
FACULTY OF ME
FACULTY OF SC & ENGG
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EWCE
ARCH
PME
EECE
CSE
ME
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NAME
NSE
BME
SC & HUM

FACULTIES AND DEPARTMENTS

Faculty of Civil Engineering:

- Civil Engineering (CE)
- Architecture (Arch)
- Environmental, Water Resources and Coastal Engineering (EWCE)
- Petroleum and Mining Engineering (PME)

Faculty of Electrical and Computer Engineering:

- Computer Science and Engineering (CSE)
- Electrical, Electronic and Communication Engineering (EECE)

Faculty of Mechanical Engineering:

- Mechanical Engineering (ME)
- Aeronautical Engineering (AE)
- Naval Architecture and Marine Engineering (NAME)
- Industrial and Production Engineering (IPE)

Faculty of Science and Engineering:

- Biomedical Engineering (BME)
- Nuclear Science and Engineering (NSE)
- Department of Science (Mathematics, Physics, Chemistry) and Humanities (Only Post Graduate)

Presently MIST has 12 departments to conduct BSc. Engineering Course under four different engineering faculties. The departments impart education basing on common objectives and outcomes set by MIST and have defined program objectives and outcomes, specific to the departments respectively.

Faculty of Civil Engineering

Civil Engineering (CE) Department

The CE Department of MIST, standing on the four pillars of morale: fundamentals, innovation, excellence and advancements, holds its glory of being the pioneer department of MIST. By creating a positive learning environment and sharing the most up-to-date technological knowledge and skills, the department of CE produces next-generation top-notch engineers and leaders for the nation. Since its commencement in 1999 with only 40 military students, this department has emerged to house and train almost 917 engineering students in undergraduate level at current time. It is the first ever department of MIST to receive the accreditation from the Board of Accreditation for Engineering and Technical Education (BAETE) in 2008.This department has again pioneered the Post Graduate program by introducing the MSc/M.Engg and PhD in 2012 and 2013, respectively. This department is enriched with highly experienced and disciplined teaching staffs having wide vision. At present, 33 faculties are serving in this department of whom 09 are PhD qualified from home and abroad. This department highly promotes interactive learning and collective class-environment which helps the students become more engrossed in employing themselves with the subject-matter and develop their depth of knowledge in engineering education. In addition, the programs emphasizing on engineering science and design, provide students with ample opportunity to put their knowledge into practice by solving real-world problems under the guidance of our readily approachable faculty members. This department also contributes in the country's infrastructural development. Many important construction works, projects and professional vetting works in the field of structural, geotechnical, transportation and environmental engineering are carried out with the consultancy service of this department. All-in-all, within a very short span of time, the CE department of MIST has spread its outreach throughout the nation and is playing a vital role in building an ingenious society enriched with engineering transcendence and revolution.

With highly motivated faculty members, the research environment in the CE department is dynamic and collaborative. Our members are experts in their respective fields and they play a key role in contributing to the knowledge base that helps our students to set their skill. With over 250 conference papers and 200 journal publications since 2020, our students and faculties are actively present in the CE research arena, having a global footprint to include countries like the USA, Canada, Singapore, India to name a few. Our students have got the "Best Paper Award" at different International Conferences. Besides, collaboration research with BUET-JIDPUS and many consultancy projects were done successfully. CE department signed MoU with WaterAid Bangladesh in 2015 for promoting urban rainwater harvesting and Ohio State University, USA in 2016 for the higher education program and joint research work. In February 2021, MIST signed MoU with Lakehead University, Canada.

Department of Architecture (Arch)

The Department of Architecture in MIST started its journey in 2015. It has been only four years, but since the very beginning the department strives to meet the global standard in architecture education & practice. The department aims to educate and develop the future professional architects with high level of knowledge profile, technical competence, design skill and complex-problem solving ability steered by core values of critical thinking, intellectual curiosity, discipline and morality. In this respect, it offers a learning environment that involves the students to nurture their intellectual ability, expand the knowledge horizon, develop high technical competence and design skill that they can apply in education, profession and life.

Students can avail the facilities to work collaboratively with tutors, internal and external practitioners, theorists and designers in order to enhance their skills and build knowledge. The studios of the department are equipped with all modern amenities and the department is in the process of availing eight state of the art laboratories that includes Architectural Design Lab, Building Technology Lab, Photography & Digital Image Lab, Design Communication & Visualization Lab, Model Making Lab, Urban & Landscape Design Lab, Heritage Conservation & Rebuilding Lab and Environmental Design Lab. Along with the consistent academic activities, other cocurricular programs such as exhibition, seminar, design charrette, workshop, guest lecture, excursion etc. are arranged by the department regularly.

The school is new, yet the department is equipped with highly qualified faculty. The faculty contains members with Doctorate and Masters titles from reputed foreign and local universities and a very good combination of experienced and young energetic members. Moreover, there is a very strong Advisory Committee that supports the department by monitoring and evaluating the academic activities regularly and helps to maintain the standard. The committee is comprised of renowned members from the academia, profession and concerned professional bodies. Industrial Training is organized by the department to get the students familiarized with the professional practice. This training program is also organized and monitored by the Industrial Advisory Committee which is composed of prominent architects as well as academicians. With its competent strength the department strives to achieve excellence in all its endeavors to nurture globally competent students.

Environmental, Water Resources and Coastal Engineering (EWCE) Department

In line with the ongoing expansion policy of MIST, Environmental, Water Resources, and Coastal Engineering (EWCE) department is a newly introduced degree awarding department, starting its journey from January 2015 session. The department has currently initiated undergraduate degree program and subsequently will go for further enlarging its arena to post graduate degree programs. Concern about environment is a global issue and environmental issues related to large scale civil engineering projects need further special attention in order to minimize the adverse impact on surrounding environment. For Bangladesh managing the vast water resources for its optimum benefit is very vital for overall livelihood of the people. The long stretched coastal zones also offer excellent opportunities to extract maximum output. More so, the unique and dynamic nature of the coastal belt needs special study and extensive research for sustaining any future project along the coastal line. Combining all mentioned above, an all-embracing study and research work on water resources, costal zones and its relevancy on the overall environment is a call for time. Realizing this importance and with a view to contributing in uplifting the socio-economic condition of the country, MIST took the bold step to produce experts on these very specialized fields. It is expected that relevant and all-encompassing studies and researches by this newly introduced department will reduce much of the existing 'knowledge and understanding gap' in those fields.

This department is enriched with highly experienced and disciplined teaching staffs having wide vision. This department highly promotes interactive learning and collective class-environment which helps the students become more engrossed in employing themselves with the subject-matter and develop their depth of knowledge in engineering education. In addition, the programs emphasizing on engineering science and design, provide students with ample opportunity to put their knowledge into practice by solving real-world problems under the guidance of our readily approachable faculty members. This department also contributes in the country's development projects. All-in-all, within a very short span of time, the EWCE department of MIST has spread its outreach throughout the nation and is playing a vital role in building an ingenious society enriched with engineering transcendence and revolution.

Petroleum and Mining Engineering (PME) Department

The Department of Petroleum and Mining Engineering (PME) offers Bachelor of Science in Petroleum and Mining Engineering which is one of the top university level programs among the engineering universities in Bangladesh. The Department of Petroleum and Mining Engineering started its academic work on 3 February 2016 with the objective to produce qualified personnel in the field of Petroleum and Mining Engineering, skilled enough to exploit the resources in sustainable manner in national and international context.

The mission of the department of Petroleum and Mining Engineering is to guide all efforts aiming to build, sustain, incorporate, convey and apply Petroleum and Mining Engineering knowledge, and to augment the human resources of these disciplines and thus to ensure an energy-secure future for the nation, that balances environmental impact and affordable energy supply. To foster an environment in which students learn to think, conduct, research, apply knowledge and achieve success in a diverse and changing global economy, and to guide the students to develop themselves as professionals with high ethical and moral values.

To fulfill this mission, the PME department is committed to pursuing excellence in Reservoir Engineering, Production Engineering, Well Drilling and Completions, Rock Mechanics, Mining System, Mine Instrumentation and Machineries, Minerals Processing, Mining Survey, Mine Ventilation and Environmental Engineering considering sustainable resource engineering.

The department of Petroleum and Mining Engineering intends to be nationally and internationally recognized through education and research programs in both Petroleum and Mining discipline. The vision is to enrich national and global energy industry by applying fundamental engineering and scientific knowledge accompanied by the latest innovation into industry applications.

Faculty of Electrical and Computer Engineering

Computer Science and Engineering (CSE) Department

Department of Computer Science & Engineering (CSE) was established in the academic session 2000-2001 as CSIT. From a modest beginning, offering undergraduate BSc program to only military students, the department has now evolved as one of the largest depts at MIST. The department of CSE now offers B.Sc. programme at the undergraduate level, M.Sc. and M.Engg. at the post graduate level, and also doctorate in philosophy (PhD) degree.

The dept of CSE boasts of highly qualified faculties, along with state of the art learning infrastructure which provides an ideal platform for students to hone in their skills in the field of computer sciences. The dept provides an ideal environment for the student to specialize in contemporary fields of Computer Science including Artificial Intelligence, Robotics, Machine Learning, Computer Vision and Pattern Recognition, Data Analytics, Network & Data Security to name a few. The dept also collaborates with both the industry and Govt. departments and agencies to establish a leadership for both stake holders which is especially beneficial for students.

The Department of CSE draws its strength from the experienced pool of highly professional faculties. The faculties are drawn in from diverse nationalities, diverse prior professional exposure (Military, Industry, Academia), diverse educational qualification and background and thus provide large areas of expertise for students to benefit. Based on requirements, domain specialists are drawn from other educational institutes like BUET and also from the industry.

Electrical, Electronic and Communication Engineering (EECE) Department

The foundation of EECE department was laid in 2003. It is functioning under the faculty of Electrical and Computer Engineering. The department is offering both undergraduate and postgraduate programs on M.Sc., M Engg and PhD. The department is subdivided into three major areas: Power, Electronics and Communication in the graduate and undergraduate curriculum. At present this department is served by a group of competent, qualified faculty members along with several renowned professors from BUET as guest faculties. Around 281 undergraduate and 156 postgraduate students are currently studying in the department. The department offers a diverse educational experience with a focus on traditional areas as well as emerging areas. The faculties are always engaged in numerous research areas including satellite navigation space engineering, VLSI, optoelectronics, properties of materials, compound semiconductor devices, radar detection and tracking, optical fiber communication, free space optical communication, wired and wireless communication, renewable energy and thin film technology. At present, there are 35 faculties in the department. The department frequently arranges international conferences, seminars and project competitions to enhance the knowledge of the students. The students of this department participate in various national and international competitions throughout the year. Under this department, MIST Robotics Club (MRC) and IEEE Student Branch are performing in the national and international platform. The department got accreditation from BAETE in September 2010. Post graduate program under this department has started functioning since October 2013.

Faculty of Mechanical Engineering

Mechanical Engineering (ME) Department

Mechanical Engineering is one of the oldest engineering disciplines which lies at the foundation of almost any physical system. This discipline deals with energy and its conversion, manufacturing process and equipment, control system, mechanics, etc. Mechanical engineers are thus employed in various plants, industries, research institutes around the globe for design and development, proper function, and maintenance of system and equipment. Some even serve in the middle to upper echelons of management due to their comprehensive knowledge and leadership skills.

The department of Mechanical Engineering in MIST offers B.Sc., M.Sc., M.Engg. and PhD degrees to enthusiastic students seeking a leading role in various industries and cutting edge research activities. Since its inception in the year 2003, this department has awarded the graduate degree to 780 graduates, who are currently serving in various organizations in both home and abroad. At present, there are 259 students enrolled in the undergraduate program. To support this vast number of students the department boasts 30 qualified faculty members, including 5 Professors/ Senior Instructors. Many of the faculties have postgraduate degrees from various reputed universities abroad. To provide sound technical knowledge, currently, the department houses 12 laboratories equipped with modern equipment and supervised by expert technicians. Regular industrial visits, seminars, webinars, and workshops are also arranged to expose the students to the current trend in both the industry and research arena. The department's club 'MotoMIST', which is solely managed by the students, helps to engender and nurture leadership quality in them. For its continual effort and success to provide quality education, the BSc in Mechanical Engineering program has been accredited by BAETE, IEB since 2010 and in April 2018 it received a grade 'Good' from BAETE, IEB.

Aeronautical Engineering (AE) Department

Aeronautical Engineering (AE) department of MIST started its journey on 1st February 2009. The department is currently offering B.Sc., M.Sc. and PhD in AE program. The aim of AE Department is to provide students with knowledge in the areas of Aerodynamics, Aerospace Propulsion, Aircraft Loading & Structural Analysis, Aerospace Vehicle Design, Space Engineering, Advance Aerospace Technology and Avionics. The department is organized into two major divisions: Aerospace and Avionics. There are total 208 students in AE department including overseas students from different countries like Palestine, Maldives and Nepal. Currently the department is running its 12th batch with successful graduation of 8 batches of 441 students. 23 faculties specialized from both Civil and Military backgrounds are serving in this department. Out of them, two faculties are from Indian Air Force.

Graduates of AE department are serving in National and International arenas. A significant number of graduates are pursuing higher studies abroad in USA, Europe, Canada and other countries. In professional fields, AE Graduates are employed in Airlines, Corporate Sector, Public Sector and Armed Forces. The Alumni body of the department; "AE Alumni Society" is active in promoting career and future opportunities for AE graduates.

AE department has participated in many National and International competitions and achieved praise-worthy results. Mentionable are NASA Lunabotics Mining Competition (USA), DBF Competition (USA), SAE Aero-design competition (USA), Future Flight Design (FFD). Aeronautical Engineering Department of MIST has organized 1st National Aero Design Competition in 2014 which is a milestone in the era of aviation in Bangladesh. The Department has also organized workshops and short courses to enlighten the interested people from diverse background about different aspects of Aeronautical Engineering.

The Board of Accreditation for Engineering & Technical Education (BAETE) approved Aeronautical Engineering program of MIST in 2016. AE Department has already signed a MOU with Biman Bangladesh airlines. The department is in the process of concluding MOU with Civil Aviation Authority of Bangladesh (CAAB), US Bangla airlines, SPARSO, Beijing University of Aeronautics and Astronautics (China) and other universities/organizations at home and abroad for the improvement of its academic capabilities.

Naval Architecture and Marine Engineering (NAME) Department

Divine blessings of 1,10,000 sq km exclusive economic zone, 712 km coast lines and 700 rivers necessitate Bangladesh to have close relation to shipping and shipbuilding. Moreover, the government of Bangladesh has declared shipbuilding as "The Thrust" sector for national economic development and industrialization. Thus, we need to produce human resources qualified with design, construction, repair and maintenance of ships and offshore structures. In this context, Department of Naval Architecture and Marine Engineering at MIST started its journey with undergraduate program in the academic session 2012-2013. The department has also started postgraduate program i.e. M.Sc. (Engg), M. Engg, and Ph.D. from the year 2018-2019.

NAME is a very interesting branch of study. Graduates in this field of study have actually dual degrees. In one way these graduates are naval architects and another way they are marine engineers. Study in NAME provides insight to design, to build, to operate and to maintain vessels which move just above on or under the sea. These include tankers, container ships, passenger ferries, battleships, aircraft carriers, submarines, drilling platforms, hovercraft, yachts, and many other kinds of vessels. It can be said that naval architects connect nation to nation and civilization to civilization through seas and oceans. Basically, a good naval architect is he who can acquire required knowledge of designing marine vehicles and structure satisfactorily, and utilize such knowledge for the benefit of mankind. A good naval architect has to build ship which must possess good S3 i.e. strength, stability and speed and good C3 i.e. comfort, communication and control that meet national and international rules and regulations. Marine design remains always as special one in terms of quality, reliability and appearance.

Due to versatility of the field of study, the graduates of naval architecture and marine engineering have a wide range of employment and research opportunities worldwide. Moreover, naval architects have stake relations with certain organizations like shipyards, classification societies, fleet owners, flag states, authorities, shipping authorities, petroleum companies operating at offshore, defense forces and so on. Depending on their qualifications, capabilities and personal interests, they may become specialized in one field or develop broad experience in several areas. By personal experience I do feel that it is no way less effective to working as a marine engineer than that of a naval architect. The government organizations in Bangladesh, where a NAME graduates may be consumed, are Department of Shipping (DOS), Bangladesh inland Water Transport Authority (BIWTA), Bangladesh Inland Water Transport Corporation (BIWTC),Bangladesh Shipping Corporation (BSC), Chittagong, Chittagong Port Authority (CPA), Mongla Port Authority (MPA), Payra Port Authority (PPA) Bangladesh Power Development Board (BPDP), Bangladesh Water Development Board (BWDB), Roads and Highways, Bangladesh Army, Bangladesh Navy, Bangladesh Coast Guard, Khulna Shipyard (KSY), Dockyard and Engineering Works (DEW) Narayanganj, Chittagong Dry Dock (CDD) etc. Besides the government organization, a good number of private organization and classification societies are available in Bangladesh to provide jobs for the NAME graduates. Once experience is gathered, it is possible for naval architects and marine engineers to gain promotion to senior technical and management positions in the industry, commerce and government.

Industrial and Production Engineering (IPE) Department

Industrial and Production Engineering (IPE) department was established in 2016 under the faculty of Mechanical Engineering to develop much needed professionals required for the growth of modern industries. The focus of the undergraduate program in IPE is manufacturing, quality, process design, productivity improvement and management to meet the emerging technical needs of the modern industries. Education in IPE is very much leaned to practical situations as such the relationship of the department with the industries will be strengthened through their involvement in curriculum development and various programs like seminars, visits and student projects. The department of IPE aims not only to produce efficient engineers, but also to produce well-educated conscientious leaders who can contribute to the development of the country through ameliorating our industries.

The cogitated and improvised under-graduate course of Industrial and Production Engineering emphasizes on manufacturing and improvement of productivity, thus students will learn trends of dynamics and control and hence develop a sound knowledge about overall industrial production and management. They will also learn to analyze the emerging technical trends of the industry.

Faculty of Science and Engineering

Biomedical Engineering (BME) Department

The Department of Biomedical Engineering journey began its journey in February 2015, with the first undergrad Biomedical Engineers in Bangladesh. BME aims to improve human health by applying engineering principles and methods to medical problems. With the high demand for Biomedical Engineering in the country and abroad, students have versatile means for career development after completing the degree. Today, biomedical engineers are employed in industry, hospitals, research and development labs, government regulatory agencies, etc. Life-saving devices like cardiac pacemakers, defibrillators, artificial kidneys, blood oxygenators, prosthetic hearts, and implants, etc., along with the commonly known medical equipment as CAT, PET, MRI, functional NMR, potential mapping, CT scan, X-ray machine etc. all are the products of this discipline.

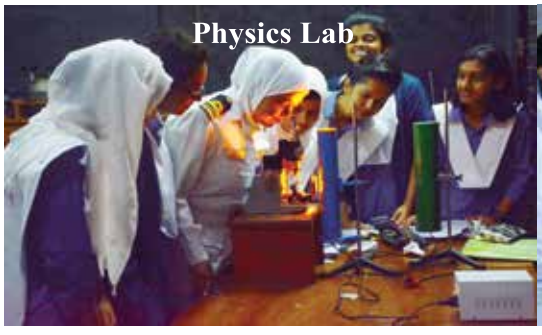
The undergraduate program in BME provides a strong foundation in the basic sciences, mathematics, engineering, and life sciences. With eight new state-of-the-art laboratories in the new tower building of MIST, the program offers the choice of specialization in one of four tracks: Instrumentation, Regenerative Medicine, Imaging, and Biomechanics and Rehabilitation Engineering. Undergraduates will have the ability to contribute significantly to the development of new knowledge, understanding, and innovative solutions in the health care industry and across a wide variety of healthcare-related research applications. Graduates of BME have the scope to contribute to projects on a national scale and the opportunity to participate in seminars and job fairs designed to prepare them for their career after graduation.

Nuclear Science and Engineering (NSE) Department

Nuclear Science and Engineering and its uses will play an important role to face the challenges of the 21st century and to promote Bangladesh as per the vision of the government. Now a days, Bangladesh is marching gradually to incorporate the uses of nuclear technology in producing power, medicine, industrial and agricultural products etc. From Bangladesh perspective, professionals to take care of the nuclear infrastructure, equipment and material like nuclear power plant, nuclear fuel and other radioactive materials especially for power generation and healthcare diagnostics and to integrate the latest technology effectively for quality citizen services were a long-felt necessity. Therefore, start-up of this nuclear education is a very time demanding effort. A major goal of the Nuclear Science and Engineering (NSE) Department is to advance the core disciplines needed to achieve new, beneficial applications of nuclear science and technology. Our students will study modern nuclear techniques which will find applications in medical imaging, radiation-based therapy, contraband detection and nuclear security and safeguards. In near future, our nuclear engineers/nuclear scientists will be employed in nuclear power plants, other power industries, nuclear medicine centers, research facilities, government regulatory agencies in our country as well as around the globe.

NSE Department was raised in 2014 and the first academic session started on 5th February 2015 at Military Institute of Science and Technology (MIST). There are 40 undergraduate students in the maiden batch. NSE Department. has also started MSc, MEngg and PhD programme from October 2015 session.

Science and Humanities (Sc & Hum) Department


Physics Lab


Chemistry Lab

Department of Science and Humanities has started its journey since 19 April 1998 with the inception of MIST. From the beginning, this department has always been playing a pivotal role in laying the foundation of science and humanities for the potential engineers. This department basically provides the relevant fundamental undergraduate courses required for engineering education. Besides undergraduate program, M. Phil program in Mathematics, Physics and Chemistry has been offered since the October 2014 session.

The mission of the Department of Science and Humanities is:

- ✓ to provide the fundamental knowledge in applied science required to strengthen the backbone of all Engineering Departments of MIST.
- ✓ to develop a teaching-learning environment for exploring basic science and its application in the field of engineering and technology.
- ✓ to facilitate research work for the development in the field of science and engineering to provide fundamental knowledge on economics, accounting and sociology to apprehend ethical aspects of engineering education.
- ✓ to strengthen English communication skills of engineering students.

Programs offered by Department of Science and Humanities:

- ✓ Master of Philosophy Programs: MPhil in Physics, MPhil in Chemistry and MPhil in Math.
- ✓ Training Program: IELTS Preparation Course

REGULATORY BODIES

Council of MIST

- **Chairman:** Honourable Minister, Ministry of Education, Government of the People's Republic of Bangladesh

- **Vice Chairmen:**
  - Chief of Army Staff, Bangladesh Army
  - Chief of Naval Staff, Bangladesh Navy
  - Chief of Air Staff, Bangladesh Air Force

- **Members:**
  - Principal Staff Officer, Armed Forces Division (AFD)
  - Secretary, Ministry of Defence (MOD)
  - Vice Chancellor (VC), Bangladesh University of Professionals (BUP)
  - Engineer in Chief (E in C), Army Headquarters (AHQ)
  - Commandant, MIST
  - Commandant, Bangladesh Military Academy (BMA)
  - Commandant, Bangladesh Naval Academy (BNA)
  - Commandant, Bangladesh Air Force Academy (BAFA)
  - Representative of the VC (Prof eqvt), Faculty of Science, Dhaka University (DU)
  - Representative of the VC (Prof eqvt), Bangladesh University of Engineering and Technology (BUET)
  - All Deans of Faculty (CE, ECE, ME, and Sc & Engg), MIST
  - Representative of the Ministry of Education
  - Representative of the Ministry of Finance
  - Representative of the Ministry of Science and Technology

- **Secretary:** Colonel Staff, MIST

Governing Body of MIST

- **Chairman**: E in C, Bangladesh Army / Commandant , MIST (As per seniority)

- **Vice Chairman:** E in C, Bangladesh Army / Commandant , MIST (As per seniority)

- **Members:**
  - Representative of the VC, Faculty of Science, DU
  - Representative of the VC, BUET
  - Representative of the VC, BUP
  - Dean / Senior Instructor appointed by Commandant BMA / Commandant MIST
  - Dean / Senior Instructor appointed by Commandant BNA / Commandant MIST
  - Dean / Senior Instructor appointed by Commandant BAFA / Commandant MIST
  - Director General, Training Directorate, AFD
  - Director, Military Training, Bangladesh Army
  - Director, Naval Training, Bangladesh Navy
  - Director, Air Training, Bangladesh Air Force
  - All Deans of Faculty (CE, ECE, ME, and Sc & Engg), MIST
  - Director, Research & Development (R&D), MIST
  - Director Administration, MIST
  - Representative of MOD
  - Representative of Ministry of Education
  - Representative of Ministry of Finance
  - Representative of Ministry of Post, Telecommunication and Information Technology

- **Member Secretary:** Colonel Staff, MIST

Academic Council of MIST

- **Chairman:** Commandant, MIST

- **Members:**
  - Representative of the VC, Faculty of Science, DU
  - Representative of the VC of BUET
  - Representative of the VC of BUP
  - All Deans of Faculty (CE, ECE, ME, and Sc & Engg), MIST
  - Representative of Commandant, Engineering Faculty, BMA
  - Representative of Commandant, Engineering Faculty, BNA
  - Representative of Commandant, Engineering Faculty, BAFA
  - Director, Research & Development (R&D), MIST
  - Heads of all Departments, MIST
  - Colonel Staff, MIST
  - Controller of Exam, MIST
  - One professor form each faculty, MIST (nominated by faculty dean)
  - Representative of Training Directorate, AFD
  - Representative of Military Training Directorate, AHQ
  - Representative of Naval Training Directorate, NHQ
  - Representative of Air Training Directorate, Air HQ
  - Representative of MOD
  - Representative of Ministry of Education

- **Member Secretary:** General Staff Officer Grade-1 (Academic), MIST

DIRECTORATE OF STUDENTS' WELFARE (DSW)

1. The Directorate of Students' Welfare (DSW) began its journey from 15 June 2016 with the vision of excellence in the provision of administrative leadership and counseling services to students at the Institute; and the promotion of educational and administrative support to all structures of the Institute. The mission of this wing is to provide leadership, social, extracurricular and academic counseling programmes to all students. The Department of Student Welfare also seeks to challenge students to become responsible and productive citizens of society and to support the Institute`s educational and administrative goals. DSW wing currently offers various opportunities to the students of MIST in order to enhance their cognitive skills and overall knowledge via arranging different competitions, seminars, workshops and career advisory programmes.

2. With its excellent professional competency, DSW wing is working relentlessly for the welfare of the students. Additionally, DSW wing also facilitates necessary financial aid to the students by processing stipends in different categories. As such, many students have been able to continue incessant study at MIST. Moreover, DSW wing also patronizes all the clubs running by the students and monitors their activities for attending the creativity among the students. One of the most important activities of the DSW wing is mentoring Alumni activities. Furthermore, DSW wing is always open to all students of MIST regarding any difficulties at any time.

3. **Facilities providing by DSW Wing**

   a. **Stipend.** MIST provides stipend facilities to the students**.** Other than level 1, students of all levels have the opportunity to apply for stipend basing on their academic result and financial condition. To render educational support to the students for their uninterrupted study, parents economic condition is assessed under 17 different categories. A board of officers headed by the director of the students welfare select the students and the percentage of stipend.

b. **Counseling Service.** MIST has the counseling service for the students under a qualified and professional counselor. The counselor of DSW wing works actively with the students and uses a variety of skilled interventions and thereby offers both psychological and emotional support. It helps the students to develop insight into their situation and help them to build better personal resources with greater resilience. Besides the particular cases, online workshop sessions are conducted on mental health related issues for the students where they are benefitted by developing practical skills like assertiveness, relaxation techniques and resilience building.

c. **MIST Student Welfare Fund.** MIST has a Student Welfare Fund which operates with the objective of making financial assistance available for meeting the welfare needs of the students. The elected captains among the students run the welfare fund which is monitored by the DSW wing. The sources of the student welfare fund are:

(1) Voluntary contribution from the students
(2) Contribution from the alumni
(3) Contribution from the MIST authority and Faculty
(4) Voluntary contribution from other sources

The elected captains shall discuss and shall decide upon the applications submitted by the student seeking financial support from Students Welfare Fund which will be finally approved by the director of DSW wing.

d. **Club Facilities and Campus Hour**. MIST offers 12 different clubs for the students to join and get the opportunity to show their creativity. This also gives a breathing space to the students from monotonous study. Student has the freedom to select and join more than one club from the following categories. To add variety and flavor, students of all level also organize campus hour at regular intervals.

(1) MIST Computer Club
(2) MIST Career Club
(3) MIST Debating Society
(4) MIST Drama and Film Society Club
(5) MIST Einthoven Club
(6) MIST Innovation Club
(7) MIST Aeronautics & Astronautics Club
(8) MIST Environmental Club
(9) MIST Literature and Cultural Club
(10) MIST Photographic Society
(11) MIST Robotics Club
(12) MOTO MIST Automotive Club

e. **Osmany Hall.** MIST provides a good environment and facility of residence for the students who are coming from different parts of the country and abroad with bare minimum expense. At this moment MIST has an enthralling hall named “Osmany Hall”. The eight-story reinforced concrete facility has a male and a female complex where 524 male and female students can be accommodated. The Male Wing has one extension accommodating 110 students, in total 634 students (male and female) can be housed at the residential facilities of Osmany Hall.

f. **Sports Facilities.** Sports help to develop physical fitness and mental well-being. MIST motivates and facilitates students both in indoor and outdoor sports. The institute has well equipped facilities in both indoor and outdoor games, like Cricket, football, basketball, table tennis, chess, carrom etc. Every year the institute hosts inter departments Basketball, Football, Volleyball and Cricket Competition. Sports refresh minds, as a result students can concentrate and focus on education in a sound mind.

FACILITIES AND SERVICES

Class Room MIST has adequate number of air conditioned classroom with multimedia facilities.

Accommodation MIST, in principle is a residential institute. The residential hall with all modern facilities is named 'Osmany Hall' can accommodate 935 students (male 551 and female 384). Each room has internet facilities. Students are provided with well-furnished accommodation.

Library MIST has a well-arranged library enriched with about 52,000 books and a good number of periodicals, journals and magazines from home and abroad. It also subscribes a number of Bengali and English newspapers, periodicals and e-journals. Library has cyber cafe with Wi-Fi facilities. In addition to that each department has its own library enriched with adequate text and reference books.

Medical Support MIST Medical Centre has residential physician, medical staff and equipment. MIST Medical centre provides required medicine and other necessary support as prescribed by the Medical Officer. Civil students are sent to Kurmitola General Hospital for better treatment.

Transport MIST provides bus services for the students. The buses move in nine routes: MIST to Shahbag, MIST to Abdullahpur, MIST to Azimpur and MIST to Dhaka Cantonment (Jahangir Gate). A student is charged with 1500 BDT per year as transport charge.

MIST IT Centre IT Centre provides internet browsing facilities to students and faculties.

Cafeteria Cafeteria provides meal with different types of cuisine within reasonable price.

Fitness Centre Fitness Centre provides ample opportunity for the students to keep their body and mind fit.

Sports and Recreation MIST has got adequate facilities for both indoor and outdoor games including table tennis, badminton, football, and cricket. Students can also enjoy a wide variety of athletic pursuits. Besides, picnics and cultural competition, celebration of national days are also arranged regularly in befitting manner.

MIST Debate Society MIST Debate Society (MISTDS) arranges debate competition on regular basis.

MIST Career Club MIST career club was established in June 2016. Each year it organizes career festival in collaboration with different institutions and organizations. Last year MIST Career Fest was held on13th August 2016 with the assistance of BD jobs.com.

MIST Innovation Club The noble purpose of branding MIST with science, MIST Innovation Club (MIC) has commenced its journey on 12 February 2020. With the aim to brand MIST in the field of advanced in science and technology in Bangladesh. Our club thrives to create a platform to inspire the students of MIST in achieving technical and also soft skills to build innovative products or solutions that will represent MIST to the nation. Our eminent maxim is to "*Innovate to Serve*".

MIST Photographic Society MIST photographic society "FOCUS" started its journey in April 2015. It organizes workshop, seminar, exhibition and short course on photography etc. periodically.

MIST Drama and Film Club To promote the art and culture of Bengali heritage, MIST Drama Club was initiated in 2015. It organizes different types of Drama on various occasions.

MIST Literature & Cultural Club MIST Literature and Cultural Club was formed in 2014 to create various opportunities to practice art and our culture via organizing various workshops, events etc. MIST Literature and Cultural Club believes technology and creativity do not contradict each other-rather both of them contribute to proper manifestation of a student. To uphold this belief, MIST Literature and Cultural Club has gloriously treated its way far by inspiring and involving the students.

MIST Computer Club Computer Club arranges various workshops and competitions regarding different programming languages and also conducts club activities on regular basis.

MIST Aeronautic and Astronautic Club MIST Aeronautic and Astronautic Club is supervised by the Department of Aeronautical Engineering. Its aim is to widen the knowledge of the enthusiastic students of MIST.

MIST Einthoven Club MIST Einthoven Club is supervised by the Department of Biomedical Engineering which aims to broaden the knowledge of its members about recent development and resources around the globe on Biomedical Engineering.

MIST Automobile Club MIST Automobile Club is supervised by the Department of Mechanical Engineering which holds various workshops and club activities regularly.

MIST Environmental Club MIST Environmental Club is supervised by the Department of EWCE which wins to keep its member up to date regarding recent technologies and innovation on Environmental Engineering.

MIST Robotics Club MIST Robotics club was established in the year 2015 under the guidance of EECE department. To cope with the technological advancement MIST Robotics Club provides opportunity to the students to explore their innovative ideas on activities. It organizes Robotics workshop and competition every year. It also organizes the Robolution competition which is the largest robotics competition in Bangladesh.

Hydraulic Pump Testing Bench The "Hydraulic Pump Testing Bench" was inaugurated on 24 May 2016. This Testing Bench is one of the landmark establishments of MIST in the path of research and project work. By using updated and advanced technology, this unit will surely serve to make the institution a "Centre of Excellence".

Automotive Engineering Equipment Testing Centre The "Automotive Engineering Equipment Testing Centre" provides the technological support in the field of research and project work. It also provides students with ample opportunity to utilize their knowledge into practice by solving real-world problem. It also provides necessary technical support to different governmental organization regarding type approval of motor vehicles and other tests.

Computer Repair and Maintenance Centre The "Computer Repair and Maintenance Centre" was inaugurated on 01 December 2013. MIST has well enriched "Computer Repair and Maintenance Centre" for repairing the defective computer and accessories.

Centre for Energy, Environment Studies and Research (CEESR) The "Centre for Energy and Environmental Studies" of MIST is under the auspices of the department of EECE which is engaged in education, research, and professional training in the fields of energy and environmental analysis. The perspective of the centre is multi-disciplinary and problem-oriented.

Captaincy To promote leadership qualities among the students MIST Captain on various categories are elected from the students, namely MIST Captain, MIST Cultural Captain, MIST Debate Captain and MIST Sports Captain. Besides these, department captains of same categories and class captains are also elected for smooth functioning of students' activities.

Environment and Climate Change Studies Centre Climate change has become a burning issue for sustainable development. To contribute in capacity building and develop an appropriate technology, CE Department has incorporated environmental engineering in her post graduate program. A Research Centre named "Environment and Climate Change Studies Centre" is facilitating research work on this issue.

Centre for Disaster Management Studies Bangladesh is a disaster prone country. To provide quality human resources and facilitate disaster related research work for Disaster Management in Bangladesh a research centre named "Centre for Disaster Management Studies" under CE Department is functioning.

Inauguration Ceremony Each year launching ceremony of academic session is arranged for apprising new students regarding the salient aspects of MIST activities. MIST welcome all the young engineering students including their guardians in this ceremony. There are interactive session of the guardians with MIST authority and orientation with MIST campus. All the students of level-1 in different disciplines (both military and civil) join the ceremony.

Graduation Dinner MIST organizes graduation dinner in honour of the outgoing students. Newly graduates from MIST attend this program after successful completion of their graduation from MIST. Students of level-4, all faculties and staff officers also join the dinner.

Collaboration with Other Universities For expanding research capability including undertaking of faculty-students exchange program MIST has signed Memorandum of Understanding (MoU) with numbers of organizations and universities both in home and abroad. Few notables are: Mershon Center For International Security Studies and The School of Earth Sciences, The Ohio State University (OSU), Columbus, Ohio, United States, The Institute of Water Modelling (IWM) Bangladesh, University of Malaya (UM), Stamford University Bangladesh, Port City International University, Institute of Information Technology (IIT) & Jahangirnagar University (JU), International Islamic University Malaysia (IIUM), University Kebangsaan Malaysia (UKM), University Tenaga Nasional (UNITEN), Kotelawala Defence University (KDU) Srilanka, United States Naval Academy (USNA), University Technology Mara (UITM), Bangabandhu Sheikh Mujibur Rahman Maritime University (BSMRMU), Bangladesh, Indian Institute of Engineering Science & Technology (IIEST) India, etc.

MoU

MIST has established Memorandum of Understanding with numbers of universities in home and abroad. The universities are as follows:

Ser	University/ Institution	Year	Remark
1.	Two Faculties from Indian Air Force are under Faculty Exchange Program, India	2009	MoU is completed
2.	PLA (People's Liberation Army) University of Science and Technology (Nanjing), China	2012	MoU is completed
3.	Water-Aid Bangladesh- for Rainwater Harvesting System, Bangladesh	2013	MoU is completed
4.	United States Naval Academy- for exchanging faculty and Joint Research Program, USA	2013	MoU is completed
5.	United States Naval Academy (USNA), Annapolis, USA	2014	MoU is completed
6.	General Sir Kotelewala Defence University, Sri Lanka	2014	MoU is completed
7.	Stamford University Bangladesh	2014	MoU is completed
8.	Port City International University, Bangladesh	2014	MoU is completed
9.	University Kebangsaan Malaysia (UKM)	2014	MoU is completed
10.	Institute of Information Technology (IIT) & Jahangirnagar University (JU), India	2014	MoU is completed
11.	University Technology Malaysia (UTM), Malaysia	2014	MoU is completed
12.	International Islamic University Malaysia (IIUM)	2014	Letter of Collaboration is Completed
13.	The Ohio State University, Columbus, Ohio, United States	2015	MoU is completed
14.	Dockyard & Engineering Works Ltd, Sonakanda, Bandar, Narayanganj, Bangladesh	2015	MoU is completed
15.	University Technology Mara (UITM), Malaysia	2015	MoU is completed
16.	University of Malaya, Malaysia	2015	MoU is completed
17.	Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh	2015	MoU is completed
18.	Active Fine Chemicals, Bangladesh	2015	MoU is completed
19.	Biman Bangladesh Airlines, Bangladesh	2015	MoU is completed
20.	ICT Division, Ministry of Post & Telecommunications & Information technology, Bangladesh	2015	MoU is completed
21.	Indian Institute of Engineering Science & Technology (IIEST), Shibpur, India	2015	MoU is completed
22.	Gono Bishwabidyalay, Bangladesh	2016	MoU is completed
23.	Global Institute of Science and Technology (GIST), Australia	2016	MoU is completed
24.	Rosatom Technical Academy Russian Federation, Russia	2018	MoU is completed
25.	Defence Institute of Advanced Technology (DIAT), India	2019	MoU is completed

SEMINARS

Following are the seminars conducted by various departments of MIST from 2016 to 2020

Ser	Seminar	Organizing Department
1.	1st Regional Seminar on Climate Change, Water Security and prospects of Rainwater in Bangladesh	CE
2.	Seismic Performance Assessment and Design of Structures	CE
3.	Building Construction and Structural safety	CE
4.	Building Construction and quality control	CE
5.	Seminar on " Landslide and Ground Movement Effects on Onshore and Offshore Structure"	CE
6.	Seminar on "Seismic Design of Structure-ASCE-7"	CE
7.	Seminar on "Scope and Challenges of Higher Studies in Top Universities of World".	CE
8.	Seminar on campus activation plan by ethics advanced technology ltd (EATL)"	CSE
9.	Seminar on Eatl Prothom Alo Apps Contest 2015	CSE
10.	Seminar on Cyber Security and Cert Awarding Ceremony of Certificate Course on Cyber Security -2015	CSE
11.	Seminar on Cloud Computing, GNSS (Global Navigation Satellite System) and Campaigning on EATL (Ethics Advanced Technology Limited) Prothom Alo Apps Contest 2016	CSE
12.	Seminar on Internet of Things (IoT) and Telecom Regulatory Environment in Bangladesh	CSE
13.	Seminar on Internet of Things (IoT)	CSE
14.	Cyber Security Seminar - 2019	CSE
15.	Effective Academic and Review Manuscript Writing	EECE
16.	Robolution-2017	EECE
17.	Seminar on "Student Professional Awareness & Appearance"	EECE
18.	Seminar on "Free Seminar on the Aspects of IEEE"	EECE
19.	"5 MVA Substation Planning, Designing & Simulation Using Power System Analysis Software (ETAP)"	EECE
20.	"Power Sector of Bangladesh and Employment Opportunities Overview"	EECE
21.	"Lightning and Thunderstorm: Forecasting, Awareness & Protection"	EECE
22.	"Basic Internet Networking and Fellowship for Students Related to Internet Networking"	EECE
23.	"Internet Connectivity on Perspective of Bangladesh and Basic Internet Networking for Beginners"	EECE
24.	"Research Paper Writing"	EECE
25.	"Tri-Robo-Cup 2020"	EECE
26.	International Conference on Electrical Engineering and Information & Communication Technology (iCEEiCT-2015)	EECE
27.	International Conference on Electrical Engineering and Information & Communication Technology (iCEEiCT-2016)	EECE
28.	4th International Conference on Electrical Engineering and Information & Communication Technology (iCEEiCT 2018)"	EECE
29.	Seminar on "Building Awareness on Safety and Security of Elevators among Users and Certification Authority Development for Lift in Bangladesh."	ME
30.	Seminar on "Engineering for Global Innovation and Introduction to Research Work on Biomaterials: Mechanical Engineering Aspect"	ME
31.	Prospect of Low Carbon Energy Technologies Around the World and its Transition.	ME
32.	Seminar on "Safety Ground Transportation Systems in Bangladesh"	ME
33.	1st International Conference On Mechanical Engineering And Applied Science.(ICMEAS-2017)	ME

Ser	Seminar	Organizing Department
34.	Seminar on ‘‘Mechanical Behavior of High Temperature Ceramics for Space Applications’, 2018	AE
35.	Seminar 2014: Accident in Bangladesh Inland Waterways: Causes and Remedies	NAME
36.	Seminar 2016: Prospects of Shipbuilding Industries and Opportunities of Naval Architects in Bangladesh	NAME
37.	Seminar 2018: Necessity and implementation of International Association of Classification Societies (IACS)	NAME
38.	Seminar 2019 (World Maritime Day): Sustainable Shipping for a Sustainable Planet	NAME
39.	Seminar on Environmental Responsibilities of Architects and Local Practice, 2017	Arch
40.	Seminar on Earthquake Resilient Buildings: Design Consideration for Architects, 2016	Arch
41.	Seminar on Water in Light, 2017	Arch
42.	Seminar on Building Material: Innovation and Influence on Architecture, 2018	Arch
43.	Seminar on Pedagogy of The Built Environment Design Education For 21st Century, 2018	Arch
44.	Seminar on Digital Architecture, Why? 2018	Arch
45.	Seminar on Housing is More Than Shelter, 2018	Arch
46.	Seminar on City Life Line, 2019	Arch
47.	Seminar on School in Tropic: Place of Memory, Joy and Inspiration, 2019	Arch
48.	Seminar on Organic Materials for Grassroot Construction in Rural Bangladesh: Cases and Prospects, 2019	Arch
49.	Seminar on Content and Framework of Urban Plans, 2019	Arch
50.	Seminar on Breaking the Ice, Professional Practice, 2019	Arch
51.	Seminar on Real Housing Practices in Dhaka, 2019	Arch
52.	Biomedical Engineering: The Essential Prerequisite for Effective Healthcare in Bangladesh	BME
53.	Seminar on “BioSafety Awareness: A Pathway to Improved Public Health”	BME
54.	Bangladesh International Conference for Biomedical Students & Young Doctors (BICoBS)	BME
55.	Seminar on: ‘Regenerative Medicine’	BME
56.	Seminar on “World Birth Defects Day: Social Awareness and Prevention”	BME
57.	A Presentation on: ‘Career Brief’	BME
58.	1st Meeting of: ‘Industrial Advisory Panel’	BME
59.	Biomedical Engineering: Scope of Research and Its Applications	BME
60.	Job Fair for Biomedical Engineers	BME
61.	Challenges and Future Prospects in the Sectors of Environment, Water Resources, and Coastal Zones: Perspective from Potential Engineers	EWCE
62.	1st International Conference on Climate Change and Water Security	EWCE
63.	AQUAwareness- A Seminar and Exhibition on the Occasion of World Water Day 2018	EWCE
64.	Seminar on “VVER Technology Based Nuclear Power Plant and Preparation for New Comer Countries”	NSE
65.	Siminar on “Present Status of Nuclear Energy Development in Bangladesh”	NSE
66.	Post Graduate Thesis Seminar	NSE
67.	Guest Lecture on Nuclear Security Culture	NSE
68.	Seminar on “Energy Scenario and Prospect of Petroleum & Mining Engineering in Bangladesh”	PME
69.	Sustainable Energy Sectors Development; its Challenges and Energy Security of Bangladesh" and “Job Fair	PME

WEBINARS

Ser	Webinar	Organizing Department
1.	Webinar on "SMRF & IMRF Design and Detailing of Structures; Challenges and Way out"	CE
2.	Webinar on "Silent Piling Technique"	CE
3.	A Webinar of two consecutive lectures titled "Evaluation of a Precast Prestressed Concrete Bridge through Non-Destructive Evaluation (NDE) and Load Testing" by Dr Nur Yazdani, Professor, Department of Civil Engineering, University of Texas at Arlington, U.S.A and "Performance-based Seismic Analysis & Design of Structures" by Lt Col Khondaker Sakil Ahmed, PhD, Associate Professor, Department of Civil Engineering, MIST	CE
4.	A Webinar comprising three lectures titled "Transit Reliability Assessment along a Congested Urban Corridor: A Traffic Microsimulation Modeling Approach" by Dr. Mahmudur Fatmi, Assistant Professor, School of Engineering, Civil Engineering, The University of British Columbia, Okanagan campus, Canada, "A Framework for Involving the Young Generation in Transportation Planning Using Social Media and Crowd Sourcing" by Dr. Moinul Hossain, Professor, Department of Civil and Environmental Engineering (CEE), Islamic University of Technology (IUT)-OIC, Bangladesh, and "Impact of Climate Change on Pavement Performance in Bangladesh" by Brig Gen Shah Md Muniruzzaman (Retd), PhD, Professor, Department of Civil Engineering, MIST	CE
5.	Online Webinar on "Project Management For Industrial Revolution 4.0"	ME
6.	Webinar on "Exploring Aeronautics" organized by MIST Aeronautics & Astronautics Club (MAAC), 2020	AE
7.	Webinar On "Space Studies and Research in Bangladesh", 2020	AE
8.	Webinar on "Tales of A Luminary" organized by MIST Aeronautics & Astronautics Club (MAAC), 2020	AE
9.	Webinar 2020 on World Maritime Day: Sustainable Shipping for a Sustainable Planet	NAME
10.	Webinar on "Biosafety for Clinical and Public Health"	BME
11.	Online Webinar on Water Pollution and Public Health	EWCE
12.	Webinar on Nuclear Fuel Cycle and Waste Management	NSE
13.	Webinar on Nuclear Power Plant Operation and Maintenance	NSE
14.	An online seminar titled "Webinar on Lean Six Sigma"	IPE
15.	A four-day webinar titled "Data Analysis with R"	IPE

WORKSHOPS

Ser	Workshop	Organizing Department
1.	Workshop on Seismic Performance Assessment and Design of Structure	CE
2.	Workshop on “Performance Based Seismic Design of Structures”	CE
3.	Workshop on “Transport Planning & Policy”	CE
4.	Workshop on Outcome Based Education (OBE) System	CE
5.	Workshop on “Transport Planning Design and Modelling”	CE
6.	Workshop on ABET accreditation	CE
7.	Workshop on “BDAPPS”	CSE
8.	Workshop on Basic Arduino	CSE
9.	Workshop on Cloud Computing	CSE
10.	Workshop on “1st Robi Datathon Competition	CSE
11.	Workshop on Technique Electrical Power Quality Understanding, Standard, Events, Analysis and Mitigation Techniques	EECE
12.	Workshop on Line Following Robot (LFR)	EECE
13.	Online Workshop on “Ionospheric Prediction and Forecasting”	EECE
14.	Workshop on Automobile” arranged by MOTOMIST Automotive Club.	ME
15.	Workshop on “Outcome Based Education (OBE)”	ME
16.	Workshop on "Computational Fluid Dynamics"	ME
17.	Workshop on “Hydraulic System Design and Control”	ME
18.	Online workshop on “Hydraulic Systems”	ME
19.	Workshop on Remote Controlled Aircraft Design, Fabrication and Operation ,2015	AE
20.	Workshop on Techniques of Model Making, 2016	Arch
21.	Workshop on Techniques of Model Making, 2018	Arch
22.	Workshop on Energy and Environmental Behavior of Buildings, 2019	Arch
23.	Workshop on Rhino Modeling Essentials and introduction to Grasshopper, 2019	Arch
24.	Workshop on “Biomedical Imaging”	BME
25.	Workshop on PCTran Nuclear Power Plant Simulator	NSE
26.	Workshop on COMSOL Multiphysics Software	NSE
27.	Workshop on “Nuclear Reactor Core and Fuel Analysis”	NSE
28.	An online workshop titled **“IPE Career Talk 1.0 RMG Sector”**	IPE

SHORT COURSES

Ser	Short Courses	Organizing Department
1.	Short Course on Advance Bridge Design 2017	CE
2.	Short Course on Retrofitting of Structures	CE
3.	Training Program on Occupational Safety, Health and Environment Management in EPZS of Bangladesh, BEPZA-MIST	CE
4.	Short Course on Design of Tall Building	CE
5.	Short Course on Construction Management	CE
6.	Short Course on ANSYS (CIVIL)	CE
7.	Certificate Course on Professional GIS	CE
8.	Certificate Course on Professional Building and Bridge Design using ETABS and SAP 2000	CE
9.	Professional Training Program on Environmental Management in Export Processing Zones of Bangladesh	CE
10.	Professional Training Course on Promotion of Industrial, Social and Environmental Standards in EPZs of Bangladesh	CE
11.	Post Graduate Diploma on Project Planning, Development and Management	CE
12.	Cert Awarding Ceremony of Mobile Apps Development Course-2015 and Inauguration of MIST Data Centre	CSE
13.	Certificate awarding ceremony of "basic ICT training for BEPZA officials"	CSE
14.	Cert Course on Cyber Sy by NIIT, INDIA –2017	CSE
15.	Short Course on C Programming Language	CSE
16.	Short Course on Cisco Certified Network Associate (CCNA) -2017	CSE
17.	Capsule Trg on Unicode	CSE
18.	Short Course on 'CompTia A+' For CSE - 18	CSE
19.	Short Course on A-Z of MS Excel -2018	CSE
20.	Short Course on Unicode for Clerk	CSE
21.	Short Course on 'CompTia A+' for CSE - 19	CSE
22.	Short Course on 'Mobile Application Development (Android OS)' for CSE -18	CSE
23.	Cert Course on Cyber Security-2019	CSE
24.	Resume on Inaugural Ceremony of Postgraduate Research Lab and Cert Awarding Ceremony of Mob Apps Dev Short Course-2016	CSE
25.	Short Course on "AutoCAD for Electrical Service Design"	EECE
26.	"AutoCAD For Electrical Service Design"	EECE
27.	Electrical Service Design"	EECE
28.	''Comptia A+' - 2018"	EECE
29.	Short Course on "Programmable Logic Controller"	ME
30.	Short Training on Assessment Capability Development of Commercial HVAC Layout.	ME
31.	Short course on "Basic Solidworks"	ME
32.	Short Course on "ANSYS"	ME
33.	Short course on "Air Conditioning Duct design (HVAC)"	ME
34.	Short course on "Hydraulic System Design"	ME
35.	Short Course on "Modern Features of Automotive Vehicle and Vehicle Inspection Procedure"	ME
36.	Training on "Automotive Inspection"	ME
37.	Short Courses conducted on Computational Fluid Dynamics(CFD)-2018	AE
38.	Certification Course on Oracle and Comtia A+, 2018	AE
39.	Training on Outcome Based Education System- 2018 By Resource Person of BAETE (Prof Dr. Anisul Haque)	AE
40.	Regular In house Training on Outcome Based Education since 2019	AE
41.	Short Course on Ship Design Software (MAXSURF & Rhino) organized in 2016	NAME
42.	Short Course on Ship Design Software (MAXSURF & Rhino) organized in 2017	NAME
43.	Short Course on Ship Design Software (MAXSURF & Rhino) organized in 2018	NAME
44.	Short Course on Ship Design Software (MAXSURF & Rhino) organized in 2019	NAME
45.	Short Course on Ship Design Software (MAXSURF & Rhino) organized in 2020	NAME
46.	Short Course on: 'Rapid Prototyping: A Robust platform for Advanced Biomanufacturing.'	BME
47.	Short Course on "Introduction to Programming with MATLAB"	BME
48.	Short Course on "SOLIDWORKS for Biomedical Applications"	BME
49.	Certificate Course on Tube well Design	EWCE
50.	Short Course on "Plumbing Design: Theory and Practice"	EWCE
51.	Short Course on "LPG Plant Construction and Operation"	PME
52.	Short Course on "Petroleum Reservoir Modeling by Eclips and Petrel"	PME
53.	A three-day online-based competition titled "Business Case Competition Mega Mind 1.0"	IPE

LABORATORY FACILITIES

Faculty of Civil Engineering

CE Department

- Concrete Laboratory
- Structural Mechanics Laboratory
- Geotechnical Laboratory
- Transportation Laboratory
- Survey and Mapping Laboratory
- Geographic Information System (GIS) Laboratory

EWCE Department

- Environmental Engineering Laboratory
- Water Resource Engineering Laboratory

PME Department

- Petroleum Engineering Lab
  - ✓ Core Analysis Unit
  - ✓ Drilling Fluid Preparing and Testing Unit
  - ✓ Reservoir Fluid Analysis Unit
  - ✓ Reservoir Geology Unit
- Natural Gas Lab
- PME Simulation Lab
- Mining Engineering Lab
  - ✓ Rock Mechanics Unit
  - ✓ Mine Survey & Photogrammetry Unit
  - ✓ Mine Model Survey
  - ✓ Mine Instrumentation, Equipment and Machinery
  - ✓ Coal Testing Unit

Arch Department

- Laboratory under processing:
  - ✓ Computer Laboratory
  - ✓ Model Making Laboratory
- Future Laboratory:
  - ✓ Urban and Landscape Design Laboratory
  - ✓ Architectural Design Laboratory
  - ✓ Photography and Image Processing Laboratory
  - ✓ Heritage and Conservation Laboratory
  - ✓ Environmental Design Laboratory
  - ✓ Building Technology and Performance Design Laboratory

Faculty of Electrical and Computer Engineering:

CSE Department

- Digital Laboratory
- Multimedia and Graphics Laboratory
- Network Laboratory
- Software Engineering Laboratory
- Artificial Laboratory
- Micro Processor & Micro Controller Laboratory
- Postgraduate Research Laboratory
- Computer Programming and Networking Laboratory
- Mobile App and Game Testing Laboratory
- Information Security and digital Forensic Laboratory

EECE Department

- Electronics and Digital Electronics Laboratory
- Power Electronics Laboratory
- Analog and Digital Communication Laboratory
- Numerical Technique Laboratory
- Digital Signal Processing Laboratory
- Electrical and Electronic Circuit Simulation Laboratory
- Microprocessor and Interfacing Laboratory
- Electrical Circuit Laboratory
- Electrical Services and Design Laboratory
- Electrical Machine Laboratory
- Power System Laboratory
- Switchgear & protection Laboratory
- Control System Laboratory
- High Voltage Laboratory
- Measurement & Instrumentation System Laboratory
- Mobile Cellular Communication System Laboratory
- Optical Communication Laboratory
- Electronic Warfare Laboratory
- Sonar and Under Water Engineering
- Guided Weapon System Laboratory

Faculty of Mechanical Engineering:

ME Department

- Measurement & Quality Control Laboratory
- Thermodynamics Laboratory
- Applied Thermodynamics Laboratory
- Refrigeration & Air Conditioning Laboratory
- Heat Transfer Laboratory
- Automobile Laboratory
- Machine Tools Laboratory
- Materials and Metallurgy Laboratory
- Drawing Shop
- CAD Laboratory
- Heat Engine Laboratory
- Applied Mechanics Laboratory
- Fluid Mechanics Laboratory

AE Department

- Applied Aerodynamics Laboratory
- Jet Propulsion Laboratory
- Radar Engineering Laboratory
- Avionics and Ground Electronics Laboratory
- Aero-structure Laboratory

NAME Department

- Computer Aided Ship Design Lab
- Ships Structure and Fabrication Lab
- Marine Machinery Lab
- Ship Instrument Lab
- Damage Control Fire Fighting and Life Saving Lab
- Ship Propulsion Lab
- Ship Resistance Lab
- Machine Tools Lab
- Model Fabrications Lab
- Towing tank stability Lab
- Marine Transportation Lab
- Hydrodynamics Lab
- Auxiliary Machinery Lab

IPE Department

- Advanced Machine Tools and Production Process Lab
- Ergonomics and Safety Engineering Lab
- Computer Integrated Manufacturing and Automation Lab
- Material Handling
- Simulation & Process Engineering Design Lab
- Instrumentation, Measurement and Quality Control Lab
- Material Characterization Lab

Faculty of Science and Engineering:

NSE Department

- Radiation Detection and Medical Application Lab
- Nuclear Chemistry and Safeguard Lab
- Modeling and Simulation Lab
- Thermo Fluid Dynamics Lab
- Nuclear Reactor and Control Lab
- Nuclear Technique and Material Lab
- Nuclear Safety and Security Lab
- Nuclear Fuel and Waste Safety Lab

BME Department

- Biomedical Instruments Laboratory
- Biomechanics and Rehabilitation Engineering Laboratory
- Biomedical Design Laboratory
- Bio-fluid laboratory
- Biochemistry Laboratory
- Biomaterials Laboratory
- Cell and Tissue Engineering Laboratory
- Biomedical Signal and Image Processing Laboratory

Science and Humanities (Sc & Hum) Department

- Chemistry Laboratory
- Physics Laboratory

FACULTY MEMBERS

A group of qualified faculties from military as well as from civil society (internationally reputed) are relentlessly engaged in imparting knowledge to the students. In addition, faculties from reputed universities take contribute as resource person in various disciplines. Guest speakers / faculties from various organisations / institutions / universities are also invited to participate in teaching programs, lecturers, seminars etc. At present, the state of Instructors / faculties of MIST are as follows:

Appt	Faculty of CE				Faculty of ECE		Faculty of ME				Faculty of Sc & Engg			Total
	CE Dept	ARCH Dept	EWCE Dept	PME Dept	CSE Dept	EECE Dept	ME Dept	AE Dept	NAME Dept	IPE Dept	BME Dept	NSE Dept	Sc & Hum Dept	
Brig Gen	01	-	-	-	01	01	01	01	01	-	-	-	-	**06**
Professor	*02 **02 #02	#02	**01 #01	**01 #01	*01	**02 #20	**02	**01 #03	**01 #03	**01	**01 #01	**02 #03	***01	**54**
Col	-	01	01	01	02	04	02	03	01	01	01	01	01	**19**
Associate Professor	**01	**02 ***02 #01	#01	**01	-	#03	-	-	-	-	#01	#04	-	**16**
Lt Col	06	-	-	-	01	03	01	01	04	01	-	-	04	**21**
Assistant Professor	*04 **01 ***01	**03 ***02 #01	***03 #01	**01	*01 **01 ***01	*02 ***01	**05	*03	*03	**01	***03 #01	**02	*02	**43**
Maj	03	-	03	-	03	06	02	01	01	01	03	-	08	**31**
Captain	-	02	01	01	01	-	01	01	-	01	01	01	-	**10**
Lecturer	*02 ***12	**04 ***01	***05	***06	*01 ***16	*02 ***08	**01 ***15	*02 ***07	*01 ***04	**07	***05	**01 ***06	***06	**112**
Total	**37**	**21**	**17**	**12**	**29**	**52**	**30**	**23**	**19**	**13**	**17**	**20**	**22**	**312**

LEGEND:

Civil Faculty Members	
Permanent	*
Contractual	**
Adjunct	***
Other Universities	#

AWARDED PAPERS

Date	Event	Description
2020	Best Paper Award Topic: Design of a 2x3 Microstrip Patch Phased Array Antenna for GNSS Augmentation	M.Sc. student of EECE Department A A M Shah Sadman received the 1st Prize of Dr. Fatema Rashid Best Paper Award in 23rd International Conference on Computer and Information Technology (ICCIT), held on 19-21 December 2020. The paper titled **Design of a 2x3 Microstrip Patch Phased Array Antenna for GNSS Augmentation** is a part of his M.Sc. thesis under the supervision of Prof Dr. Md. Hossam-E-Haider. In this paper, a 2x3 phased array antenna is designed and analyzed using rectangular microstrip patch antenna on FR-4 dielectric substrate with an aim of accomplishing beam scanning. As in various fields of communication such as satellite and radar, beam steering not only provides superior performance but also heightens the overall integrity of the communication system.
2019	Best Paper Award Topic: An IoT based Automated Door Accessing System for Visually Impaired People Place: Bangalore, India	An article titled **An IoT based Automated Door Accessing System for Visually Impaired People** authored by Lt Col Muhammad Nazrul Islam, Lec Umma Habiba and six students from CSE-16 of CSE department was presented at the 5th IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering 2019 (IEEE WIECON-ECE 2019) in Bangalore, India. This paper received the BEST PAPER award.
2019	Best Paper Award – ICASET 2019 Topic: Relationship between Location-Wise Air Quality and Public Perception in Dhaka City Place: Kadapa, Andhra Pradesh, India.	Maj Md. Noman Munsi of Civil Engineering Department has been awarded with the best paper presentation award in the International Conference on Advances in Science, Engineering & Technology held on 19th to 20th December 2019 in KSRM College of Engineering, Kadapa, Andhra Pradesh, India. He presented a paper titled **Relationship between Location-Wise Air Quality and Public Perception in Dhaka City** under the supervision of Prof Dr. Tauhid-ur-Rahman of Civil Engineering Department, MIST.
2019	Best Paper Award –SEES 2019 Topic: Application of Low Cost Air Quality Monitoring System Place: Kolkata, India	Maj Md Noman Munsi, Maj S M Nihab Ahsan & Md. Shafinur Rahman of Civil Engineering Department has been awarded with the best paper presentation award in the International Conference in SEES-2019, Kolkata, India. They presented a paper titled **Application of Low Cost Air Quality Monitoring System** under the supervision of Prof Dr Tauhid-ur-Rahman of Civil Engineering Department, MIST.

AWARDED PAPERS

Date	Event	Description
2019	Best Paper Award - SEE2019 Topic: Performance Evaluation of Concrete with Recycled waste Polypropylene. Place: Swissotel, Bangkok, Thailand	Lt Col Md. Jahidul Islam has presented a conference paper titled **Performance Evaluation of Concrete with Recycled waste Polypropylene** at 5th international conference of science, Engineering and Environment (SEE2019) Swissotel, Bangkok, Thailand which was held from 11th to13th November, 2019 and awarded with best paper award.
2019	Best paper award Topic: Non Linear Finite Element Investigation of the Lateral Load Capacity of Stiffened SPSW for various Aspect Ratios. Place: BUET, Dhaka	Research Paper titled **Non Linear Finite Element Investigation of the Lateral Load Capacity of Stiffened SPSW for various Aspect Ratios** of Lecturer Mumtahina Akter, CE department of MIST has been awarded as the Best Paper in the International Conference on Disaster Risk Management (ICDRM 2019) in BUET in January 2019.
2019	Delivering Lectures At Charles University, Prague As A Visiting Professor Topic: International Master's Program TEMA+ European Territories: Heritage and Development Place: Charles University, Padua, Italy.	Mohammad Sazzad Hossain, Associate professor, Department of Architecture, MIST was invited by the Charles University, Prague to give lectures at Postgraduate level. From 8 to 26 April, Prof. Hossain was associated with the **International Master's Program TEMA+ European Territories: Heritage and Development** at Charles University and his key responsibilities were to give lectures, conduct seminars and carry out research activities focusing on History of Architecture, Built Heritage and Conservation. Charles University is one of the leading Universities in Europe. In 2012 Mr. Hossain also taught at the University of Padua, which is another reputed University in Italy. It may be mentioned that Assoc Prof. Hossain is already recognized at National and International level for his expertise in the field of Heritage and Conservation. He is the current President of South Asian Chapter, Erasmus Mundus Association; General Secretary of Bangladesh National Committee, International Council on Monuments and Sites (ICOMOS) and Secretary, Heritage and Culture, Institute of Architects Bangladesh (IAB).

AWARDED PAPERS

Date	Event	Description
2017	Prestigious Award Topic: 27th JK AYA (Architect of the Year Awards) Place: Mohorpara, Shibpur, Narshingdi	Lecturer Manifa Rehnuma of Department of Architecture, MIST, has won the prestigious award of **27th JK AYA (Architect of the Year Awards)** as a team member of 'And ORDEN' architects for designing the mosque at Mohorpara, Shibpur, Narshingdi. AYA is the much anticipated event of the year for all the leading architects. The jury for AYA is chaired by Yadupati Singhania - Managing Director, J.K. Cement Ltd. and comprises eminent architects from various regions of India and two members representing the participating neighboring countries. Having started in 1990, AYA has lived up to its legacy of awarding excellence every year. The award ceremony among 200 entries. The project has been awarded to **Foreign Countries' Young Architect Award.** The team was led by Ar. A.K.M Tanvir Hassan and Ar. Nahid Akram.
2016	Best Paper Award Published Topic: IEEE EMBS Bangladesh Chapter Place: UIU, Dhaka	A research paper from three faculty members (Wali Mohammad Abdullah, Najia Manjur, and Muhammad Nazrul Islam) of this department has awarded as IEEE EMBS Bangladesh Chapter Best Paper Award (2nd Runner-up) in International Conference on **Medical Engineering, Health Informatics and Technology (MediTec 2016)**, which was held at UIU, Dhaka on 17 & 18 December 2016.
2016	Best Paper Award- Topic: Experimental and Analytical Assessment of RC Column Jacketing Place: BIAM Foundation , Dhaka	Major Riaz Mahmud, Engrs of Civil Engineering department received the best paper award in 12th Global Engineering, Science and Technology Conference for his research work on Structural Retrofitting titled **Experimental and Analytical Assessment of RC Column Jacketing**. This research was supervised by Major Kh Sakil Ahmed, PhD, PEngg who is an associate professor of Civil Engineering Department.
2012	Best Paper Award Topic: Global Engineering, Science and Technology Conference 2012 Place: Dhaka	Dr Md Alamgir Hossain, Assistant Professor, Mechanical Engineering Department, MIST has been awarded with the Best Paper Award in **Global Engineering, Science and Technology Conference 2012** held in Dhaka on 29 Dec 2012.

RECOGNITION OF ACADEMIC PERFORMANCE

Osmany Memorial Gold Medal

Awarded to the highest CGPA obtained graduating regular student among all the MIST medal winners

FRONT VIEW

REAR VIEW

MIST Medal

Awarded to the first position holder among graduating regular students of each department, who possesses a good discipline

Dean's List

- All regular students of all departments except Architecture department, earning minimum GPA 3.75 at the end of each academic level for level 1 to 3

- For graduating students of all departments except Architecture department earning minimum CGPA 3.75 considering results of entire program (i.e. level 1 to 4)

- For Architecture department students with earning minimum GPA 3.50 at the end of each academic level for level 1 to 4

- For graduating students of Architecture department earning minimum CGPA 3.50 considering results of entire program (i.e. level 1 to 5)

MIST Scholarships

- MIST Scholarship is given to the regular students of each departments those are securing position from 1st to 5th as recognition of their academic performance in each term final examination.

ELIGIBILITY FOR ADMISSION TEST

Bangladeshi Students

Minimum qualifications to take part in the admission test are as follows:

a. SSC Examination (or Equivalent). The applicant must have passed the examination in Science Group obtaining a minimum GPA of 4.00 (without fourth subject) on the scale of 5.0. Only the applicants who passed SSC or Equivalent Examination in Corresponding current and previous one year can apply.

b. HSC Examination (or Equivalent). The applicants passed in current and previous one year must obtain minimum total grade point 17 in four subjects (Mathematics, Physics, Chemistry and English).

c. GCE ('O' and 'A' Levels or Equivalent)

(1) The applicant who passed in current and previous one year must have qualified with minimum 'B' grade in five subjects including Mathematics, Physics, Chemistry, and English in GCE 'O' Level.

(2) The applicant who passed in current and previous one year must have minimum two 'B' grades and one 'C' grade in Mathematics, Physics, and Chemistry in GCE 'A' Level.

d. Applicants interested in Biomedical Engineering must have Biology at **HSC** or equivalent level with a minimum grade point of **'A-' / GCE 'A'** or equivalent level with a minimum grade point of '**C**'.

Foreign Students

Maximum 3% of overall vacancies available will be kept reserved for the foreign students and will be offered to foreign countries through Armed Forces Division (AFD) of the Government of the Peoples Republic of Bangladesh. Applicants must fulfill the following requirements:

- Educational qualifications as applicable for Bangladeshi students or equivalent.
- Must have security clearance from respective Embassy/ High Commission in Bangladesh.
- Sex: Male and Female.

Note: In the event of non-availability of foreign students, the vacancies will be filled up by Bangladeshi civil students as per merit.

NUMBER OF SEATS

The highest number of seats for 4 (four) years' Bachelor Degree in Engineering Programs (Unit-A) and 5 (five) years' Bachelor Degree of Architecture Program (Unit-B) is given below with Admission Test Units:

Ser	Unit	Department	Seats
1	A	Civil Engineering (CE)	60
2		Computer Science and Engineering (CSE)	60
3		Electrical, Electronic and Communication Engineering (EECE)	60
4		Mechanical Engineering (ME)	60
5		Aeronautical Engineering (AE)	50
6		Naval Architecture and Marine Engineering (NAME)	40
7		Biomedical Engineering (BME)	40
8		Nuclear Science and Engineering (NSE)	40
9		Environmental, Water Resources and Coastal Engineering	60
10		Industrial and Production Engineering (IPE)	50
11		Petroleum and Mining Engineering (PME)	25
12	B	Architecture (ARCH)	25
Total			**570**

SUBMISSION OF APPLICATION - 2021

Instructions for Submission of e-Application

Application for the **Admission Test-2021** in MIST will be accepted only through online system from **04 February to 18 February 2021.** No manual application will be accepted unless there is some system difficulty in application process. An applicant needs to deposit **Tk. 800 (Eight Hundred) for unit A and Tk 1000 (One Thousand) for B and A+B** units only as application fee through SMS from Teletalk prepaid mobile phone. No fee will be accepted by MIST other than through SMS system. Cash will not be accepted. To complete the online application, an applicant must upload a copy of recent passport size colored photograph (exactly 300X300 pixel and maximum 100 KB size) and signature (exactly 300X80 pixel and maximum 60 KB size). Both photograph and signature should be in jpg format. Applicants must read the details given in the 'Instructions and Information for MIST Admission Test' very carefully. They may also take the printout of the instructions. Steps to be followed to submit the application for the MIST **Admission Test-2021.** For female candidates the words he and his will mean she and her in the application form.

Step 1: Filing up Online Application Form

Go to MIST website **www.mist.ac.bd** and click **'Online Application'** box. From **'Online Application'** box, select 'Online Application Form for General Education (HSC or Equivalent) Examination Applicants' or 'Online Application Form for GCE (A Level or Equivalent) Applicants'. Then Click **'Next'**.

1. For General Education (HSC or Equivalent) Examination Applicants

a. Applicant's Academic Information In the 'Application' box, put your roll number, registration number, name of board and year of passing for both SSC and HSC examinations. Then select **'Next'.**

b. Applicant's Personal Information In the next screen, applicant's name, date of birth, gender, father's name, mother's name and nationality will be displayed. Applicant's educational qualifications of SSC or Equivalent and HSC or Equivalent will also be displayed. In this screen, the applicant needs to fill up certain information. These are:

i. **Choice of Units** An applicant needs to select ONE unit from the pull down menu among Unit A (Engineering Programmes), Unit B (Architecture Programme) and Unit A+B (Engineering and Architecture Programmes).

ii. **Category of Candidature** There are four options: General, Children of Freedom Fighters, Tribal Citizens and Children of Military Personnel. An applicant needs to select one from pull down menu according to his category of candidature.

iii. **Address** An applicant needs to type his address. He is to select District and Upazilla from the 'Pull Down' menu.

iv. **Contact Cellphone Number** The applicant must give a valid contact number (cell phone) of any operator (GP, Banglalink, Airtel, TeleTalk etc.) for making subsequent communication. This mobile number is very important for confirmation of receipt of application, list of eligible candidates for admission test, admission test results and final admission to MIST.

v. **Upload Photo and Signature** An applicant is required to prepare two jpg format files each containing Passport size photo (with exactly 300 x 300 pixel and maximum 100 KB size) and his signature (with exactly 300 x 80 pixel and maximum 60 KB size). Candidate needs to select 'Browse' button and upload the photo and signature from the drive / location. Applicant can take help to resize from the web link www.picresize.com.

vi. **Validation Code** There will be a validation code on the left side of the blank space. Type this code on the blank space.

vii. **Declaration** Read the statement of confirmation declaring the correctness of the given information. Applicant needs to agree to the statement and check the button. Then click on the **'Submit'** button.

2. For GCE (A Level/ Equivalent) Applicants

a. **Applicant's Required Information** The applicant needs to type his name, father's name, mother's name etc. He needs to select date of birth from the 'Pull Down' menu. He also needs to select the Gender 'Radio' button. Then click **'Next'.**

b. **Choice of Units** An applicant needs to select **one unit** from the pull down menu among Unit A (Engineering Programmes), Unit B (Architecture Programme) and Unit A+B (Engineering and Architecture Programmes).

c. **Category of Candidature** There are four options: General, Children of Freedom Fighters, Tribal Citizens and Children of Military Personnel. An applicant needs to check the appropriate button according to his category of candidature.

d. **Address** The applicant needs to type his address. He is to select District and Upazilla from the 'Pull Down' menu.

e. **Contact Number** The applicant must give a valid contact number (cell phone) of any operator (GP, Banglalink, Airtel, TeleTalk etc.) for making subsequent communication. This mobile number is very important for confirmation of receipt of application, list of eligible candidates for admission test, admission test results and final admission to MIST.

f. **Educational Qualification** Type the name of the Institution and select year of passing, grade of subjects from the 'Pull Down' menu for both 'O' level and 'A' level examinations.

g. **Upload Photo and Signature** An applicant is required to prepare two jpg format files each containing Passport size photo (with exactly 300 x 300 pixel and maximum 100 KB size) and his signature (with exactly 300 x 80 pixel and maximum 60 KB size). Candidate needs to select 'Browse' button and upload the photo and signature from the drive / location. Applicant can take help to resize from the web link www.picresize.com.

h. **Validation Code** There will be a validation code on the left side of the blank space. Type this code on the blank space.

j. **Declaration** Read the statement of confirmation declaring the correctness of the given information. Applicant needs to agree to the statement and check on the 'Radio' button. Then click on the **'Submit'** button.

3. Then the applicant will see a preview page with his photo and signature along with other information. The applicant will get a user ID. This user ID will be required to deposit the application fee as instructed on earlier section. The applicant will get a confirmation message that the applicant completed step 1 in submitting the application. It is to be noted that the application process will not be completed until the application fee is deposited through SMS from TeleTalk prepaid mobile phone within **24 (Twenty Fours)** hours from time of application as mentioned on your receipt (Applicant's Copy).

Step 2: Depositing Application Fee through SMS

4. Application Fees

Each applicants needs to deposit Tk. 800 (Eight Hundred) for UNIT A (ONLY ENGINEERING PROGRAMS) and 1000 (One Thousand) for UNIT B (ARCHITECTURE) and A+B both units only as application fee through SMS from TeleTalk prepaid mobile phone within 24 (Twenty Fours) hours after submitting application. Following steps are to be followed to deposit application fee:

a. Go to SMS option in TeleTalk prepaid mobile phone. Then type MIST <space> user ID. Then send to 16222. Example: Type MIST 666666 (six digit pin) then send to 16222. The applicant needs to type his user ID in place of 666666.

b. If the SMS is sent correctly, the applicant will receive a six digit PIN along with his Name and amount of application fee. The applicant will be asked to confirm the process of depositing the application fee.

c. To confirm the process of depositing the Application Fee, type MIST <space> YES <space>PIN and send to 16222. Example: Type MIST YES 777777 then send to 16222. The applicant needs to type his PIN in place of 777777.

5. Confirmation The applicant will then receive a confirmation SMS from MIST in his given contact mobile number that the application is finally submitted to MIST. He will also receive a User Name and a Password. This will be required for eligible applicants to download admit card.

6. Physical Submission of Certificates

Applicants under the categories of Children of Freedom Fighters (FF), Tribal Citizen (TC) and Children of Military Personnel (MW) must send a scan copy of required certificate / documents submit to **MIST admission Section physically within 1430 hours by 22 February 2021**. Required certificate/ documents are:

a. For freedom Fighter Related Bangladesh Gazettes/ temporary certificate issued by Ministry of Liberation War Affairs/ Lal Muktibarta/ Indian List/ Certificate from Bangladesh Mukti Joddha Sangsad and relationship certificate with freedom fighter.

b. For Military Ward (Children of Military Personnel)

(1) Serving: Certificate from CO/ equivalent/ his representatives.

(2) Retired: * Officers: Certificate/ Certificate from CORO/ Naval Secretariat/ Air Secretariat.
* JCO/ OR/ NC (E) of Army/ Navy/ Air Forces: Certificate/ Service Record Book from respective Arms/Service's Record Offices/ Drafting office.

c. For Tribal Citizen Certificate issued by local Upazilla Chairman and counter signed by District Commissioner.

d. The submission of application of applicants i.e. Children / grand- children of Freedom Fighters, Tribal Citizen and Children of Military Personnel will not be completed without submitting the required certificates / documents by **22 February 2021..**

7. Contact (in Case of any Difficulty) In case of any difficulty for filling up the online application, the applicants are requested to contact the 'Admission Help Desk' (Room 201, 2nd Floor, Tower Building-1). Contact: mist website: www.mist.ac.bd and Phone: +88-01769-024054, +88-01769-024056, +88-01769-024090, +88-01769-024094 from 0900-1700 hours, email: admission@mist.ac.bd

ADMISSION TEST AND SELECTION PROCEDURE

Selection of Candidates

1. Candidates will be short-listed on the basis of total marks / GPA obtained in Mathematics, Physics and Chemistry in HSC/Equivalent examination. In case of tie, order of priority for finding the eligible candidates will be: marks / GPA in Mathematics, Physics and then Chemistry. **Two separate lists** (one for current year and one for last year's candidate) will be generated for selection purpose to appear written test only. Short-listed candidates will be allowed to take part in the written admission test of 02 (two) hours (For Unit A) and 2+2= 04 hours (for Unit B and Unit A+B). All eligible candidates of reserved seats (Children of Military Personnel, Children/ grand-children of Freedom Fighters, Tribal Citizens) and all eligible candidates with GCE 'A' Level/ Equivalent of current and previous year (last year only) will be allowed to seat for Admission Test. The list of eligible candidates to appear admission test will be displayed in the notice board and website of MIST **www.mist.ac.bd** and will be intimated to individual through SMS to the contact mobile number given by the applicant.

Examination System

2. There will be no multiple choice type questions (MCQ), questions will be in both English and Bangla and applicants can answer in English or Bangla. The marks distributions for both units are as follows:

Ser	Module	Subject	Marks	Remarks
1	Unit A Engineering	Mathematics	40%	Total Marks: 200 Exam Duration: 3 hours
2		Physics	30%	
3		Chemistry	20%	
4		English	10%	
5	Unit B Architecture	Drawing and Architecture related topics	100	Total Marks: 100+100= 200 Exam Duration: (2+2) hrs

3. For Unit A only, candidates will sit for the written test of 3 hours. For Unit B (Architecture) only / both A and B (Engineering and Architecture) candidates will sit for the written test of 4 hours (2 hours + 2 hours) with a break in between.

4. Important Dates

Application Submission	From 03 February to 18 February 2021
List of Eligible Candidates	28 February 2021
Written Admission Test. For unit A	1000 – 1200 hours on 05 March 2021 (Friday)
Written Admission Test. For Unit B and (A+B)	1000 – 1200 hours and 1430 - 1630 hours on 05 March 2021 (Friday)

FINAL SELECTION

1. Minimum qualifying marks in the written test is 40% for both Unit A and Unit B. All applicants must obtain 40% of allocated marks separately for question module 1 and 2. In exceptional circumstances for fulfillment of specified number of seats, President Admission Committee will apprise the Commandant. Commandant, MIST may consider relaxation of this condition. Merit list of the candidates for final selection for admission to MIST will be prepared on the basis of Written Test only**.** Biology at HSC/ Equivalent level is must for applicants of Biomedical Engineering with a grade of minimum 'A-' and minimum grade point 'C' for GCE/ Equivalent level.

2. In case of tie, merit position will be determined on the basis of marks obtained in admission test in Mathematics, Physics, Chemistry and English respectively. Further dispute may be solved giving priority of result to HSC over SSC examination.

3. Five percent (5%) marks will be deducted from the written test for the candidates passed in previous one year. Thereafter, Combined Merit List (candidates passed HSC/Equivalent in current and previous one year) will be prepared for the admission and department allocation.

ADMISSION PROCEDURE

Medical Check-up

Provisionally selected civil candidates are to undergo medical check-up at MIST medical center. They will have to produce test reports of urine for R/E, blood for HBs Ag and blood grouping before the MIST medical authority. The medical authority will decide on the physical fitness of candidates for admission in MIST.

Admission

Candidates finally selected for admission will have to adhere to the following rules and procedures:

a. Candidates have to complete admission formalities within a fixed period of time as decided by admission committee.

b. Any candidate failing to complete admission formalities within the prescribed time, selection will be automatically cancelled.

c. Any student failing to attend the class within two weeks of the commencement of the academic program will warrant cancellation of his / her admission and forfeiture of all fees including security deposit.

d. Waiting lists will be prepared and displayed by the admission committee as per merit and be notified as per requirement.

Following Documents are to be Submitted During Admission

a. Original copies of certificates and mark sheet of SSC or Equivalent examination.

b. Original copies of certificate and mark sheet of HSC or Equivalent examination.

c. Three copies of recent passport size colored photograph of the candidate duly attested by class-I gazetted officer.

d. Character certificate from the head of the last institute attended.

e. Nationality Certificate from proper authority / Birth certificate / National ID Card.

f. For the Children of Freedom Fighters, original copies of Freedom Fighter certificate of parents, issued by the Ministry of Liberation War Affairs, People's Republic of Bangladesh.

g. For Tribal Citizen, original certificate as a tribal citizen issued by local UP Chairman and countersigned by concerned District Commissioner (DC).

h. For Children of Military Personnel original certificate of authenticity, issued by respective Commanding Officers (For serving parents); and by CORO/ Naval Secretary/ Air Secretary/ Record Office/ Drafting Office (For retired parents).

Department Allotment

Departments will be allotted on the basis of combined merit position**.** Individual choice for selection of departments will be given preference as far as possible.

Guardian's Consent

In the admission form selected civil candidates and their parents or guardians have to render consent certificate accepting terms and conditions as required by MIST authority from time to time.

MIST STUDENT WITHDRAWAL POLICY

Introduction

1. Military Institute of Science & Technology (MIST), a pioneer technical institution of Bangladesh Armed Forces conducts undergraduate courses of various engineering disciplines, like, Civil Engineering (CE), Computer Science and Engineering (CSE), Electrical, Electronic and Communication Engineering (EECE), Mechanical Engineering (ME), Aeronautical Engineering (AE), Naval Architectures and Marine Engineering (NAME), Nuclear Science and Engineering (NSE), Environmental, Water Resources, and Coastal Engineering (EWCE), Biomedical Engineering (BME), Architecture (Arch), Petroleum & Mining Engineering (PME) and Industrial & Production Engineering (IPE) . Since its beginning, all academics programs (including the MBA and Executive MBA programs) of MIST had been affiliated with the University of Dhaka (DU). On 05 June, 2008 the Bangladesh University of Professionals (BUP) came into existence as a new public university of the country. Since then all academic programs of MIST were disengaged from DU and have been affiliated with BUP. Again, the Management Division (BBA, MBA and Executive programs) of MIST was disengaged from MIST and remained with BUP in faculty of Business studies (FBS). Now, examinations of all engineering programs of MIST are held under the authority of BUP.

2. From the academic session 2017-18, MIST is introducing a course system for undergraduate studies. The rules and regulations for administering undergraduate curriculum through the Course System have been applicable to students henceforth. This new course system has been introduced with an aim of creating a continuous, even and consistent workload throughout the term for the students. This new curriculum does not demand the same rate of academic progress from all students for obtaining the degree but only lays down the pace expected of a normal student. A student whose background or capacity for assimilation is lower, he/she is permitted to complete the program at a slower pace by studying a fewer number of courses during a given term, subject to a minimum course load.

3. A definite standard of education and general discipline will be followed in every level of the program. The unsuccessful students will therefore be withdrawn from the institute.

Definitions

4. Definition of the terms :

a. Permanent Withdrawal The term `Permanent Withdrawal' will imply a complete/permanent discontinuity from any course/program of the institute.

b. Temporary Withdrawal The term `Temporary Withdrawal' means that the student has been allowed by the Academic Council, MIST to discontinue temporarily from any course/program for a definite period. The student, so withdrawn, may re-enter the course as per terms and conditions set by the authority .

c. Permanent Expulsion The term `Permanent Expulsion' means expulsion permanently from the institution on disciplinary ground. A student, if expelled permanently will never be allowed to re-enter the course or similar program in MIST and be subjected to other terms and conditions as set by the authority while approving the permanent expulsion order.

d. Temporary Expulsion The term `Temporary Expulsion means expulsion from an academic course/program for a certain period on disciplinary ground. A student, if expelled temporarily, may be allowed to re-enter the course/program on expiry of the punishment period and on fulfilment of other terms and conditions (if any) as set by the authority while approving the temporary expulsion order.

5. The undergraduate (B.Sc) Engineering programs for all engineering disciplines are planned for 04 regular levels, comprising of 08 regular semester for Architecture program it is planned for 5 & regular levels, comprising of 10 regular terms. It is expected that all students will earn degree by clearing all the offered courses in the stipulated time. In case of failure the following policies will be adopted:

a. Students failing in any course/subject will have to clear/pass the said course/ subject by appearing it in supplementary/ self study (for graduating student) examination as per examination policy.

b. Students may also retake the failed subject/course in regular term/short term as per Examination policy.

c. Maximum grading for supplementary self study examination etc of failed subjects will be B+ as per examination policy.

d. One student can retake/reappear in a failed subject/course only twice. However, With the Permission of Academic Council of MIST, a student may be allowed for third time as last chance.

e. In case of sickness, which leads to missing of more than 40% classes or miss term final examination (supported by requisite medical documents), students may be allowed to withdraw temporarily from that term and repeat the whole level with the regular level in the next academic session, subject to the approval of Academic Council , MIST. However, he/she has to complete the whole undergraduate program within 06 (six) academic years (for Architecture 07 academic years) from the date of his/her registration.

f. Minimum credit requirement for the award of bachelor's degree in Engineering (Bsc Engg) and Architecture (B. Arch) will be decide by the respective. Department as per existing rules. However the minimum CGPA requirement for obtaining a bachelor degree in engineering and Architecture is 2.20.

g. Whatever may be the cases, students have to complete the whole undergraduate Program within 06 (six) academic years for B.Sc Engineering and 07 (seven) years for Bachelor of Architecture from the date of registration.

h. All other terms and condition of MIST Examination Policy remain valid.

EXPULSION/ WITHDRAWAL ON DISCIPLINARY GROUND

6. Unfair Means. Adopting of unfair means may result in expulsion of a student from the program and so from the institution. The Academic Council of MIST will authorize such expulsion on the basis of recommendation of the Disciplinary Committee, MIST and as per policy approved by the affiliating university (BUP). Following would be considered as unfair means adopted during examinations and other contests:

a. Communicating with fellow students for obtaining help in the examinations.
b. Copying from another student's script/report/paper.
c. Copying from desk or palm of a hand or from other incriminating documents.
d. Possession of any incriminating document whether used or not.

7. Influencing Grades MIST Authority may expel/withdraw any student for approaching directly or indirectly in any form to influence a teacher or MIST authority for grades.

8. Other Indiscipline Behaviour MIST Authority may withdraw/expel any student on disciplinary ground, if any form of indiscipline or unruly behaviour is seen him/her which may disrupt the academic environment/program or is considered detrimental to MIST's image.

9. Immediate Action by the Disciplinary Committee of MIST The Disciplinary Committee, MIST may take immediate disciplinary action against any student of the institution. But later the approval of BUP has to be taken. In case of withdrawal/expulsion, the matter will have to be referred later to the next academic Council, MIST.

WITHDRAWAL ON OWN ACCORD

10. Permanent Withdrawal A Student who has already completed some courses and has not performed satisfaction may apply for a permanent withdrawal.

11. Temporary Withdrawal A student, if he/she applies, may be allowed to withdraw temporarily from the program, subject to approval of Academic Council of MIST, but he/she has to complete the whole program within 06 (six) academic years (for Architecture 07 academic years) from the date of his/her registration.

STUDENTS' DRESS CODE

Civil students are to wear dress with displayed identity card as per "Dress Code" prescribed by MIST authority. Military students will put on uniform as per dress regulation of respective services. Dress code for civil student is as follows:

Male Student		Female Student	
Summer	**Winter**	**Summer**	**Winter**
Light Grey coloured full sleeve shirt (tucked in), Light Black coloured full pant, Black Oxford shoes and Black socks.	Light Grey coloured full sleeve shirt (tucked in), Light Black coloured full pant, Blue jersey pull over (V-necked) (Normal), MIST Blazer (Formal), Black Oxford shoes and Black socks.	Ash coloured three quarter sleeve Kamiz, White coloured Sallowar and Dopatta, Black ladies shoes and socks/ Black sandal shoes.	Ash coloured three quarter sleeve Kamiz, White coloured Sallowar and Dopatta, Navy Blue cardigan (Normal), MIST Blazer (Formal), Black ladies shoes and socks/ Black sandal shoes.

SUMMER

WINTER (Formal)

WINTER (Regular)

RULES AND REGULATIONS FOR UNDERGRADUATE PROGRAM AS PER COURSE SYSTEM

Introduction

1. MIST has introduced course system for undergraduate studies from the academic session 2017-18. Therefore, the rules and regulations mentioned in this paper are applicable to students for administering undergraduate curriculum through the Course System. This has been introduced with an aim of creating a continuous, even and consistent workload throughout the term for the students.

The Course System

2. The salient features of the Course System are as follows:

   a. Number of theory courses will be generally 5 in each term. However, with the recommendation of course coordinator and Head of the Department, Commandant MIST may allow relaxation in this regard. This relaxation is to be reported to Academic Council of MIST.
   b. Students will not face any level repeat for failing.
   c. Students will get scope to improve their grading.
   d. Introduction of more optional courses to enable the students to select courses according to their individual needs and preferences.
   e. Continuous evaluation of students' performance.
   f. Promotion of student-teacher interaction and contact.

3. Beside the professional courses pertaining to each discipline, the undergraduate curriculum gives a strong emphasis on acquiring thorough knowledge in the basic sciences of mathematics, physics and chemistry. Due importance is also given on the study of several subjects in humanities and social sciences.

4. The first two years of bachelor's degree programs generally consist of courses in basic engineering, general science and humanities subjects; while the third and subsequent years focus in specific disciplines.

Number of Terms in a Year

5. There will be two terms i.e. Spring Term (Jan-Jun) and Fall Term (Jul-Dec) in an academic year. In addition to these two regular terms there will be two supplementary exams of each academic year. During supplementary exam, students can take only failed courses to cover up the credit deficiencies.

Duration of Terms

6. The duration of each of Term I and Term II (maximum 22 weeks) may be as under:

Ser	Events	Durations
1.	Classes before Mid Term	7 weeks
2.	Mid Term Vacation	1 week
3.	Classes after Mid Term	7 weeks
4.	Makeup Classes and Preparatory leave	2/3 weeks
5.	Term Final Examination	2/3 weeks
6.	Term End Vacation	1/2 week

Course Pattern and Credit Structure

7. The undergraduate program is covered by a set of theoretical courses along with a set of laboratory (sessional) courses to support them.

Course Designation System

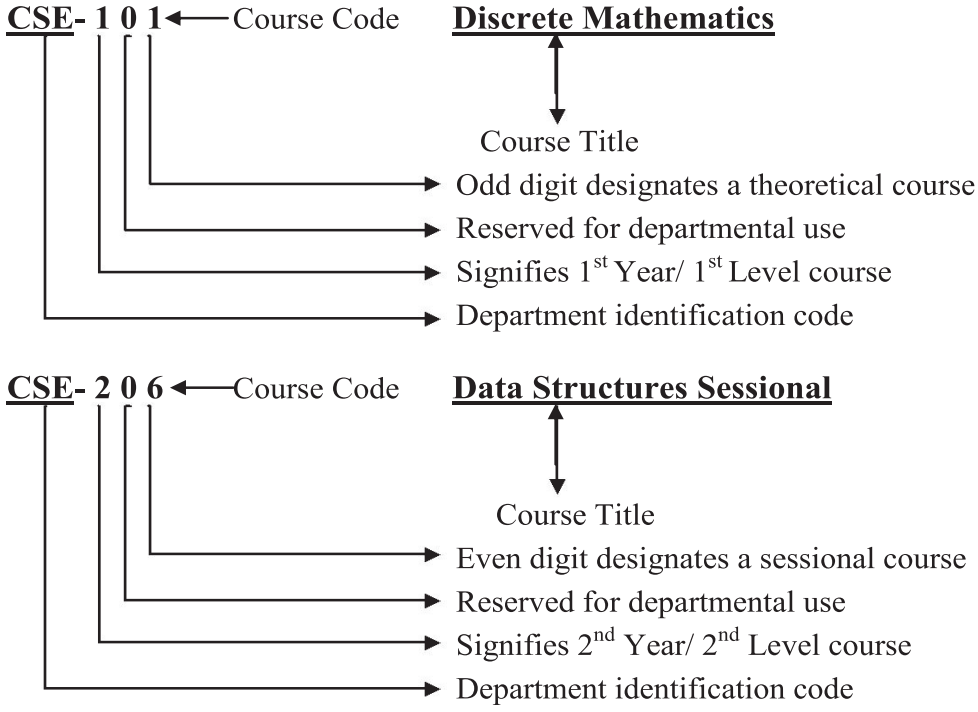
8. Each course is designated by a maximum of three/four letter code identifying the department offering the course followed by a three-digit number having the following interpretation:

a. The first digit corresponds to the year/level in which the course is normally taken by the students.

b. The second digit is reserved for departmental use. It usually identifies a specific area/group of study within the department.

c. The last digit is an odd number for theoretical courses and an even number for sessional courses.

9. The course designation system is illustrated as Follows:



Assignment of Credits

10. The assignment of credits to a theoretical course follows a different rule from that of a sessional course.

a. Theoretical Courses: One lecture per week per term is equivalent to one credit.

b. Sessional Courses: Credits for sessional courses is half of the class hours per week per term.

Credits are also assigned to project and thesis work taken by the students. The amount of credits assigned to such work varies from one discipline to another.

Types of Courses

11. The types of courses included in the undergraduate curriculam are divided into the following groups:

a. **Core Courses:** In each discipline, a number of courses are identified as core courses, which form the nucleus of the respective bachelor's degree program. A student has to complete all the designated core courses of his/her discipline.

b. **Prerequisite Courses:** Some of the core courses are identified as prerequisite courses for a specific subject.

c. **Optional Courses:** Apart from the core courses, the students can choose from a set of optional courses. A required number of optional courses from a specified group have to be chosen.

Course Offering and Instruction

12. The courses to be offered in a particular term are announced and published in the Course Catalog along with the tentative Term Schedule before the end of the previous term. The courses to be offered in any term will be decided by Board of Undergraduate Studies (BUGS) of the respective department.

13. Each course is conducted by a course teacher who is responsible for maintaining the expected standard of the course and for the assessment of students' performance. Depending on the strength of registered students (i.e. on the number of students) enrolled for the course, the teacher concerned might have course associates and Teaching Assistants (TA) to aid in teaching and assessment.

Teacher Student Interaction

14. The new course system encourages students to come in close contact with the teachers. For promotion of a high level of teacher-student interaction, each student is assigned to an adviser and the student is free to discuss all academic matters with his/her adviser. Students are also encouraged to meet any time with other teachers for help and guidance in academic matters. However, students are not allowed to interact with teachers after the moderation of questions.

Student Adviser

15. One adviser is normally appointed for a group of students by the BUGS of the concerned department. The adviser advises each student about the courses to be taken in each term by discussing the academic program of that particular term with the student.

16. However, It is also the student's responsibility to keep regular contact with his/her adviser who will review and eventually approve the student's specific plan of study and monitor subsequent progress of the student.

17. For a student of second and subsequent terms, the number and nature of courses for which he/she can register is decided on the basis of academic performance during the previous term. The adviser may permit the student to drop one or more courses based on previous academic performance.

Course Registration

18. Any student who uses classroom, laboratory facilities or faculty-time is required to register formally. Upon admission to the MIST, students are assigned to advisers. These advisers guide the students in choosing and registering courses.

19. **Registration Procedure.** At the commencement of each term, each student has to register for courses online in consultation with and under the guidance of his/her advisor. The date, time and venue of registration are announced in advance by the Registrar's Office. It is absolutely essential that all the students be present for registration at the specified time.

20. **Pre-conditions for Registration**.

a. For first year students, department-wise enrollment/admission is mandatory prior to registration. At the beginning of the first term, an orientation program will be conducted for them where they are handed over with the registration package on submission of the enrolment slip.

b. Any student, other than the new batch, with outstanding dues to the MIST or a hall of residence is not permitted to register. Each student must clear their dues and obtain a clearance certificate, upon production of which, he/she will be given necessary Course Registration Forms to perform course registration.

c. A student is allowed to register in a particular course subject to the class capacity constraints and satisfaction of pre-requisite courses. However, even if a student fails in a pre-requisite course in any term, the concerned department (BUGS) may allow him/her to register for a course which depends upon the pre-requisite course provided that his/her attendance and performance in the continuous assessment of the mentioned pre- requisite course is found to be satisfactory.

21. **Registration Deadline**. Each student must register for the courses to be taken before the commencement of each term. Late registration is permitted only during the first week of classes. Late registration after this date will not be accepted unless the student submits a written application to the registrar through the concerned Head of the department explaining the reasons for delay. Acceptable reasons may be medical problems with supporting documents from the Medical Officer of MIST or some other academic commitments that prohibit enrollment prior to the last date of registration.

22. **Penalty for Late Registration**. Students who fail to register during the designated dates for registration are charged a late registration fee of Tk. 100.00 (One hundred only) per credit hours. Under no circumstances, the penalty for late registration will be waived.

Limits on the Credit Hours to be taken

23. A student should be enrolled for at least 15 credit hours and is allowed to take a maximum of 24 credit hours. Relaxation on minimum credit hours may be allowed. A student must enroll for the sessional courses prescribed in a particular term within the allowable credit hour limits.

24. In special cases where it is not possible to allot the minimum required 15 credit hours to a student, the concerned department (BUGS) may permit with the approval of the Commandant, a lesser number of credit hours to suit individual requirements. Only graduating students may be allowed to register less than 15 credit hours without approval of Commandant.

Course Add/Drop

25. A student has some limited options to add or delete courses from the registration list. Addition of courses is allowed only within the first two weeks of a regular term. Dropping a course is permitted within the first four weeks of a regular term. Add or drop is not allowed after registration of courses for Supplementary-I and Supplementary-II examination.

26. Any student willing to add or drop courses has to fill up a Course Adjustment Form that is available in the Registrar's Office. This also has to be done in consultation with and under the guidance of the student's respective adviser. The original copy of the Course Adjustment Form has to be submitted to the Registrar's Office, where the required numbers of photocopies are made for distribution to the concerned adviser, Head, Dean, Controller of Examinations and the student.

27. All changes must be approved by the adviser and the Head of the concerned department. The Course Adjustment Form has to be submitted after being signed by the concerned persons.

Withdrawal from a Term

28. If a student is unable to complete the Term Final Examination due to serious illness or serious accident, he/she may apply to the Head of the degree awarding department for total withdrawal from the term before commencement of term final examination. However application may be considered during term final examination in special case. The application must be supported by a medical certificate from the Medical Officer of MIST. The Academic Council will take the final decision about such applications. However, the total duration for graduation will not exceed 6 academic years.

The Grading System

29. The total performance of a student in a given course is based on a scheme of continuous assessment for theory courses. This continuous assessment is made through a set of quizzes, class tests, class evaluation, class participation, homework assignment and a term final examination. The assessments for sessional courses are made by evaluating performance of the student at work during the class, viva-voce during laboratory hours and quizzes. Besides that, at the end there will be a final lab test. Each course has a certain number of credits, which describes its corresponding weightages. A student's performance is measured by the number of credits completed satisfactorily and by the weighted average of the grade points earned. A minimum grade point average (GPA) is essential for satisfactory progress. A minimum number of earned credits also has to be acquired in order to qualify for the degree. Letter grades and corresponding grade points will be given as follows:

Numerical Markings	Grade	Grade Points
80% and above	A+	4.00
75% to below 80%	A	3.75
70% to below 75%	A-	3.50
65% to below 70%	B+	3.25
60% to below 65%	B	3.00
55% to below 60%	B-	2.75
50% to below 55%	C+	2.50
45% to below 50%	C	2.25
40%to below 45%	D	2.00
below 40%	F*	0.00
	AB	Absent
	DC	Dis-collegiate
	VW	Voluntary Withdrawn
	X	Project/ Thesis Continuation
	E	Expelled
	S	Satisfactory

* Subject in which the student gets F grade shall not be regarded as earned credit hours for the calculation of Grade Point Average (GPA).

Distribution of Marks

30. **Theory.** Forty percent (40%) of marks of a theoretical course shall be allotted for continuous assessment, i.e. quizzes, home assignments, class tests, observations/ class performance, pop quizzes, projects and mid-term asssment. 40% marks must be submitted to Office of the Controller of Exam before commencement of final exam. The rest of the marks will be allotted to the Term Final Examination. The duration of final examination will be three (03) hours. The scheme of continuous assessment that a particular teacher would follow for a course will be announced on the first day of the classes. Distribution of marks for a given course per credit is as follows:

Class Performance	5%
Class Test/ Assignment	20%
Mid Term Assessment (Exam/ Project)	15%
Final Examination (Section A & B)	60%
Total	**100%**

Note:

a. In final exam, each section can be used for achieving not more than two course outcomes (COs).The remaining COs should be attained from mid-term assessment or class tests. Course teacher has to inform the students at the beginning of the terms.

b. Course teacher of a particular course has to inform the department whether he/she wants to assess mid-term through exam or project within first two week of beginning of a term. The duration of mid-term examination should not be more than 50 minutes which has to be conducted in between 6^{th} to 9^{th} week of a semester. If mid-term assessment is done through project, then there should be project report and presentation.

c. The weightage of class performance can be assessed through checking attentiveness during classes or arranging unnoticed pop quizzes.

d. The number of class tests shall be n for 3.0 and above credit courses and (n-1) shall be considered for grading where n is the number of credits of the course. However, for courses having credits below 3.0, the considered class tests shall be 2 out of 3.

e. All class test will carry 20 marks each. Exam software system will finally convert these achieved marks into total class test marks as per credit hour. i.e for n=1(20), n=2 (40), n=3 (60), n=4(80) etc.

f. Irrespective of the result of the continuous assessment (class performance, class test, mid-term assessment), a student has to appear in the final examination (where applicable) for qualifying/passing the concern course/ subject.

31. **Laboratory/ Sessional/ Practical Examinations** Sessional courses are designed and conducted by the concerned departments. Examination on Laboratory/ sessional/practical subjects will be conducted by the respective department before the commencement of term final examination. The date of practical examination will be fixed by the respective department. Students will be evaluated in the sessional courses on the basis of the followings.

a.	Conduct of lab test/ class performance	25%
b.	Report Writing/ Programming	15%
c.	Mid Term Evaluation (exam/ project/ assignment)	20%
d.	Final Evaluation (exam/ project/ assignment)	30%
e.	Viva Voce/ Presentation	10%
	Total	**100%**

32. **Laboratory/ Sessional Course in English** The distribution will be as under:

a.	Class performance/observation	10%
b.	Written Assignment	15%
c.	Oral Performance	25%
d.	Listening Skill	10%
e.	Group Presentation	30%
f.	Viva Voce	10%
	Total	**100%**

33. **Class Attendance** Class Attendance may be considered as a part of continuous assessment. No mark will be allotted for attending class.

Collegiate and Non-collegiate

34. Students having class attendance of 85% or above in individual subject will be treated as collegiate and less than 85% and up to 70% will be treated as non-collegiate in that subject. The non-collegiate student(s) may be allowed to appear in the examination subject to payment of non-collegiate fee/fine of an amount fixed by MIST/BUP. Students having class attendance below 70% will be treated as dis-collegiate and will not be allowed to appear in the examination and treated as fail. But in a special case such students may be allowed to appear in the examination with the permission of Commandant and it must be approved by the Academic Council.

Calculation of CGPA

35. Grade Point Average (GPA) is the weighted average of the grade points obtained of all the courses passed/completed by a student. For example, if a student passes/completes *n* courses in a term having credits of C1, C2, ...,Cn and his grade points in these courses are G1, G2, ...Gn respectively, then

$$GPA = \frac{Grade\ points\ earned\ in\ the\ semester}{Credits\ completed\ in\ the\ semester}$$

$$= \frac{Summation\ of\ (Credit\ hours\ in\ a\ course\ *\ Grade\ point\ earned\ in\ that\ course)}{Total\ number\ of\ credit\ hour's\ completed}$$

$$= \frac{\sum_{i=1}^{n} Ci * Gi}{\sum_{i=1}^{n} Ci}$$

36. The Cumulative Grade Point Average (CGPA) is the weighted average of the GPA obtained in all the terms passed/completed by a student. For example, if a student passes/ completes n terms having total credits of TC1, TC2, ... , TCn and his GPA in these terms are GPA1, GPA2,... , GPAn, respectively then

$$\boldsymbol{CGPA} = \frac{\sum_{i=1}^{n} TCi * GPAi}{\sum_{i=1}^{n} TCi}$$

Numerical Example
Suppose a student has completed nine courses in a term and obtained the following grades:

Course	Credit Ci	Grade Points	Gi	Ci*Gi
EECE-163	3.00	A	3.75	11.25
EECE-164	0.75	A+	4.00	3.00
MATH-141	3.00	A-	3.50	10.50
PHY-103	3.00	B+	3.25	9.75
HUM-101	3.00	A	3.75	11.25
HUM-102	1.50	A	3.75	5.625
CSE-101	3.00	A	3.75	11.25
CSE-103	3.00	A-	3.50	10.50
CSE-104	1.5	B+	3.25	4.875
Total	**21.75**			**78.00**

$$GPA = \frac{78.00}{21.75} = 3.59$$

Suppose a student has completed four terms and obtained the following GPA:

Level	Term	Earned Credit Hours	Earned GPA	TCi*GPAi
		Tci	GPAi	
1	I	21.75	3.75	81.5625
1	II	20.75	3.61	74.9075
2	I	19.50	3.21	62.595
2	II	21.00	2.98	62.58
Total		83.00		281.645

$$CGPA = \frac{281.645}{83} = 3.39$$

Minimum Earned Credit and GPA Requirement for Obtaining Degree

37. Minimum credit hour requirements for the award of bachelor's degree in engineering (B.Sc. Engineering) and other discipline will be decided as per existing rules. The minimum GPA requirement for obtaining a Bachelor's degree in Engineering and Architecture is 2.20.

Impacts of Grade Earned

38. The courses in which a student has earned a 'D' or a higher grade will be counted as credits earned by him/her. Any course in which a student has obtained an 'F' grade will not be counted towards his/her earned credits or GPA calculation. However, the 'F' grade will remain permanently on the Grade Sheet and the Transcript.

39. A student who obtains an 'F' grade in a core course will have to repeat that particular course. However, if a student gets an 'F' in an optional course, he/she may choose to repeat that course or take a substitute course if available. When a student will repeat a course in which he/she has previously obtained an 'F', he/she will not be eligible to get a grade better than 'B+' in that repeated course.

40. If a student obtains a grade lower than 'B+' in a particular course he/she will be allowed to repeat the course only once for the purpose of grade improvement. However, he/she will not be eligible to get a grade better than 'B+' for an improvement course.

41. A student will be permitted to repeat for grade improvement purposes a maximum of 6 courses in BSc. Engineering programs and a maximum of 7 courses in B. Arch. program.

42. If a student obtains a 'B+' or a better grade in any course he/she will not be allowed to repeat the course for the purpose of grade improvement.

Classification of Students

43. At MIST, regular students are classified according to the number of credit hours completed/ earned towards a degree. The following classification applies to all the students:

Level	Credit Hours Earned	
	Engineering/URP	Architecture
Level 1	0.0 to 36.0	0.0 to 34.0
Level 2	More than 36.0 to 72.0	More than 34.0 to 72.0
Level 3	More than 72.0 to 108.0	More than 72.0 to 110.0
Level 4	More than 108.0	More than 110.0 to 147.0
Level 5		More than 147.0

44. However, before the commencement of each term all students other than new batch are classified into three categories:

a. **Category 1:** This category consists of students who have passed all the courses described for the term. A student belonging to this category will be eligible to register for all courses prescribed for the upcoming term.

b. **Category 2:** This category consists of students who have earned a minimum of 15 credits but do not belong to category 1. A student belonging to this category is advised to take at least one course less since he might have to register for one or more backlog courses as prescribed by his/her adviser.

c. **Category 3:** This category consists students who have failed to earn the minimum required 15 credits in the previous term. A student belonging to this category is advised to take at least two courses less than a category 1 student subject to the constraint of registering at least 15 credits. However, he will also be required to register for backlog courses as prescribed by the adviser.

45. **Definition of Graduating Student** Graduating students are those students who will have ≤ 24 credit hour for completing the degree requirement.

Performance Evaluation

46. The performance of a student will be evaluated in terms of two indices, viz. Term Grade Point Average and Cumulative Grade Point Average which is the grade average for all the terms completed.

47. Students will be considered to be making normal progress toward a degree if their Cumulative Grade Point Average (CGPA) for all work attempted is 2.20 or higher. Students who regularly maintain a term GPA of 2.20 or better are making good progress toward the degrees and are in good standing with MIST. Students who fail to maintain this minimum rate of progress will not be in good standing. This can happen when any one of the following conditions exists.

a. The term GPA falls below 2.20.

b. The Cumulative Grade Point Average (CGPA) falls below 2.20.
c. The earned number of credits falls below 15 times the number of terms attended.

48. All such students can make up their deficiencies in GPA and credit requirements by completing courses in the subsequent term(s) and backlog courses, if there are any, with better grades. When the minimum GPA and credit requirements are achieved the student is again returned to good standing.

Minimum Earned Credit and GPA Requirement for Obtaining Degree

49. Minimum credit hour requirements for the award of Bachelor's degree in engineering (BSc Engg) and architecture (B Arch) will be decided by the respective department (BUGS). However, the syllabus of all BSc engineering prog must be of minimum 157 credit hours or more and for architecture prog minimum 189 credit hours or more. A student must earns minimum credit hour set in the syllabus by the concerned department for qualifying Bachelor's Degree. The minimum CGPA requirement for obtaining a Bachelor's degree in engineering and architecture is 2.20.

50. A student may take additional courses with the consent of his/her Adviser in order to raise CGPA, but he/she may take a maximum of 15 such additional credits in engineering and 18 such additional credits in architecture beyond respective credit-hour requirements for Bachelor's degree during his/her entire period of study.

Application for Graduation and Award of Degree

51. A student who has fulfilled all the academic requirements for Bachelor's degree will have to apply to the Controller of Examinations through his/her Adviser for graduation. Provisional Degree will be awarded by BUP on completion of credit and GPA requirements.

Time Limits for Completion of Bachelor's Degree

52. A student must complete his studies within a maximum period of six years for engineering and seven years for architecture bachelor's degree.

Attendance, Conduct and Discipline

53. MIST has strict rules regarding the issues of attendance in class and discipline.

54. **Attendance**. All students are expected to attend classes regularly. The university believes that attendance is necessary for effective learning. The first responsibility of a student is to attend classes regularly and one is required to attend the classes as per MIST rules.

55. **Conduct and Discipline**. During their stay in MIST all students are required to abide by the existing rules, regulations and code of conduct. Students are strictly forbidden to form or be members of student organization or political party, club, society etc., other than those set up by MIST authority in order to enhance student's physical, intellectual, moral and ethical development. Zero tolerance in regards of sexual abuse and harassment in any forms and drug abuse and addiction are strictly observed in the campus.

Teacher-Student Interaction

56. The academic system in MIST encourages students to come in close contact with the teachers. For promotion of high level of teacher-student's interaction, a course coordinator (CC) is assigned to each course. Students are free to discuss with CC about all academic matters. Students are also encouraged to meet other teachers any time for help and guidance for academic matters. Heads of the

departments, Director of Administration, Director of Students Welfare (DSW), Dean and Commandant address the students at some intervals. More so, monthly Commandant's Parade is organized in MIST where all faculty members, staff and students are formed up, thereby increasing teacher-student interaction.

Absence during a Term

57. A student should not be absent from quizzes, tests, etc. during the term. Such absence will naturally lead to reduction in points/marks, which count towards the final grade. Absence in the Term Final Examination will result in an F grade in the corresponding course. A student who has been absent for short periods, up to a maximum of three weeks due to illness, should approach the course teacher(s) or the course coordinator(s) for make-up quizzes or assignments immediately upon return to classes. Such request has to be supported by medical certificate from competent authority (e.g. CMH/MIST Medical Officer).

Recognition of Performance

58. As recognition of performance and ensure continued studies MIST awards medals, scholarships and stipends will be given as per existing rules and practices.

Types of Different Examination

59. Following different types of final Examinations will be conducted in MIST to evaluate the students of Undergraduate Programs:

Term Final Examination: At the end of each normal term (after 22wk or so), Term Final Examination will be held. Students will appear in the Term Final Examination for all the theory courses they have taken in the Term.

b. **Supplementary Examination:** It will take place twice in a year. Supplementary-I is defined as provision of giving exam in the first week of Spring Term (Jan-Jun) / Fall Term(Jul-Dec) end break and Supplementary-II in the first week of Fall Term (Jul-Dec) / Spring Term (Jan-Jun) end break, respectively. Students will be allowed to register for a maximum of two theory courses (Failed/Improvement) in Supplementary-I and maximum of one theory course (Failed/Improvement) in Supplementary-II.

c. **Improvement Examination:** It will be taken during Supplementary-I and Supplementary-II Examination. Questions will be same as the question of the regular examination of that Supplementary Examination (if any). Student can take maximum two subjects at a time (two subjects in supplementary-I and one subject in supplementary-II) and maximum 6 subjects in the whole academic duration. If a student obtains a grade lower than 'B+' in a course, he/she will be allowed to repeat the course only once for grade improvement. However, he/she will not be eligible to get a grade better then 'B+' for an improvement course. Among the previous result and improvement examination result, best one will be considered as final result for an individual student. However, performance of all examination i,e previous to improvement examination, shall be reflected in the transcript.

Rules of Different Examinations

60. **Term Final Examination.** Following rules to be followed:

a. Registration to be completed before commencement of the Term. A student has to register his desired courses paying registration, examination fee and other related fees.

b. Late registration will be allowed without penalty within first two weeks of the term.
c. Within 1st two weeks of a term a student can Add/Drop course/courses. To add a course, in the 3rd week, one has to register the course by paying additional fees. To drop a course, one has to apply within three weeks and paid fees will be adjusted/ refunded. If anyone wants to drop a course after three weeks and within 4 weeks, that will be permitted but paid fees will not be refunded in that case.
d. Registrar office will finalize registration of all courses within 7 (seven) weeks, issue registration slip and that will be followed by issuing Admit Card.
e. Term Final Examination to be conducted in the 18-20th week of the term as per approved Academic Calendar.

61. **Supplementary Examination.** Following rules to be followed:

a. Supplementary-I is defined as provision of giving exam in the first week of Spring Term (Jan-Jun) / Fall Term (Jul-Dec) end break and Supplementary-II in the first week of Fall Term (Jul-Dec) / Spring Term (Jan-Jun) end break, respectively.
b. Students will be allowed to register for a maximum of two theory courses (Failed/Improvement) in Supplementary-I and maximum of one theory course (Failed/Improvement) in Supplementary-II.
c. No class will be conducted.
d. 40% marks will be considered from the previous exams.
e. Maximum grading in Supplementary Exam will be 'B+'.
f. No Sessional Exam will be conducted.
g. Examination will be taken on 60% marks like Term Final Examination.
h. If a student fails in a course more than once in regular terms, then for calculating 40% marks best one of all continuous assessment marks will be counted.
j. If anyone fails in the laboratory/sessional course, that course cannot be taken in the supplementary examination.
k. If any student fails in a course, he can clear the course retaking it 2nd time or, he can clear the examination appearing at the supplementary examination as well. Any one fails twice in a course, can only retake it in the regular term for appearing third time. But anyone fails even after appearing third time. He/she has to take approval of Academic Council of MIST for appearing 4th (last) time in a course and need to pay extra financial penalty. If any student fails even 4th time in a course, will not be allowed to appear anymore in this same course.
l. Registration of Supplementary-I Exam to be done within 5th wk after completion of Fall Term (July to Dec) and registration of Supplementary-II exam to be done during the Mid-Term break of Spring Term (Jan to Jun), paying all the required fees.
m. There will be no provision for add/drop courses after registration.
n. Question Setting, Moderation, and Result Publication to be done following the same rules of Spring (Jan to Jun) / Fall (July to Dec) Term Final Exam as per existing Examination Policy.
p. Moderation of the questions for Supplementary-I will be done in the 5th week after completion of Fall Term (July to Dec) Final Exam and Supplementary-II with the moderation of the questions of Spring Term(Jan to Jun).
q. Separate Tabulation sheet to be made.
r. **Thesis:** if a student cannot complete thesis in two consecutive terms, with the recommendation of the supervisor, he/she may continue for next one/two term within six academic years.

62. **Improvement Examination.** Following rules to be followed:

a. Improvement examination is to be taken during the Supplementary-I and Supplementary-II examinations.

b. For Improvement examination, registration is to be done during the registration of Supplementary-I and Supplementary-II examinations by paying all the fees.
c. Question Setting, Moderation and Result Publication to be done with courses of Supplementary-I and Supplementary-II examinations.
d. Any student gets a grading below 'B+' and desires to improve that course; he will be allowed to appear the improvement examination for that particular course.
e. Highest grade of Improvement examination will be 'B+'.
f. One student is allowed to appear at Improvement exam in 6 (six) courses in his whole graduation period taking maximum two courses at a time (two courses at supplementary-I and one course at supplementary-II).

Irregular Graduation

63. If any graduating student clears his/her failed course in Term-1 and his graduation requirements are fulfilled, his graduation will be effective from the result publication date of Term-1 and that student will be allowed to apply for provisional certificate.

Conclusion

64. Most of the universities of the world follow course system. As such this will also help MIST to follow accreditation requirements. The new system is required to be understood by all faculties by heart in order to advise students properly.

DISTRIBUTION OF CREDIT HOURS

FACULTY OF CIVIL ENGINEERING

CE Department

Level	Term	Credit Hour
1	I	20.00
	II	20.00
2	I	20.00
	II	20.00
3	I	19.00
	II	20.50
4	I	20.50
	II	20.00
Total Credit Hours:		**160.00**

Arch Department

Level	Term	Credit Hour
1	I	19.00
	II	20.50
2	I	21.00
	II	21.00
3	I	19.50
	II	19.50
4	I	17.50
	II	17.50
5	I	17.50
	II	16.00
Total Credit Hours:		**189.00**

EWCE Department

Level	Term	Credit Hour
1	I	18.50
	II	19.50
2	I	20.50
	II	18.50
3	I	20.50
	II	21.00
4	I	20.50
	II	20.00
Total Credit Hours:		**159.00**

PME Department

Level	Term	Credit Hour
1	I	18
	II	20.5
2	I	22.5
	II	20.5
3	I	20.5
	II	21
4	I	19
	II	19.5
Total Credit Hours:		**160.0**

FACULTY OF ELECTRICAL AND COMPUTER ENGINEERING

CSE Department

Level	Term	Credit Hour
1	I	20.75
	II	19.25
2	I	20.25
	II	21.50
3	I	20.25
	II	19.50
4	I	19.25
	II	19.25
Total Credit Hours:		**160.00**

EECE Department

Level	Term	Credit Hour
1	I	18.50
	II	18.50
2	I	20.00
	II	19.00
3	I	21.50
	II	21.00
4	I	21.00
	II	20.50
Total Credit Hours:		**160.00**

FACULTY OF MECHANICAL ENGINEERING

ME Department

Level	Term	Credit Hour
1	I	20.50
	II	18.00
2	I	18.00
	II	21.50
3	I	21.50
	II	19.50
4	I	21.50
	II	19.50
Total Credit Hours:		**160.00**

AE Department

Level	Term	Credit Hour	
		Aerospace	Avionics
1	I	19.25	19.25
	II	21.25	21.25
2	I	18.75	21.75
	II	22.50	22.50
3	I	20.75	20.00
	II	20.50	20.25
4	I	18.50	18.50
	II	18.50	16.50
Total Credit Hour:		**160.00**	**160.00**

NAME Department

Level	Term	Credit Hour
1	I	20.0
	II	21.0
2	I	20.0
	II	19.5
3	I	20.5
	II	20.5
4	I	19.0
	II	19.5
Total Credit Hours:		**160.0**

IPE Department

Level	Term	Credit Hour
1	I	18.00
	II	18.25
2	I	23.00
	II	21.00
3	I	21.25
	II	21.00
4	I	21.00
	II	16.50
Total Credit Hours:		**160.00**

FACULTY OF SCIENCE AND ENGINEERING

BME Department

Level	Term	Credit Hour
1	I	18.50
	II	19.00
2	I	18.50
	II	21.00
3	I	21.50
	II	19.50
4	I	21.50
	II	20.50
Total Credit Hours:		**160.00**

NSE Department

Level	Term	Credit Hour
1	I	18.50
	II	21.50
2	I	20.25
	II	20.75
3	I	20.00
	II	19.75
4	I	20.50
	II	18.75
Total Credit Hours:		**160.00**

DISTRIBUTION OF MARKS

Theory Courses

Thirty percent (30%) of marks shall be allotted for continuous assessment i.e, class participation / observation, class attendance, homework, assignment and class tests. The remaining 70% marks will be allotted to term final examination, which will be conducted centrally by the Institute. There will be internal and external examiners for each course in the term final examination. The distribution of marks for a given course is as follows:

Class Participation/Observations	5%
Class Attendance	5%
Homework Assignment and Class Test	20%
Final Examination (Sec A + Sec B)	70%
Total:	100%

Marks in Attendance

Basis for awarding marks for class participation and attendance is as follows:

Attendance	Marks
90% and above	100%
85% to less than 90%	80%
80% to less than 85%	60%
75% to less than 80%	40%
Below 75%	0%

Sessional Courses

The sessional or part of sessional courses will be conducted and assessed throughout the term. In addition, the concerned teacher shall arrange final quiz/examination.

PHOTO GALLERY

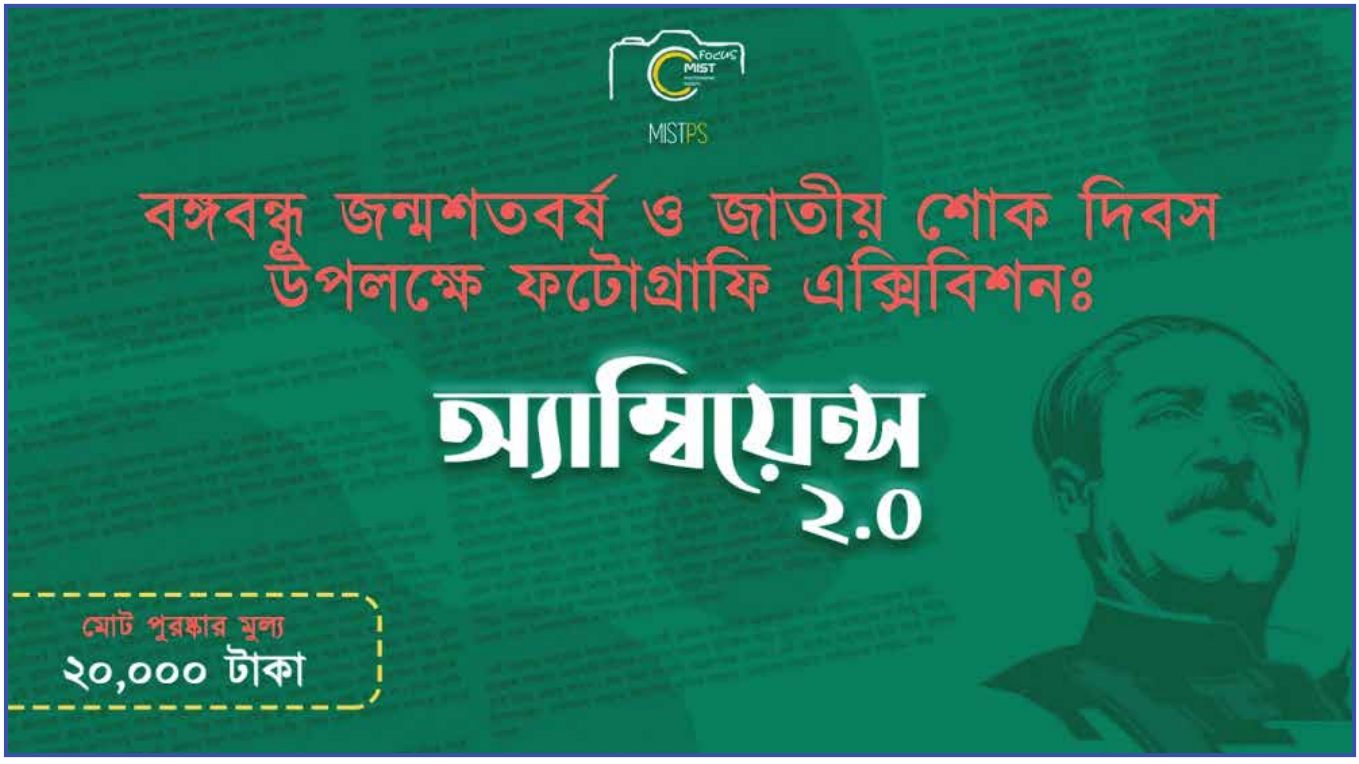
Graduation Ceremony 2020

Launching Ceremony of Session 2019-20

Regulatory Bodies Meeting

Observance of Birth Centenary of Father of the Nation and National Children Day 2021

Observance of Graduating from a Least Developed Country (LDC) to a Developing Country (DC)



Online Photography Exhibition Bangabandhu Jonmo Shoto Borsho & National Mourning Day Photography Exhibition: Ambience 2.0

Online Bangabandhu Jonmo Shotoborsho Inter Department Cultural Program

Bangabandhu Jonmoshotoborhso Photo Exhibition and Orientation of MIST Photographic Society

MIST Project Fair-2020

Inauguration Ceremony of Bio-Gas Plant of MIST

Corona Awareness Program

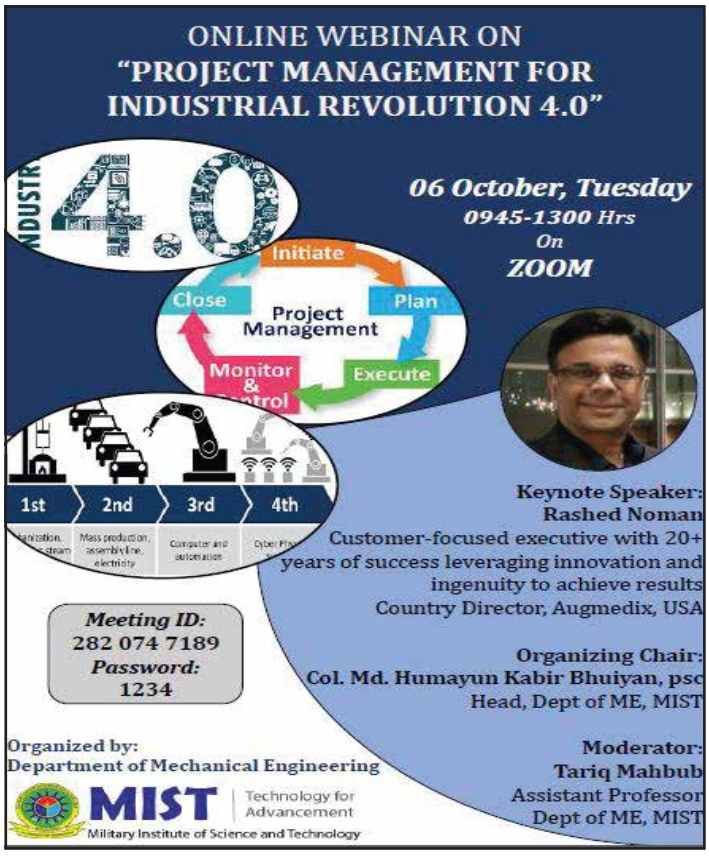
Meeting Held with a2i Innovation Lab Regarding Collaboration Research and Development

Global Competition on Medical Robotics Challenges for Contagious Diseases 2020

National Collegiate Programming Contest (NCPC)-2020

Online Counseling at MIST During Covid-19

A Webinar on Adapting to Online Teaching-Learning During Covid-19 Pandemic: Challenges and Mitigation Strategies



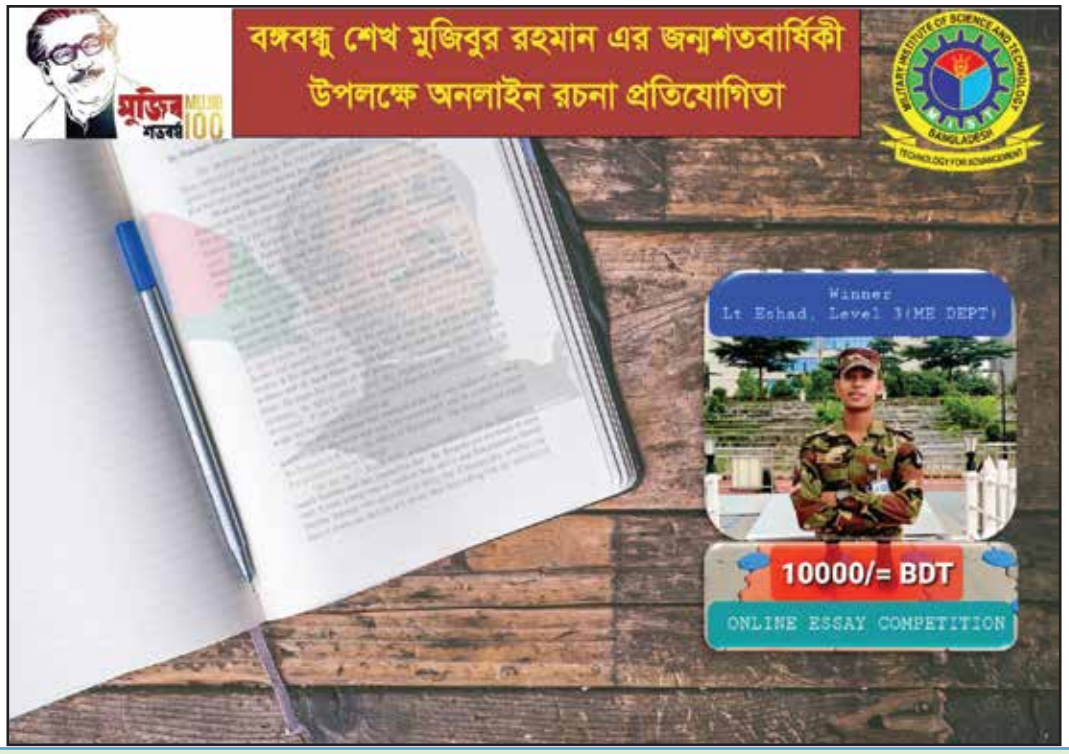
Online Webinar on Project Management for Industrial Revolution 4.0

Webinar on Nuclear Fuel Cycle and Waste Management

A Webinar Comprising Three Lectures by CE Department

Webinar on Space Studies and Research in Bangladesh

Webinar on Navigating My Career as a CSE graduate



Mujib Borsho Online Essay Competition

Civil Engineering Online Competition 2020

Virtual Robotics Competition

MIST Captain's Election-2020

Workshop Online Hydraulic System

Acquisition, Assembling and Running Dynamometer for CATS

Short Course on Ship Design Using Maxsurf and Rhinoceros

Truss Challenge Competition in CE Fest

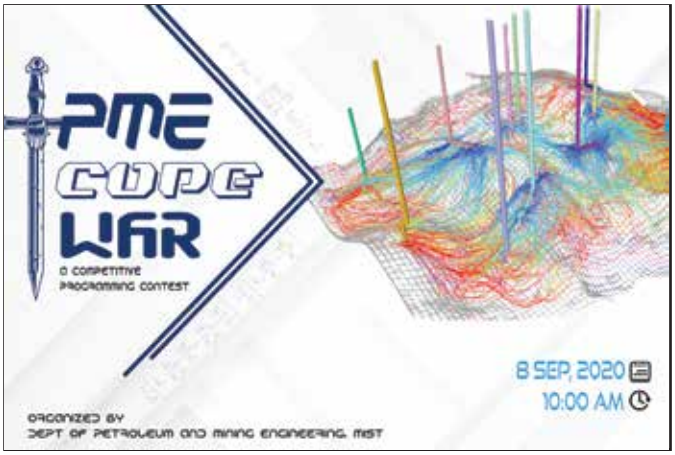
Workshop on Techniques of Model Making

Faculty Achievement

Award at Basis SoftExpo 2020

Memory Competition in MIST by BME Department as part of Campus Day

Seminar on 'National Productivity Day'



Online Co-Curricular Activities and Competition on PME Code Wars- A Competitive Programming Contest.

MIST Admission Test 2021

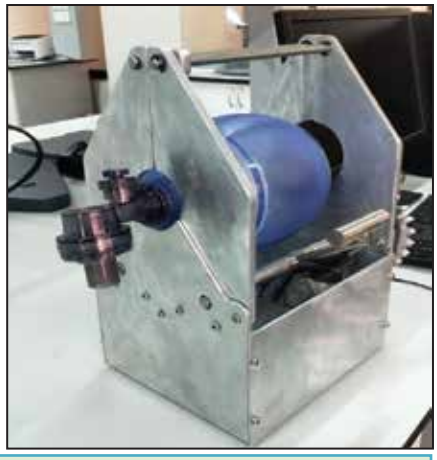
Survey Camp 2021

MIST Hand Sanitizer Project

BME Department Supplied Hand Sanitizers Nationwide for Combating COVID-19

UV Disinfection Chamber Project by BME Dept.

Automatic Hand Sanitizer Refill Station Project by BME Dept.



Ventilator Project by BME Department

Students with Head of NSE Department of MIST have Visited Singapore in Order to Attend a Conference on Safety of Nuclear Reactors.

10th International Conference on Geotechnique, Construction Materials and Environment

BME Students Participated in the AEO-2020 held in Indonesia

Industrial Training Visit of AE Department to BAF Bangabandhu Base

CE Dept Annual Picnic 2019

EECE Dept Annual Picnic 2019

EWCE Dept Annual Picnic 2019

Inter Department Athletics Competition 2019

Inter Department Basketball Competition 2019

Inter Department Volleyball Competition 2019

Inter Department Football Competition 2020

Barsha Utshab 1426

Bangla New Year 1426

Inter Department Cultural Competition and Nobin Boron 2020

Boshonto Boron 2020

Campus Hour

MIST Central Library

Reading Room

Newspaper Reading Corner

Medical Centre

Fitness Centre

MIST Cafeteria

STUDENTS' ACCOMMODATION (OSMANY HALL)

FACULTY ACCOMMODATION

SYLLABI OF ALL DEPARTMENTS

FACULTY OF CIVIL ENGINEERING

DEPT OF CIVIL ENGINEERING

Total Credit Hours: 160

Level-1, Term-I

Course Code	Course Name	Type of Course	Contact Hour	Credits
PHY 101	Waves and Oscillation, Optics and Modern Physics	Theory	3.0	3.0
CHEM 101	Fundamentals of Chemistry	Theory	3.0	3.0
MATH 101	Differential and Integral Calculus	Theory	3.0	3.0
GEBS 101	Bangladesh Studies	Theory	2.0	2.0
CE 101	Analytical Mechanics	Theory	3.0	3.0
		Subtotal (Theory)	**14.0**	**14.0**
CSE 176	Computer Programming Sessional	Sessional	3	1.5
ME 132	Workshop Technology Sessional	Sessional	3	1.5
CHEM 102	Chemistry Sessional	Sessional	3	1.5
CE 100	Civil Engineering Drawing	Sessional	3	1.5
		Subtotal (Sessional)	**12.00**	**6.00**
		Total =	**26.00**	**20.00**

Level-1, Term-II

Course Code	Course Name	Type of Course	Contact Hour	Credits
PHY 107/ CHEM 105	Structure of Matter, Heat and Temperature, Kinetics and Kinematics/ Environmental Chemistry	Theory	3	3
MATH 103	Differential Equations and Matrix	Theory	3	3
GES 101	Fundamentals of Sociology	Theory	2	2
EECE 165	Basic Electrical Technology	Theory	3	3
CE 103	Surveying and Spatial Information Engineering	Theory	3	3
		Subtotal (Theory)	**14.00**	**14.00**
PHY 102	Physics Sessional	Sessional	3	1.5
LANG 102	Communicative English I	Sessional	3	1.5
CE 102	Computer Aided Drawing	Sessional	3	1.5
CE 104	Practical Surveying	Field work	3wks	1.5
		Subtotal (Sessional & Field Work)	**9.00**	**6.00**
		Total =	**23.00**	**20.00**

Level-2, Term-I

Course Code	Course Name	Type of Course	Contact hours	Credits
MATH 201	Vector Analysis, Laplace Transform and Coordinate Geometry	Theory	2	2
GEA 201/ GEE 201	Principles of Accounting/ Fundamentals of Economics	Theory	3	3
CE 203	Engineering Geology and Geomorphology	Theory	3	3
CE 211	Mechanics of Solids I	Theory	3	3
CE 261	Fluid Mechanics	Theory	3	3
		Subtotal (Theory)	**14.00**	**14.00**
LANG 202	Communicative English II	Sessional	3	1.5
CE 200	Details of Construction	Sessional	3	1.5
CE 210	GIS and Remote Sensing	Sessional	3	1.5
CE 100	Civil Engineering Drawing	Sessional	3	1.5
		Subtotal (Sessional)	**12.00**	**6.00**
		Total =	**26.00**	**20.00**

Level-2, Term-II

Course Code	Course Name	Type of Course	Contact hours	Credits
MATH 203	Applied Mathematics for Engineers	Theory	3	3
GELM 275	Leadership and Management	Theory	2	2
CE 201	Engineering Materials	Theory	3	3
CE 205	Numerical Methods for Engineering	Theory	3	3
CE 213	Mechanics of Solids II	Theory	3	3
		Subtotal (Theory)	**14.00**	**14.00**
CSE 274	Engineering Computations Sessional	Sessional	3	1.5
ARCH 214	Architectural, Engineering and Planning Appreciation	Sessional	3	1.5
CE 208	Quantity Surveying	Sessional	3	1.5
CE 212	Structural Mechanics and Materials Sessional	Sessional	3	1.5
		Subtotal (Sessional)	**12.00**	**6.00**
		Total =	**26.00**	**20.00**

Level-3, Term-I

Course Code	Course Name	Type of Course	Contact hours	Credits
CE 311	Structural Analysis and Design I	Theory	4	4
CE 315	Design of Concrete Structures I	Theory	3	3
CE 331	Environmental Engineering I	Theory	3	3
CE 341	Principles of Soil Mechanics	Theory	4	4
		Subtotal (Theory)	**14.00**	**14.00**
GERM 352	Fundamentals of Research Methodology	Sessional	4	2
CE 332	Environmental Engineering Sessional	Sessional	3	1.5
CE 342	Geotechnical Engineering Sessional	Sessional	3	1.5
		Subtotal (Sessional)	**10.00**	**5.00**
		Total =	**24.00**	**19.00**

Level-3, Term-II

Course Code	Course Name	Type of Course	Contact hours	Credits
CE 317	Design of Concrete Structures II	Theory	3	3
CE 333	Environmental Engineering II	Theory	4	4
CE 343	Foundation Engineering	Theory	3	3
CE 351	Fundamentals of Transportation Engineering	Theory	3	3
CE 361	Open Channel Hydraulics	Theory	3	3
		Subtotal (Theory)	**16.00**	**16.00**
CE 300	Civil Engineering Students' Internship Programme (CESIP)	Internship	3 wks	1.5
CE 316	Concrete Structures Design Sessional I	Sessional	3	1.5
CE 362	Open Channel Hydraulics Sessional	Sessional	3	1.5
		Subtotal (Sessional)	**6.00**	**4.50**
		Total =	**22.00**	**20.50**

Level-4, Term-I

Course Code	Course Name	Type of Course	Contact hours	Credits
CE 411	Structural Analysis and Design II	Theory	3	3
CE 413	Design of Steel Structures	Theory	3	3
CE 451	Highway Materials, Pavement Design and Railways	Theory	4	4
CE 463	Hydrology and Irrigation Engineering	Theory	4	4
		Subtotal (Theory)	**14.00**	**14.00**
CE 410	Concrete Structures Design Sessional II	Sessional	3	1.5
CE 414	Steel Structures Design Sessional	Sessional	3	1.5
CE 452	Highway Materials, Mix Design and Traffic Engineering Sessional	Sessional	3	1.5
CE 400	Final Year Research Project (FYP)	Thesis	4	2
		Subtotal (Thesis, Sessional & Project)	**13.00**	**6.50**
		Total =	**27.00**	**20.50**

Level-4, Term-II

Course Code	Course Name	Type of Course	Contact hours	Credits
GEPM 401	Project Planning and Construction Management	Theory	3	3
GEEP 403	Engineering Ethics and Professional Practices	Theory	2	2
CE 4XX	Two Theory Courses in Major Division from Elective Courses	Theory	4	4
CE 4XX	Two Theory Courses in Minor Division from Elective Courses	Theory	4	4
		Subtotal (Theory)	**13.00**	**13.00**
CE 400	Final Year Research Project (FYP)from Elective Courses	Thesis	8	4
CE 4XX	One Lab Course in Major Division from Elective Courses	Sessional	3	1.5
CE 4XX	One Lab Course in Major Division from Elective Courses	Sessional	3	1.5
		Subtotal (Thesis, Sessional)	**14.00**	**7.00**
		Total =	**27.00**	**20.00**

List of Elective Courses for Structural Discipline (Any Two Theory & One Sessional)

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 415	Pre-stressed Concrete	Theory	2	2
2.	CE 417	Design of Concrete Structures III	Theory	2	2
3.	CE 419	Introduction to Finite Element Method	Theory	2	2
4.	CE 421	Dynamics of Structures	Theory	2	2
5.	CE 423	Structural Safety	Theory	2	2
6.	CE 425	Seismic Design of Structures	Theory	2	2
7.	CE 427	Advanced Solid Mechanic	Theory	2	2
8.	CE 429	Design of Steel-Concrete Composite Structure	Theory	2	2
9.	CE 412	Bridge Design Sessional	Sessional	3	1.5

List of Elective Courses for Environment Discipline (Any Two Theory & One Sessional)

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 431	Natural Resources and Renewable Energy	Theory	2	2
2.	CE 433	Solid and Hazardous Waste Management	Theory	2	2
3.	CE 435	Environmental Pollution and Management	Theory	2	2
4.	CE 437	Climate Change and Disaster Management	Theory	2	2
5.	CE 439	Environmental Impact Assessment and Sustainability	Theory	2	2
6.	CE 432	Design of Water Supply, Sanitation and Sewerage Systems	Sessional	3	1.5

List of Elective Courses for Geotechnical Discipline (Any Two Theory & One Sessional)

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 443	Earth Retaining Structures	Theory	2	2
2.	CE 445	Elementary Soil Dynamics	Theory	2	2
3.	CE 447	Soil-Water Interaction	Theory	2	2
4.	CE 449	Numerical Methods in Geotechnics	Theory	2	2
5.	CE 442	Foundation Design Sessional	Sessional	3	1.5

List of Elective Courses for Transportation Discipline (Any Two Theory & One Sessional)

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 453	Traffic Engineering Design and Management	Theory	2	2
2.	CE 455	Pavement Management, Drainage and Airport Engineering	Theory	2	2
3.	CE 457	Urban Transportation Planning & Management	Theory	2	2
4.	CE 459	Intelligent Transportation System	Theory	2	2
5.	CE 461	Railway Engineering	Theory	2	2
6.	CE 454	Traffic Studies and Pavement Design Sessional	Sessional	3	1.5

List of Elective Courses for Water Discipline (Any Two Theory & One Sessional)

Sl	Course Code	Course Name	Type of Course	Contact hours	Credits
1.	CE 465	Groundwater Engineering	Theory	2	2
2.	CE 467	Flood Mitigation and Management	Theory	2	2
3.	CE 469	River Engineering	Theory	2	2
4.	CE 471	Hydraulic Structures	Theory	2	2
5.	CE 473	Coastal Engineering	Theory	2	2
6.	CE 472	Hydraulic Structures Design Sessional	Sessional	3	1.5

DEPT OF ARCHITECTURE

Total Offered Credit Hours: 221
Total Required Credit Hours: 189

	L-1, T-1		Cr.	Hr.
Core Sessional	Design Studios	ARCH 1102: Design Studio l	6	9
	Design Communication Studios	ARCH 1104: Architectural graphics l	3	6
	Total Cr. & Cr. Hr. Sessional		**9.0**	**15**
Core Theory	General Education	HUM 1111: English	2	2
		MATH 1111: Mathematics	2	2
	Design Related Theories	ARCH 1103: Design Theory I	2	2
		ARCH 1105: Building and Finish Material	2	2
	Technical System			
	History, Human Behavior & Environment	ARCH 1101: Art and Architecture I	2	2
	Practice			
	Total Cr.& Cr. Hr. Core Theory		**10**	**10**
Elective Theory	General Education			
	Technical System			
	Design Related Theories			
	History, Human Behavior & Environment			
	Total Cr. & Cr. Hr. Elec. Theory		**0**	**0**
	Total Credit and Contact Hours of L-1, T-1		**19.0**	**25**

	L-1, T-2		Cr.	Hr.
Core Sessional	Design Studios	ARCH 1202: Design Studio ll pre req. ARCH 1102: Design Studio l pre req. ARCH 1104: Architectural Graphics l	6	9
	Design Communication Studios	ARCH 1204: Architectural graphics ll pre req. ARCH 1104: Architectural Graphics l	3	6
		ARCH 1230: Computer Application l	1.5	3
	Total Cr. Hr. Sessional		**10.5**	**18**
Core Theory	General Education	HUM 1213: Sociology	2	2
		PHY 1211: Physics	2	2
	Design Related Theories	ARCH 1205: Climate and Design	2	2
		ARCH 1203: Design Theory II	2	2
	Technical System			
	History, Human Behavior & Environment	ARCH 1201: Art and Architecture ll	2	2
	Practice			
	Total Cr.& Cr. Hr. Core Theory		**10**	**10**
Elective Theory	General Education			
	Technical System			
	Design Related Theories			
	History, Human Behavior & Environment			
	Total Cr.& Cr. Hr. Elec. Theory		**0**	**0**
	Total Credit and Contact Hours of L-1, T-2		**20.5**	**28**

	L-2, T-1		Cr.	Hr.
Core Sessional	Design Studios	ARCH 2102: Design Studio lll	8	12
		pre req. ARCH 1202: Design Studio ll pre req. ARCH 1204: Architectural graphics ll		
	Design Communication Studios	ARCH 2104: Graphic Art & Sculpture	1.5	3
		ARCH 2130: Computer Application ll	1.5	3
		pre req. ARCH 1230: Computer Application l		
	Total Cr.& Cr. Hr. Sessional		**11.0**	**18**
Core Theory	General Education			
	Design Related Theories	ARCH 2103: Visual & Sonic Environment	2	2
		ARCH 2105: Basic Planning	2	2
	Technical System	CE 2121: Structure I	2	2
	History, Human Behavior & Environment	ARCH 2101: Art and Architecture lll	2	2
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**8**	**8**
Elective Theory	General Education	HUM 2111: Logic and Philosophy	2	2
		HUM 2113: Psychology and Behavior		
	Technical System			
	Design Related Theories			
	History, Human Behavior & Environment			
	Total Cr.& Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-2, T-1		**21**	**28**

	L-2, T-2		Cr.	Hr.
Core Sessional	Design Studios	ARCH 2202: Design Studio lV	8	12
		pre req. ARCH 2102: Design Studio lll		
	Design Communication Studios	ARCH 2204: Photography and Film	1.5	3
		ARCH 2230: Computer Application lI	1.5	3
	Total Cr. & Cr. Hr. Sessional		**11.0**	**18**
Core Theory	General Education			
	Design Related Theories	ARCH 2203: Landscape Design	2	2
	Technical System	CE 2221: Structure ll	2	2
		EWC 2231: Building Services I: Plumbing	2	2
	History, Human Behavior & Environment	ARCH 2201: Art and Architecture lV	2	2
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**8**	**8**
Elective Theory	General Education			
	Technical System			
	Design Related Theories	ARCH 2205: Design in the Tropics	2	2
		ARCH 2207: Green & Sustainable Architecture		
		ARCH 2209: Vernacular Architecture		
	History, Human Behavior & Environment			
	Total Cr. & Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-2, T-2		**21**	**28**

	L-3, T-1		Cr.	Hr.
Core Sessional	Design Studios	ARCH 3102: Design Studio V	8	12
		pre req. ARCH 2202: Design Studio lV		
	Design Communication Studios	ARCH 3104: Landscape Design Studio	1.5	3
	Total Cr. & Cr. Hr. Sessional		**9.5**	**15**
Core Theory	General Education			
	Design Related Theories			
	Technical System	CE 3121: Structure lll	2	2
		ME 3141: Building Services II: Mechanical Equipment	2	2
		ARCH 3161: Construction Method & Details	2	2
	History, Human Behavior & Environment	ARCH 3101: Architecture of Bengal	2	2
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**8**	**8**
Elective Theory	General Education			
	Technical System			
	Design Related Theories	ARCH 3103: Bio-Design and Architecture	2	2
		ARCH 3105: Advanced Construction & Building Technology		
		ARCH 3107: Modular Architecture, Production line & Customization		
	History, Human Behavior & Environment			
	Total Cr. & Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-3, T-1		**19.5**	**25**

	L-3, T-2		Cr.	Hr.
Core Sessional	Design Studios	ARCH 3202: Design Studio Vl	8	12
		pre req. ARCH 3102: Design Studio V		
	Design Communication Studios	ARCH 3204: Working Drawing I: Construction Drawing	1.5	3
	Total Cr. & Cr. Hr. Sessional		**9.5**	**15**
Core Theory	General Education			
	Design Related Theories	ARCH 3203: Urban Design	2	2
	Technical System	CE 3221: Structure lV	2	2
		EECE 3251: Building Services III: Electrical Equipment	2	2
	History, Human Behavior & Environment	ARCH 3201: Art and Architecture V	2	2
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**8**	**8**
Elective Theory	General Education			
	Technical System			
	Design Related Theories	ARCH 3205: Advanced Planning	2	2
		ARCH 3207: Rural Planning		
		ARCH 3209: Transportation and Mobility Design		
	History, Human Behavior & Environment			
	Total Cr. & Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-3, T-2		**19.5**	**25**

	L-4, T-1		Cr.	Hr.
Core Sessional	Design Studios	ARCH 4102: Design Studio Vll	8	12
		pre req. ARCH 3202: Design Studio Vl		
	Design Communication Studios	ARCH 4104: Working Drawing II: Production Drawing	1.5	3
		ARCH 3204: pre req. Working Drawing l		
	Total Cr. & Cr. Hr. Sessional		**9.5**	**15**
Core Theory	General Education			
	Design Related Theories	ARCH 4103: Interior Design	2	2
		ARCH 4105: Housing	2	2
	Technical System	ARCH 4161: Cost Estimation & Specification	2	2
	History, Human Behavior & Environment			
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**6**	**6**
Elective Theory	General Education			
	Technical System			
	Design Related Theories			
	History, Human Behavior & Environment	ARCH 4101: Music and Film Appreciation	2	2
		ARCH 4107: Post Modern Art & Architecture		
		ARCH 4109: Contemporary Architectural Theories		
	Total Cr.& Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-4, T-1		**17.5**	**23**

	L-4, T-2		Cr.	Hr.
Core Sessional	Design Studios	ARCH 4202: Design Studio Vlll	8	12
		pre req. ARCH 4102: Design Studio Vll		
	Design Communication Studios	ARCH 4204: Interior Design Studio	1.5	3
		ARCH 4206: Professional Training	0.0	0
	Total Cr. & Cr. Hr. Sessional		**9.5**	**15**
Core Theory	General Education	Hum 4211: Economics	2	2
		HUM 4213: Project Management	2	2
	Design Related Theories			
	Technical System	ARCH 4261: Survey Techniques	2	2
	History, Human Behavior & Environment			
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**6**	**6**
Elective Theory	General Education			
	Technical System	ARCH 4203: Ambient Technology and Building Environment	2	2
	Design Related Theories	ARCH 4205: Architecture in Extreme Environments		
		ARCH 4207: Spaces & Forms in Architecture		
	History, Human Behavior & Environment			
	Total Cr. & Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-4, T-2		**17.5**	**23**

	L-5, T-1		Cr.	Hr.
Core Sessional	Design Studios	ARCH 5102: Design Studio lX	10	15
		pre req. ARCH 4202: Design Studio Vll		
	Design Communication Studios	ARCH 5104: Seminar	1.5	3
	Total Cr. & Cr. Hr. Sessional		**11.5**	**18**
Core Theory	General Education	ARCH5175: Research Methodology	2	2
		Hum 5111: Accounting	2	2
	Design Related Theories			
	Technical System			
	History, Human Behavior & Environment			
	Practice			
	Total Cr. & Cr. Hr. Core Theory		**4**	**4**
Elective Theory	General Education			
	Technical System			
	Design Related Theories	ARCH 5103: Health Facilities Planning & Design	2	2
		ARCH 5105: Industrial & Commercial Building Design		
		ARCH 5107: Educational, Religious & Recreational Facilities Design		
	History, Human Behavior & Environment			
	Total Cr. & Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-5, T-1		**17.5**	**24**

	L-5, T-2		Cr.	Hr.
Core Sessional	Design Studios	ARCH 5202: Design Studio X / ARCH 5208: Design Studio X (Thesis)	12	18
		pre req. ARCH 5102: Design Studio lX		
	Design Communication Studios			
	Total Cr. Hr. Sessional		**12.0**	**18**
Core Theory	General Education			
	Design Related Theories			
	Technical System			
	History, Human Behavior & Environment			
	Practice	ARCH 5273: Professional Practice	2	2
	Total Cr. Hr. Core Theory		**2**	**2**
Elective Theory	General Education			
	Technical System	ARCH 5203: Building Safety Design	2	2
		ARCH 5205: Disaster & Post Disaster Responsive Architecture		
	Design Related Theories	ARCH 5207: Architecture for Children and Differently Able People		
		ARCH 5209: Architectural Conservation		
	History, Human Behavior & Environment			
	Total Cr. Hr. Elec. Theory		**2**	**2**
	Total Credit and Contact Hours of L-5, T-2		**16**	**22**

DEPT OF ENVIRONMENTAL, WATER RESOURCES AND COASTAL ENGINEERING

Total Credit Hours: 159.0

Level – 1, Term – I

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
CHEM 101	Fundamentals of Chemistry	Theory	3.0	3.0
MATH 101	Differential and Integral Calculus		3.0	3.0
EECE 167	Basic Electrical Technology		3.0	3.0
EWCE 101	Analytical Mechanics		3.0	3.0
EWCE 131	Ecology and Environmental Pollution		3.0	3.0
	Subtotal (Theory)		**15.00**	**15.00**
CHEM 102	Chemistry Sessional	Sessional	1.5	3.0
ME 142	Workshop Sessional		1.5	3.0
EWCE 100	Engineering Drawing and Computer Aided Design Sessional		1.5	3.0
	Subtotal (Sessional)		**4.5**	**9.0**
	Total = Credits: 19.5, Contact hours: 24.0			

Level – 1, Term – II

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
PHY 101	Waves and Oscillations, Optics and Modern Physics	Theory	3.0	3.0
MATH 103	Differential Equations and Matrix		3.0	3.0
GEBS 101	Bangladesh Studies		2.0	2.0
EWCE 103	Surveying		3.0	3.0
EWCE 105	Environmental Chemistry		3.0	3.0
	Subtotal (Theory)		**14.00**	**14.00**
PHY 102	Physics Sessional	Sessional	1.5	3.0
LANG 102	Communicative English-1		1.5	3.0
EWCE 104	Practical Surveying		1.5	3.0
	Subtotal (Sessional)		**4.5**	**9.0**
	Total = Credits: 18.5, Contact hours: 23.0			

Level – 2, Term – I

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
GELM 275	Leadership and Management	Theory	2.0	2.0
MATH 201	Vector Analysis, Laplace Transform & Co-ordinate Geometry		3.0	3.0
EWCE 201	Construction Materials		3.0	3.0
GES 201	Fundamentals of Sociology		2.0	2.0
EWCE 205	Numerical Methods		2.0	2.0
EWCE 211	Mechanics of Solids		4.0	4.0
	Subtotal (Theory)		**16.00**	**16.00**
CSE 278	Computer Programming and Computations Sessional	Sessional	1.5	3.0
LANG 202	Communicative English-II		1.5	3.0
EWCE 212	Structural Mechanics and Materials Sessional		1.5	3.0
	Subtotal (Sessional)		**4.5**	**9.0**
	Total = Credits: 20.50, Contact hours: 25.00			

Level – 2, Term – II

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
GEA 201/ GEE 201	Principles of Accounting/ Fundamentals of Economics	Theory	2.0	2.0
MATH 203	Applied Math for Engineering		3.0	3.0
EWCE 203	Geology and Geomorphology		3.0	3.0
EWCE 261	Fluid Mechanics		3.0	3.0
EWCE 263	Engineering Hydrology		-3.0	3.0
	Subtotal (Theory)		**14.00**	**14.00**
EWCE 200	Details of Construction & Quantity Surveying	Sessional	1.5	3.0
EWCE 206	GIS in Environmental and Water Resources Engineering		1.5	3.0
EWCE 262	Fluid Mechanics Sessional		1.5	3.0
	Subtotal (Sessional)		**4.5**	**9.0**
	Total = Credits: 18.50, Contact hours: 23.00			

Level- 3, Term - I

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
EWCE 311	Structure Analysis and Design I	Theory	3.0	3.0
CE 385	Design of Concrete Structures I		3.0	3.0
EWCE 331	Water Supply Engineering		3.0	3.0
EWCE 341	Principles of Soil Mechanics		3.0	3.0
EWCE 351	Transportation Engineering		4.0	4.0
	Subtotal (Theory)		**16.00**	**16.00**
EWCE 332	Environment EngineeringSessional	Sessional	1.5	3.0
EWCE 342	Soil Mechanics Sessional		1.5	3.0
EWCE 352	Transportation EngineeringSessional		1.5	3.0
	Subtotal (Sessional)		**4.5**	**9.0**
	Total = Credits: 20.50, Contact hours: 25.00			

Level - 3, Term - II

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
GEPM 375	Project Planning and Construction Management	Theory	3.0	3.0
CE 387	Design of Concrete Structure II		3.0	3.0
EWCE 333	Waste Water Engineering and Sanitation		4.0	4.0
EWCE 343	Geotechnicaland Foundation Engineering		3.0	3.0
EWCE 361	Open Channel Hydraulics		3.0	3.0
	Subtotal (Theory)		**16.00**	**16.00**
EWCE 300	Students' Internship Program (SIP)	Internship	1.0	2.0+
CE 386	Concrete Structure Design Sessional I	Sessional	1.5	3.0
EWCE 362	Open Channel Hydraulics Sessional		1.5	3.0
GERM 352	Fundamentals of Research Methodology		2.0	4.0
	Subtotal (Internship & Sessional)		**6.0**	**12.0**
	Total = Credits: 22.0, Contact hours: 28.00			

Level - 4, Term - I

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
GEEM 445	Engineering Ethics and Professional Practices	Theory	2.0	2.0
EWCE 411	Structural Analysis and Design II		3.0	3.0
EWCE 431	Environment and Social Impact Assessment		3.0	3.0
EWCE 461	River Engineering and Flood Management		3.0	3.0
EWCE 471	Coastal Engineering		3.0	3.0
	Subtotal (Theory)		**14.00**	**14.00**
EWCE 432	Environmental Engineering Design Sessional	Sessional	1.5	3.0
EWCE 462	Computer Applications in Water and Environmental Engineering		1.5	3.0
EWCE 464	Advanced GIS and RS in Environmental and Water Resources Engineering		1.5	3.0
EWCE 400	Final Year Research Project (FYP)	Project	2.0	4.0
	Subtotal (Sessional & Project)		**6.5**	**13.0**
	Total = Credits: 20.50, Contact hours: 27.00			

Level - 4, Term - II (Major: Environmental Engg)*

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
EWCE 467	Integrated Water Resource Management (IWRM)	Compulsory Theory	3.0	3.0
EWCE 433	Solid and Hazardous Waste Management	Major Theory	3.0	3.0
EWCE 435	Air Pollution and Control		2.0	2.0
EWCE 437	Industrial Waste and Waste Water Treatment		3.0	3.0
EWCE 469/ 473/ 475/ 477/ 479	Mathematical Modelling in Water Resources Engineering/ Waterway Engineering/ Urban Hydrology/ Climatology/Groundwater Engineering	Minor Theory	2.0	2.0
	Subtotal (Theory)		**13.00**	**13.00**
EWCE 400	Final Year Research Project (FYP)	Thesis	4.0	8.0
EWCE 434	Environmental Modelling Sessional	Sessional	1.5	3.0
EWCE 436/ 438	Treatment plant design sessional/ Building Service Sessional		1.5	3.0
	Subtotal (Sessional & Project)		**7.0**	**14.00**
	Total = Credits: 20.00, Contact hours: 27.00			

Level -4, Term-II ((Major: Water Resources Engg)**

Course No	Course Name	Type of Course	Credit Hour	Contact Hour
EWCE 467	Integrated Water Resource Management (IWRM)	Compulsory Theory	3.0	3.0
EWCE 463	Irrigation and Drainage Engineering	Major Theory	3.0	3.0
EWCE 465	Design of Hydraulic Structures		3.0	3.0
EWCE 477/ 479	Climatology / Groundwater Engineering		2.0	2.0
EWCE 435/ 439/481/ 483/485	Air Pollution and Control / Natural Resources & Renewable Energy/ Climate Change & Disaster Management/ Building Services/ Environmental Management System	Minor Theory	2.0	2.0
	Subtotal (Theory)		**13.00**	**13.00**
EWCE 400	Final Year Research Project (FYP)	Thesis	4.0	8.0
EWCE 466	Hydraulic Structure Design Sessional	Sessional	1.5	3.0
EWCE 468	Water Modelling Sessional		1.5	3.0
	Subtotal (Sessional & Project)		**7.0**	**14.0**
	Total = Credits: 20.00, Contact hours: 27.00			

DEPT OF PETROLEUM AND MINING ENGINEERING

Total Credit Hours: 160

LEVEL – 1, TERM – I

Course Code	Course Name	Contact hour/week	Credits
THEORY			
PHY 101	Physics	3.0	3.0
MATH 101	Differential and Integral Calculus	3.0	3.0
PME 111	Geology for Petroleum and Mining Engineers	3.0	3.0
PME 113	Introduction to Petroleum and Mining Engineering	3.0	3.0
SESSIONAL / LABORATORY			
PHY 102	Physics Sessional	3.0	1.5
ME 176	Workshop Practice	3.0	1.5
ME 180	Engineering Drawing and CAD	3.0	1.5
PME 112	Geology Laboratory	3.0	1.5
	Total:	**24.0**	**18.0**

Contact Hours= 12.0 (Theo) + 12.0 (Lab) = 24.0 hours/week
Total Credits = 18.0
No of Theory Courses = 4
No of Laboratory Courses = 4

LEVEL – 1, TERM – II

Course Code	Course Name	Contact hour/week	Credits
THEORY			
PME 121	Petroleum Engineering Thermodynamics	2.0	2.0
GES 101	Fundamentals of Sociology	2.0	2.0
GEBS 101	Bangladesh Studies	2.0	2.0
MATH 103	Differential Equations and Matrix	3.0	3.0
CHEM 119	Fundamentals of Chemistry	3.0	3.0
PME 123	Reservoir Rock and Fluid Properties	3.0	3.0
SESSIONAL/LABORATORY			
CHEM 102	Chemistry Sessional	3.0	1.5
PME 124	Reservoir Rock and Fluid Properties Laboratory	3.0	1.5
LANG 102	Communicative English -I	3.0	1.5
	Total:	**24.00**	**19.5**

Contact Hours= 16 (Theo) + 9.00 (Lab) = 24 hours/week
Total Credits = 19.5
No of Theory Courses = 6
No of Laboratory Courses = 3

LEVEL – 2, TERM – I

Course Code	Course Name	Contact hour/week	Credits
THEORY			
EECE 261	Fundamentals of Electrical and Electronic Engineering	3.0	3.0
MATH 201	Vector Analysis, Laplace Transformation & Co-ordinate Geometry	3.0	3.0
PME 211	Heat and Mass Transfer	2.0	2.0
CE 281	Engineering Mechanics	3.0	3.0
CE 283	Strength of Materials	3.0	3.0
PME 211	Rock Mechanics for Petroleum and Mining Engineers	3.0	3.0
SESSIONAL / LABORATORY			
LANG 202	Communicative English- II	3.0	1.5
EECE 262	Electrical and Electronic Engineering Laboratory	3.0	1.5
PME 212	Rock Mechanics Laboratory	3.0	1.5
PME 222	Drilling Fluid Laboratory	3.0	1.5
	Total:	**29.0**	**18.0**

Contact Hours: 17.0 (Theo) + 11.0 (Lab) = 28.0 hours/week
Total Credits = 22.5
No of Theory Courses = 6
No of Laboratory Courses = 4

LEVEL – 2, TERM – II

Course Code	Course Name	Contact hour/week	Credits
THEORY			
CSE 271	Introduction to Computer Programming	2.0	2.0
PME 213	Exploration Geophysics	2.0	2.0
ME 271	Fluid Mechanics	3.0	3.0
PME 231	Mining System	3.0	3.0
PME 233	Shaft sinking and Tunneling	3.0	3.0
GEEA 201	Fundamentals of Economics and Accounting	3.0	3.0
SESSIONAL / LABORATORY			
CSE 272	Computer Programming Sessional	1.5	0.75
PME 214	Exploration Geophysics Laboratory	3.0	1.5
PME 232	Mining System Laboratory	3.0	1.5
ME 272	Fluid Mechanics Laboratory	1.5	0.75
	Total:	**25.0**	**20.5**

Contact Hours: 16.0 (Theo) + 9.00 (Lab) = 25 hours/week
Total Credits = 20.5
No of Theory Courses = 6
No of Laboratory Courses = 4

LEVEL – 3, TERM – I

Course Code	Course Name	Contact hour/week	Credits
	THEORY		
PME 331	Mine Instrumentation and Machineries	3.0	3.0
PME 333	Ground Water Managements in Mining	2.0	2.0
PME 321	Well Logging and Formation Evaluation	3.0	3.0
PME 323	Drilling Engineering	3.0	3.0
GELM 375	Leadership and Management	2.0	2.0
	SESSIONAL / LABORATORY		
PME 332	Mine Instrumentation and Machineries Laboratory	3.0	1.5
PME 322	Well Logging and Formation Evaluation Laboratory	3.0	1.5
PME 324	Rig Floor Simulation Laboratory	3.0	1.5
GERM 352	Fundamentals of Research Methodology	4.0	2.0
	Total:	**26.0**	**19.5**

Contact Hours: 14.0 (Theo) + 13.0 (Lab) = 26.0 hours/week
Total Credits = 19.5
No of Theory Courses = 5
No of Laboratory Courses = 4

LEVEL – 3 (TERM – II)

Course Code	Course Name	Contact hour/week	Credits
	THEORY		
PME 325	Petroleum Production Engineering	3.0	3.0
PME 327	Natural Gas Processing and LNG Technology	3.0	3.0
PME 329	Reservoir Engineering	3.0	3.0
PME 335	Mine survey	3.0	3.0
GESL 317	Environment, Sustainability and Law	2.0	2.0
PME 337	Rock Blasting and Explosive Technology	3.0	3.0
	SESSIONAL / LABORATORY		
PME 328	Natural Gas Processing and LPG Laboratory	3.0	1.5
PME 336	Mine Survey Laboratory	3.0	1.5
PME 310	Industrial Training	4 weeks	1.0
	Total:	23.0+4 weeks	**21**

Contact Hours: 17.0 + (Theo) + 6.00 (Lab) = 23 hours/week + 4 weeks
Total Credits = 21.0
No of Theory Courses = 6
No of Laboratory Courses = 3

LEVEL – 4, TERM – I

Course Code	Course Name	Contact hour/week	Credits
	THEORY		
PME 421	Well Test Analysis	3.0	3.0
PME 423	Reservoir Modeling and Simulation	3.0	3.0
PME 431	Mine ventilation and Environmental Engineering	3.0	3.0
PME 425	Petroleum Refining and LPG Technology	3.0	3.0
GEEM 447	Engineering Ethics and Moral Philosophy	2.0	2.0
	SESSIONAL / LABORATORY		
PME 410	Research Project I	4.0	2.0
PME 424	Reservoir Modeling and Simulation Sessional	3.0	1.5
PME 432	Mine Ventilation and Environmental Engineering Laboratory	3.0	1.5
	Total:	**24.0**	**19.0**

Contact Hours: 14.0 (Theo) + 10.0 (Lab) = 24.0 hours/week
Total Credits = 19.0
No of Theory Courses = 5
No of Laboratory Courses = 3

LEVEL – 4 (TERM – II)

Course Code	Course Name	Contact hour/week	Credits
	THEORY		
GEPM 477	Project Management and Finance	3.0	3.0
PME 427	Transmission and Distribution of Natural Gas	3.0	3.0
PME 429	Enhanced Oil Recovery Techniques	2.0	2.0
PME 433	Mineral Processing	3.0	3.0
PME 435	Mine Planning and Design	3.0	3.0
	SESSIONAL / LABORATORY		
PME 410	Research Project II	8.0	4.0
PME 434	Minerals Processing Laboratory	3.0	1.5
	Total:	**25.0**	**19.5**

Contact Hours: 14.0 (Theo) + 11.0 (Lab) = 25.0 hours/week
Total Credits = 19.5
No of Theory Courses = 5
No of Laboratory Courses = 2

FACULTY OF ELECTRICAL AND COMPUTER ENGINEERING

DEPT OF COMPUTER SCIENCE AND ENGINEERING

Total Credit Hours: 160.0

Level-1, Term-I

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE -101	Discrete Mathematics	3.00		3.00
CHEM-101	Fundamentals of Chemistry	3.00	-	3.00
CHEM-102	Chemistry Sessional	-	3.00	1.50
EECE-163	Electrical Circuit Analysis	3.00	-	3.00
EECE-164	Electrical Circuit Analysis Sessional	-	1.50	0.75
GEBS-101	Bangladesh Studies	2.00	-	2.00
MATH-101	Differential and Integral Calculus	3.00	-	3.00
PHY-101	Waves and Oscillations, Optics and Modern Physics	3.00	-	3.00
PHY-102	Physics Sessional	-	3.00	1.50
	Total:	**17.00**	**7.50**	**20.75**
Total = Contact hours: 24.5; Credits : 20.75				

Level-1, Term-II

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-103	Digital Logic Design	3.00	-	3.00
CSE-104	Digital Logic Design Sessional	-	3.00	1.50
CSE-105	Structured Programming Language	3.00	-	3.00
CSE-106	Structured Programming Language Sessional	-	3.00	1.50
EECE-169	Electronic Devices and Circuits	3.00	-	3.00
EECE-170	Electronic Devices and Circuits Sessional	-	1.50	0.75
ENG-102	Communicative English-I	-	3.00	1.50
MATH-105	Vector Analysis, Matrix and Coordinate Geometry	3.00	-	3.00
ME-122	Fundamental of Mechanical Engineering Sessional	-	4.00	2.00
	Total:	**12.00**	**13.50**	**19.25**
Total = Contact hours: 25.5; Credits : 19.25				

Level-2, Term-I

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-203	Data Structures and Algorithms-I	3.00	-	3.00
CSE-204	Data Structures and Algorithms-I Sessional	-	3.00	1.50
CSE-205	Object Oriented Programming Language	3.00	-	3.00
CSE-206	Object Oriented Programming Language Sessional-I	-	3.00	1.50
CSE-217	Theory of Computation	3.00	-	3.00
EECE-269	Electrical Drives and Instrumentation	3.00	-	3.00
EECE-270	Electrical Drives and Instrumentation Sessional	-	1.50	0.75
ENG-202	Communicative English-II	-	3.00	1.50
MATH-205	Differential Equations, Laplace Transform and Fourier Transform	3.00	-	3.00
	Total:	**15.00**	**10.50**	**20.25**
Total = Contact hours: 25.5; Credits : 20.25				

Level –2, Term-II

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CE-250	Engineering Drawing and CAD Sessional	-	3.00	1.50
CSE-213	Computer Architecture	3.00	-	3.00
CSE-215	Data Structures and Algorithms-II	3.00	-	3.00
CSE-216	Data Structures and Algorithms-II Sessional	-	3.00	1.50
CSE-219	Mathematical Analysis for Computer Science	3.00	-	3.00
CSE-220	Object Oriented Programming Sessional-II	-	1.50	0.75
EECE-279	Digital Electronics and Pulse Technique	3.00	-	3.00
EECE-280	Digital Electronics and Pulse Technique Sessional	-	1.50	0.75
GELM-275	Leadership and Management	2.00	-	2.00
MATH-207	Complex Variable and Statistics	3.00	-	3.00
	Total:	**17.00**	**9.00**	**21.50**
Total = Contact hours: 26.0; Credits : 21.5				

Level-3, Term-I

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-301	Database Management Systems	3.00	-	3.00
CSE-302	Database Management Systems Sessional	-	3.00	1.50
CSE-303	Compiler	3.00	-	3.00
CSE-304	Compiler Sessional	-	1.50	0.75
CSE-305	Microprocessors, Micro-controllers and Assembly Language	3.00	-	3.00
CSE-306	Microprocessors, Micro-controllers and Assembly Language Sessional	-	3.00	1.50
CSE-307	Operating System	3.00	-	3.00
CSE-308	Operating System Sessional	-	1.50	0.75
CSE-317	Data Communication	3.00	-	3.00
CSE-318	Data Communication Sessional	-	1.50	0.75
	Total:	**15.00**	**10.50**	**20.25**
Total = Contact hours: 25.5; Credits : 20.25				

Level-3, Term II

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-309	Computer Network	3.00	-	3.00
CSE-310	Computer Network Sessional	-	3.00	1.50
CSE-315	Digital System Design	2.00	-	2.00
CSE-316	Digital System Design Sessional	-	1.50	0.75
CSE-319	Software Engineering	3.00	-	3.00
CSE-320	Software Engineering Sessional	-	1.50	0.75
CSE-364	Software Development Project - I	-	3.00	1.50
GERM-352	Fundamentals of Research Methodology	-	4.00	2.00
GES-301	Fundamentals of Sociology	2.00	-	2.00
GESL-303	Environment, Sustainability and Law	2.00	-	2.00
	Total:	**12.00**	**13.00**	**18.50**
Total = Contact hours: 25.0; Credits : 18.5				

*LEVEL-3 Industrial Training

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-350	Industrial Training	-	4 Weeks	1.00

*Note: This course is mandatory. Evaluation report from industry is to be submitted at the end of the training and accordingly to be incorporated in the tabulation sheet.

Level-4, Term-I

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-400	Final Year Research & Design Project	-	6.00	3.00
CSE-405	Computer Interfacing	3.00	-	3.00
CSE-406	Computer Interfacing Sessional	-	1.50	0.75
CSE-415	Human Computer Interaction	3.00	-	3.00
CSE-429	Computer Security	3.00	-	3.00
CSE-464	Software Development Project-II	-	3.00	1.50
CSE-4XO	Technical Elective-I	3.00	-	3.00
GEEM-433	Engineering Ethics and Moral Philosophy	2.00	-	2.00
	Total:	**14.00**	**10.50**	**19.25**
Total = Contact hours: 24.5; Credits : 19.25				

Technical Elective-I

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-407	Applied Statistics and Queuing Theory	3.00	-	3.00
CSE-417	Blockchaining and Cryptocurrency Technology	3.00	-	3.00
CSE-419	Advanced Algorithms	3.00	-	3.00
CSE-421	Basic Graph Theory	3.00	-	3.00
CSE-423	Fault Tolerance System	3.00	-	3.00
CSE-425	Basic Multimedia Theory	3.00	-	3.00
CSE-427	Digital Image Processing	3.00	-	3.00
CSE-431	Object Oriented Software Engineering	3.00	-	3.00
CSE-433	Artificial Neural Networks and Fuzzy Systems	3.00	-	3.00
CSE-435	Distributed Algorithms	3.00	-	3.00
CSE-437	Bioinformatics	3.00	-	3.00
CSE-439	Robotics	3.00	-	3.00
CSE-447	Telecommunication Engineering	3.00	-	3.00

Level-4, Term-II

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-400	Final Year Research & Design Project	-	6.00	3.00
CSE-401	Information System Design and Development	3.00	-	3.00
CSE-403	Artificial Intelligence	3.00	-	3.00
CSE-404	Artificial Intelligence Sessional	-	1.50	0.75
CSE-413	Computer Graphics	3.00	-	3.00
CSE-414	Computer Graphics Sessional	-	1.50	0.75
CSE-4XO	Technical Elective-II	3.00	-	3.00
CSE-4XE	Technical Elective-II Sessional	-	1.50	0.75
GEPM-463	Project Management and Finance	2.00	-	2.00
	Total:	**14.00**	**10.50**	**19.25**
Total = Contact hours: 24.5; Credits : 19.25				

Technical Elective-II

Course Code	Course Name	Contact Hour/ Week		Credits
		Theory	Sessional	
CSE-411	VLSI Design	3.00	-	3.00
CSE-412	VLSI Design Sessional	-	1.50	0.75
CSE-441	Machine Learning	3.00	-	3.00
CSE-442	Machine Learning Sessional	-	1.50	0.75
CSE-443	Pattern Recognition	3.00	-	3.00
CSE-444	Pattern Recognition Sessional	-	1.50	0.75
CSE-445	Digital Signal Processing	3.00	-	3.00
CSE-446	Digital Signal Processing Sessional	-	1.50	0.75
CSE-449	Mobile and Ubiquitous Computing	3.00	-	3.00
CSE-450	Mobile and Ubiquitous Computing Sessional	-	1.50	0.75
CSE- 451	Simulation and Modeling	3.00	-	3.00
CSE- 452	Simulation and Modeling Sessional	-	1.50	0.75
CSE-455	Natural Language Processing	3.00	-	3.00
CSE-456	Natural Language Processing Sessional	-	1.50	0.75
CSE-457	Advanced Database Management Systems	3.00	-	3.00
CSE-458	Advanced Database Management Systems Sessional	-	1.50	0.75
CSE-459	Internet of Things (IoT)	3.00	-	3.00
CSE-460	Internet of Things (IoT) Sessional	-	1.50	0.75
CSE-461	Industrial Revolution	3.00	-	3.00
CSE-462	Industrial Revolution Sessional	-	1.50	0.75
CSE-465	Cyber & Physical Security	3.00	-	3.00
CSE-466	Cyber & Physical Security Sessional	-	1.50	0.75

DEPT OF ELECTRICAL, ELECTRONIC AND COMMUNICATION ENGINEERING

Total Credit Hours: 160

Level–1, Term-I

Course Code	Course Name	Type of Course	Contact Hour	Credits
EECE 101	Electrical Circuits I	Theory	3.0	3.0
PHY 101	Waves & Oscillation, Optics and Modern Physics	Theory	3.0	3.0
MATH 101	Differential and Integral Calculus	Theory	3.0	3.0
CHEM 101	Fundamentals of Chemistry	Theory	3.0	3.0
GEBS 101	Bangladesh Studies	Theory	2.0	2.0
	Subtotal (Theory)		**14.0**	**14.0**
EECE 102	Electrical Circuits and Simulation Laboratory I	Sessional	3.0	1.5
PHY 102	Physics Sessional	Sessional	3.0	1.5
CHEM 102	Chemistry Sessional		3.0	1.5
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 23.0; Credits : 18.5			

Level–1, Term-II

Course Code	Course Name	Type of Course	Contact Hour	Credits
EECE 105	Electrical Circuits II	Theory	3.0	3.0
PHY 103	Electricity & Magnetism, Thermal Physics, Quantum Mechanics & Photonics	Theory	3.0	3.0
MATH 105	Vector analysis, Matrices and Coordinate Geometry	Theory	3.0	3.0
CSE 109	Computer Programming	Theory	3.0	3.0
GES 101	Fundamentals of Sociology	Theory	3.0	3.0
	Subtotal (Theory)		**14.0**	**14.0**
EECE 106	Electrical Circuits and Simulation Laboratory II	Sessional	3.0	1.50
CSE 110	Computer Programming Laboratory	Sessional	3.0	1.50
LANG 102	Communicative English I	Sessional	3.0	1.50
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 23.0; Credits: 18.5			

Level–2, Term-I

Course Code	Course Name	Type of Course	Contact Hour	Credits
EECE 201	Electronics-I	Theory	3.0	3.0
EECE 203	Electrical Machines-I/ Energy Conversion-I	Theory	3.0	3.0
ME 283	Fundamental of Mechanical Engineering	Theory	3.0	3.0
MATH 205	Differential Equation, Laplace Transform and Fourier Transform	Theory	3.0	3.0
GEE 201	Fundamentals of Economic s	Theory	2.0	2.0
	Subtotal (Theory)		**14.0**	**14.0**
EECE 202	Electronics Circuit and Simulation Laboratory	Sessional	3.0	1.5
EECE 212	Numerical Technique Laboratory	Sessional	3.0	1.5
ME 284	Fundamental of Mechanical Engineering Laboratory	Sessional	3.0	1.5
LANG 202	Communicative English II	Sessional	3.0	1.5
	Subtotal (Sessional)		**12.0**	**6.0**
	Total = Contact hours: 26.0; Credits: 20.0			

Level–2, Term-II

Course Code	Course Name	Type of course	Contact hour	Credits
EECE 205	Electrical Machines-II/ Energy Conversion-II	Theory	3.0	3.0
EECE 207	Electronics II	Theory	3.0	3.0
EECE 217	Engineering Electromagnetic	Theory	3.0	3.0
MATH 213	Complex Variable, Harmonic Function and Statistics	Theory	3.0	3.0
GELM 275	Leadership and Management	Theory	2.0	2.0
	Subtotal (Theory)		**14.0**	**14.0**
EECE 206	Electrical Machines Laboratory/ Energy Conversion Laboratory	Sessional	3.0	1.5
EECE 208	Electronics Circuit and Simulation Laboratory II	Sessional	3.0	1.5
EECE 222	Electrical Service Design and CAD Laboratory	Sessional	4.0	2.0
	Subtotal (Sessional)		**10.0**	**5.0**
	Total = Contact hours: 24.0; Credits: 19.0			

Level-3, Term-I

Course Code	Course Name	Type of course	Contact Hour	Credits
EECE 301	Continuous Signals and Linear Systems	Theory	3.0	3.0
EECE 303	Digital Electronics	Theory	3.0	3.0
EECE 305	Power System I	Theory	3.0	3.0
EECE 313	Electrical Measurement, Instrumentation and Sensors	Theory	3.0	3.0
EECE 315	Electrical Properties of Material	Theory	3.0	3.0
GESL 305	Environment, Sustainability and Law	Theory	2.0	2.0
	Subtotal (Theory)		**17.0**	**17.0**
EECE 304	Digital Electronics Laboratory	Sessional	3.00	1.50
EECE 306	Power System I Laboratory	Sessional	3.00	1.50
EECE 314	Electrical Measurement, Instrumentation and Sensors Lab	Sessional	3.00	1.50
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours : 26.0 ; Credits : 21.5			

Level-3, Term-II

Course Code	Course Name	Type of course	Contact hour	Credits
EECE 309	Communication Theory I	Theory	3.0	3.0
EECE 311	Digital Signal Processing I	Theory	3.0	3.0
EECE 317	VLSI I	Theory	3.0	3.0
CSE 371	Microprocessors and Interfacing	Theory	3.0	3.0
Subtotal (Theory)			**12.0**	**12.0**
GERM 352	Fundamentals of Research Methodology	Sessional	4.0	2.0
EECE 310	Communication Theory I Laboratory	Sessional	3.0	1.5
EECE 312	Digital Signal Processing I Laboratory	Sessional	3.0	1.5
EECE 318	VLSI I Laboratory	Sessional	3.0	1.5
CSE 372	Microprocessors and Interfacing Laboratory	Sessional	3.0	1.0
EECE 330	Industrial Training	Sessional	1.0	1.0
Subtotal (Sessional)			**16.0+1.0 (6 weeks)**	**9.0**
Total = Contact hours : 29.0; Credits: 21.0				

EECE 330 (Industrial Training/attachment) will be conducted at any convenient time after the term end exam of Fall Term (Jul-Dec) for a duration of 6 weeks as applicable or decided by the department.

Level-4, Term-I

Course No	Course Name	Type of Course	Contact hour	Credits
EECE 401	Control System I	Theory	3.0	3.0
EECE 405	Solid State Devices	Theory	3.0	3.0
EECE 473	Power Electronics	Theory	3.0	3.0
EECE 4**	Elective I	Theory	3.0	3.0
EECE 4 **	Elective II	Theory	3.0	3.0
Subtotal (Theory)			**15.0**	**15.0**
EECE 400	Final Year Design and Research Project		6.0	3.0
EECE 402	Control System I Laboratory	Sessional	3.0	1.5
EECE 474	Power Electronics Laboratory	Sessional	3.0	1.5
Subtotal (Sessional)			**12.0**	**6.0**
Total = Contact hours : 27.0; Credits : 21.0				

Level-4, Term-II

Course No	Course Name	Type of course	Contact hour	Credits
EECE 409	Communication Theory II	Theory	3.0	3.0
GEEM 435	Engineering Ethics and Moral Philosophy	Theory	2.0	2.0
GEPM 465	Project Management and Finance	Theory	2.0	2.0
EECE 4 **	Elective III	Theory	3.0	3.0
EECE 4 **	Elective IV	Theory	3.0	3.0
EECE 4 **	Elective V	Theory	3.0	3.0
Subtotal (Theory)			**16.0**	**16.0**
EECE 400	Final Year Design and Research Project		6.00	3.00
EECE 4 **	Elective III Laboratory	Sessional	3.0	1.5
Subtotal (Sessional)			**9.0**	**4.5**
Total = Contact hours : 25.0 ; Credits: 20.5				

List of Elective Courses

Power

Ser. No.	Course Code	Course Name	Level	Contact Hour	Credits
1	EECE 471	Power System II	4-I/ 4-II	3.0	3.0
2	EECE 475	Power Plant Engineering	4-I/ 4-II	3.0	3.0
3	EECE 477	Power System Protection	4-I/ 4-II	3.0	3.0
4	EECE 478	Power System Protection Laboratory	4-II	3.0	1.5
5	EECE 483	High Voltage Engineering	4-I/ 4-II	3.0	3.0
6	EECE 484	High Voltage Engineering Laboratory	4-II	3.0	1.5
7	EECE 479	Power System Reliability	4-I/ 4-II	3.0	3.0
8	EECE 481	Power System Operation and Control	4-I/ 4-II	3.0	3.0
9	EECE 485	Electrical Machines III / Energy Conversion III	4-I/ 4-II	3.0	3.0

Electronics

Ser. No.	Course Code	Course Name	Level	Contact Hour	Credits
1	EECE 451	Processing and Fabrication Technology	4-I/ 4-II	3.0	3.0
2	EECE 453	Analog Integrated Circuits	4-I/ 4-II	3.0	3.0
3	EECE 455	Compound Semiconductor and Hetero-junction Devices	4-I/ 4-II	3.0	3.0
4	EECE 457	VLSI II	4-I/ 4-II	3.0	3.0
5	EECE 458	VLSI II Laboratory	4-II	3.0	1.5
6	EECE 459	Optoelectronics	4-I/ 4-II	3.0	3.0
7	EECE 461	Semiconductor Device Theory	4-I/ 4-II	3.0	3.0
8	EECE 463	Introduction to Nanotechnology	4-I/ 4-II	3.0	3.0
9	EECE 465	Semiconductor and Nano-scale Devices	4-I/ 4-II	3.0	3.0

Communication

Ser. No.	Course Code	Course Name	Level	Contact Hour	Credits
1	EECE 403	Telecommunicati on Engineering	4-I/ 4-II	3.0	3.0
2	EECE 433	Microwave Engineering	4-I/ 4-II	3.0	3.0
3	EECE 434	Microwave Engineering Laboratory	4-II	3.0	1.5
4	EECE 435	Optical Fiber Communication	4-I/ 4-II	3.0	3.0
5	EECE 437	Digital Communication	4-I/ 4-II	3.0	3.0
6	EECE 438	Digital Communication Laboratory	4-II	3.0	1.5
7	EECE 439	Mobile Cellular Communication	4-I/ 4-II	3.0	3.0
8	EECE 441	Random Signals and Processes	4-I/ 4-II	3.0	3.0
9	EECE 443	Satellite Communication	4-I/ 4-II	3.0	3.0
10	EECE 444	Satellite Communication Laboratory	4-II	3.0	1.5
11	EECE 445	Communications Network	4-I/ 4-II	3.0	3.0
12	EECE 446	Communications Network Laboratory	4-II	3.0	1.5

Interdisciplinary

Ser. No.	Course Number	Course Name	Level	Contact Hour	Credits
1	EECE 421	Control System II	4-I/ 4-II	3.0	3.0
2	EECE 422	Control System II Laboratory	4-II	3.0	1.5
3	EECE 423	Numerical Methods	4-I/ 4-II	3.0	3.0
4	EECE 424	Numerical Methods Laboratory	4-II	3.0	1.5
5	EECE 425	Biomedical Instrumentation	4-I/ 4-II	3.0	3.0
6	EECE 426	Biomedical Instrumentation Laboratory	4-II	3.0	1.5
7	EECE 429	Radar Engineering	4-I/ 4-II	3.0	3.0
8	EECE 430	Radar Engineering Laboratory	4-II	3.0	1.5
9	EECE 491	Sonar and Underwater Engineering	4-I/ 4-II	3.0	3.0
10	EECE 492	Sonar and Underwater Engineering Laboratory	4-II	3.0	1.5
11	EECE 493	Electronics Warfare	4-I/ 4-II	3.0	3.0
12	EECE 494	Electronics Warfare Laboratory	4-II	3.0	1.5
13	EECE 495	Avionics Engineering	4-I/ 4-II	3.0	3.0
14	EECE 496	Avionics Engineering Laboratory	4-II	3.0	1.5
15	EECE 497	Biomedical Signal Processing	4-I/ 4-II	3.0	3.0
16	EECE 498	Biomedical Signal Processing Laboratory	4-II	3.0	1.5
17	CSE 491	Microprocessor System Design	4-I/ 4-II	3.0	3.0
18	CSE 492	Microprocessor System Design Laboratory	4-II	3.0	1.5

FACULTY OF MECHANICAL ENGINEERING

DEPT OF MECHANICAL ENGINEERING

Total Credit Hours: 160

LEVEL-1, TERM-I

Course Code	Course Name	Type of Course	Contact hours	Credits
ME 161	Introduction to Mechanical Engineering	Theory	2.0	2.0
ME 103	Thermodynamics	Theory	3.0	3.0
EECE 159	Fundamentals of Electrical Engineering	Theory	3.0	3.0
PHY 101	Waves and Oscillations, Optics and Modern Physics	Theory	3.0	3.0
MATH 101	Differential and Integral Calculus	Theory	3.0	3.0
GEBS 101	Bangladesh Studies	Theory	2.0	2.0
	Subtotal (Theory)		**16.0**	**16.0**
PHY 102	Physics Sessional	Sessional	3.0	1.50
ME 104	Thermodynamics Sessional	Sessional	3.0	1.5
SHOP 162	Workshop Practice Sessional	Sessional	3.0	1.5
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 25.0; Credits: 20.5			

LEVEL-1, TERM-II

Course Code	Course Name	Type of Course	Contact hours	Credits
ME 193	Engineering Materials	Theory	3.0	3.0
CHEM 101	Fundamentals of Chemistry	Theory	3.0	3.0
MATH 103	Differential Equations and Matrix	Theory	3.0	3.0
EECE 173	Electrical and Electronics Technology	Theory	3.0	3.0
	Subtotal (Theory)		**12.0**	**12.0**
CHEM 102	Chemistry Sessional	Sessional	3.0	1.5
LANG 102	Communicative English I	Sessional	3.0	1.5
ME 194	Engineering Materials Sessional	Sessional	3.0	1.5
EECE 174	Electrical and Electronics Technology Sessional	Sessional	3.0	1.5
	Subtotal (Sessional)		**12.0**	**6.0**
	Total = Contact hours: 24.0; Credits:18.0			

LEVEL-2, TERM-I

Course Code	Course Name	Type of Course	Contact hours	Credits
CSE 275	Computer Programming Language	Theory	3.0	3.00
ME 245	Engineering Mechanics-I	Theory	3.0	3.00
MATH 201	Vector Analysis, Laplace Transform& Co-ordinate Geometry	Theory	3.0	3.00
ME 205	Heat and Mass Transfer	Theory	3.0	3.00
	Subtotal (Theory)		**12.0**	**12.0**
CSE 276	Computer Programming Language Sessional	Sessional	3.0	1.5
ME 258	Mechanical Engineering Drawing –I	Sessional	3.0	1.5
ME 206	Heat and Mass Transfer Sessional	Sessional	3.0	1.5
LANG 202	Communicative English II	Sessional	3.0	1.5
	Subtotal (Sessional)		**12.0**	**6.0**
	Total = Contact hours: 24.0; Credits: 18.0			

LEVEL-2, TERM-II

Course Code	Course Name	Type of Course	Contact hours	Credits
ME 247	Engineering Mechanics - II	Theory	3.0	3.0
ME 233	Manufacturing Technology	Theory	3.0	3.0
ME 207	Heat Transfer Equipment Design	Theory	3.0	3.0
ME 263	Numerical Analysis	Theory	3.0	3.0
MATH 215	Complex Variable, Harmonic Function and Fourier Analysis	Theory	3.0	3.0
GELM 275	Leadership and Management	Theory	2.0	2.0
	Subtotal (Theory)		**17.0**	**17.0**
ME 234	Manufacturing Technology Sessional	Sessional	3.0	1.5
ME 264	Numerical Analysis Sessional	Sessional	3.0	1.5
ME 260	Mechanical Engineering Drawing –II	Sessional	3.0	1.5
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 26.0; Credits: 21.5			

LEVEL-3, TERM-I

Course Code	Course Name	Type of Course	Contact hours	Credits
ME 361	Instrumentation and Measurement	Theory	2.0	2.0
ME 343	Mechanics of Solids	Theory	3.0	3.0
ME 375	Control Engineering	Theory	2.0	2.0
ME 303	Power plant Engineering	Theory	3.0	3.0
ME 321	Fluid Mechanics-I	Theory	3.0	3.0
GEE 305	Fundamentals of Economics	Theory	2.0	2.0
	Subtotal (Theory)		**15.0**	**15.0**
ME 344	Mechanics of Solids Sessional	Sessional	3.0	1.5
ME 376	Control Engineering Sessional	Sessional	3.0	1.5
ME 304	Power plant Engineering Sessional	Sessional	3.0	1.5
GERM 352	Fundamentals of Research Methodology	Sessional	4.0	2.0
	Subtotal (Sessional)		**13.0**	**6.5**
	Total = Contact hours: 28.0; Credits: 21.5			

LEVEL-3, TERM-II

Course Code	Course Name	Type of Course	Contact hours	Credits
GES 307	Fundamentals of Sociology	Theory	2.0	2.0
ME 345	Mechanics of Machinery	Theory	3.0	3.0
ME 323	Fluid Mechanics-II	Theory	2.0	2.0
ME 341	Machine Design	Theory	3.0	3.0
ME 367	Automobile Engineering	Theory	3.0	3.0
	Subtotal (Theory)		**15.0**	**15.0**
ME 324	Fluid Mechanics Sessional	Sessional	3.0	1.5
ME 346	Mechanics of Machinery Sessional	Sessional	3.0	1.5
ME 368	Automobile Engineering Sessional	Sessional	3.0	1.5
ME 366	Engineering Simulation	Sessional	2.0	1.0
ME 372*	Industrial Training	Training	4 weeks	1.0
	Subtotal (Sessional)		**11.0 + 4 weeks**	**6.5**
	Total = Contact hours: 24.0 + 4 weeks; Credits: 19.5			

* Will be conducted after the completion of Level- 3, at any convenient time as can be arranged by the Department.

LEVEL- 4, TERM-I

Course Code	Course Name	Type of Course	Contact hours	Credits
GEPM 467	Project Management & Finance	Theory	2.0	2.0
ME 421	Fluid Machinery	Theory	3.0	3.0
ME 401	IC Engine	Theory	2.0	2.0
ME 405	Heating, Ventilation and Air conditioning	Theory	3.0	3.0
Optional I1	Selected from prescribed optional subjects	Theory	3.0	3.0
Optional II1	Selected from prescribed optional subjects		3.0	3.0
		Subtotal (Theory)	**17.0**	**17.0**
ME 402	IC Engine Sessional	Sessional	3.0	1.5
ME 400	Final Year Design and Research Project - I	Sessional	6.0	3.0
		Subtotal (Sessional)	**9.0**	**4.5**
		Total = Contact hours: 26.0; Credits: 21.5		

LEVEL- 4, TERM – II

Course Code	Course Name	Type of Course	Contact hours	Credits
ME 445	Noise and vibration	Theory	3.0	3.0
GESL 407	Environment, Sustainability and Law	Theory	2.0	2.0
GEEM 437	Engineering Ethics & Moral Philosophy	Theory	2.0	2.0
IPE 463	CAD/CAM	Theory	2.0	2.0
Optional III2	Selected from prescribed optional subjects	Theory	3.0	3.0
Optional IV2	Selected from prescribed optional subjects		3.0	3.0
		Subtotal (Theory)	**15.0**	**15.0**
ME 464	CAD/CAM Simulation sessional	Sessional	3.0	1.5
ME 400	Final Year Design and Research Project - II	Sessional	6.0	3.0
		Subtotal (Sessional)	**9.0**	**4.5**
		Total = Contact hours: 24.0; Credits: 19.5		

AERONAUTICAL ENGINEERING

Total Credit Hours: Aerospace 160.00 & Avionics 160.00

LEVEL-1, TERM-I (Aerospace & Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
PHY 101	Waves and Oscillations, Optics and Modern Physics	Theory	3.0	3.0
EECE 161	Electrical Circuit Analysis-I	Theory	3.0	3.0
MATH 101	Differential and Integral Calculus	Theory	3.0	3.0
AEAS 103	Fundamentals of Aeronautical Engineering	Theory	3.0	3.0
GEBS 101	Bangladesh Studies	Theory	2.0	2.0
		Subtotal (Theory)	**14.0**	**14.0**
PHY 102	Physics Sessional	Sessional	3.0	1.5
EECE 162	Electrical Circuit Analysis-I Sessional	Sessional	3.0	1.5
SHOP 108	Workshop Technology Sessional –I	Sessional	1.5	0.75
AEAS 110	Aeronautical Engineering Drawing-I	Sessional	3.0	1.5
		Subtotal (Sessional)	**10.5**	**5.25**
		Total = Contact hours: 24.5; Credits: 19.25		

LEVEL 1, TERM-II (Aerospace and Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
PHY 111	Electricity and Magnetism, Thermal Physics and Mechanics	Theory	3.0	3.0
CHEM 101	Fundamentals of Chemistry	Theory	3.0	3.0
MATH 103	Differential Equations and Matrix	Theory	3.0	3.0
CSE 173	Computer Programming and Application	Theory	3.0	3.0
GEA 101	Principles of Accounting	Theory	2.0	2.0
GES 101	Fundamentals of Sociology	Theory	2.0	2.0
		Subtotal (Theory)	**16.0**	**16.0**
CHEM 102	Chemistry Sessional	Sessional	3.0	1.5
LANG 102	Communicative English-I	Sessional	3.0	1.5
CSE 174	Computer Programming and Application Sessional	Sessional	3.0	1.5
SHOP 112	Workshop Technology Sessional –II	Sessional	1.5	0.75
		Subtotal (Sessional)	**10.5**	**5.25**
		Total = Contact hours: 26.5; Credits: 21.25		

LEVEL-2, TERM-I (Aerospace)

Course Code	Course Name	Type of Course	Contact Hour	Credits
ME 249	Engineering Mechanics (Statics and Dynamics)	Theory	4.0	4.0
AEAV 205	Numerical Analysis and Application	Theory	3.0	3.0
AEAV 203	Electronics-I	Theory	3.0	3.0
MATH 201	Vector Analysis, Laplace Transform and Co-ordinate Geometry	Theory	3.0	3.0
GEE 201	Fundamentals of Economics	Theory	2.0	2.0
		Subtotal (Theory)	**15.0**	**15.0**
AEAV 206	Numerical Analysis and Application Sessional	Sessional	3.0	1.5
AEAV 204	Electronics-I Sessional	Sessional	1.5	0.75
LANG 202	Communicative English-II	Sessional	3.0	1.5
		Subtotal (Sessional)	**7.5**	**3.75**
		Total = Contact hours: 22.5; Credits: 18.75		

LEVEL-2, TERM-I (Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAV 203	Electronics-I	Theory	3.0	3.0
AEAV 201	Electrical Circuit Analysis- II	Theory	3.0	3.0
AEAV 205	Numerical Analysis and Applications	Theory	3.0	3.0
ME 249	Engineering Mechanics (Statics and Dynamics)	Theory	4.0	4.0
MATH 201	Vector Analysis, Laplace Transform and Coordinate Geometry	Theory	3.0	3.0
GEE 201	Fundamentals of Economics	Theory	2.0	2.0
		Subtotal (Theory)	**18.0**	**18.0**
AEAV 202	Electrical Circuit Analysis- II Sessional	Sessional	3.0	1.5
AEAV 226	Numerical Analysis and Applications Sessional	Sessional	1.5	0.75
LANG 202	Communicative English-II	Sessional	3.0	1.5
		Subtotal (Sessional)	**7.5**	**3.75**
		Total = Contact hours: 25.5; Credits: 21.75		

LEVEL-2, TERM-II (Aerospace)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAS 203	Fundamentals of Fluid Mechanics	Theory	3.0	3.0
AEAS 205	Mechanics of Solids	Theory	3.0	3.0
AEAS 207	Thermodynamics	Theory	3.0	3.0
AEAS 215	Aircraft Aerospace Systems	Theory	3.0	3.0
GELM 275	Leadership and Management	Theory	2.0	2.0
MATH 217	Complex Variable, Fourier Analysis and Statistics	Theory	4.0	4.0
		Subtotal (Theory)	**18.0**	**18.0**
AEAS 206	Mechanics of Solids Sessional	Sessional	3.0	1.5
AEAS 204	Fundamentals of Fluid Mechanics Sessional	Sessional	1.5	0.75
AEAS 208	Thermodynamics Sessional	Sessional	1.5	0.75
AEAS 210	Aeronautical Engineering Drawing-II	Sessional	3.0	1.5
		Subtotal (Sessional)	**9.0**	**4.5**
		Total = Contact hours: 27.0; Credits: 22.5		

LEVEL-3, TERM-I (Aerospace)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAS 301	Heat Transfer	Theory	3.0	3.0
AEAS 335	Applied Aerodynamics	Theory	3.0	3.0
AEAS 3XX	Elective I	Theory	3.0	3.0
AEAS 307	Aircraft Loading & Structure Analysis	Theory	3.0	3.0
AEAS 331	Material Science & Aerospace Materials	Theory	3.0	3.0
GEEM 339	Engineering Ethics and Moral Philosophy	Theory	2.0	2.0
		Subtotal (Theory)	**17.0**	**17.0**
AEAS 336	Applied Aerodynamics Sessional	Sessional	1.5	0.75
AEAS 338	Aerospace Propulsion Sessional	Sessional	1.5	0.75
AEAS 322	Heat Transfer Sessional	Sessional	3.0	1.5
AEAS 332	Material Science & Aerospace Materials Sessional	Sessional	1.5	0.75
		Subtotal (Sessional)	**7.5**	**3.75**
		Total = Contact hours: 24.5; Credits: 20.75		

LEVEL-2, TERM-II (Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAV 215	Electronics-II	Theory	3.0	3.0
AEAV 217	Aircraft Electrical System	Theory	3.0	3.0
AEAS 203	Fundamentals of Fluid Mechanics	Theory	3.0	3.0
AEAS 207	Thermodynamics	Theory	3.0	3.0
GELM 275	Leadership and Management	Theory	2.0	2.0
MATH 217	Complex Variable, Fourier Analysis and Statistics	Theory	4.0	4.0
		Subtotal (Theory)	**18.0**	**18.0**
AEAV 216	Electronics-II Sessional	Sessional	3.0	1.5
AEAV 218	Aircraft Electrical System Sessional	Sessional	1.5	0.75
AEAS 208	Thermodynamics Sessional	Sessional	1.5	0.75
AEAS 210	Aeronautical Engineering Drawing-II	Sessional	3.0	1.5
		Subtotal (Sessional)	**9.0**	**4.5**
		Total = Contact hours: 27.0; Credits: 22.5		

LEVEL- 3, TERM – I (Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAV 301	Digital Systems	Theory	3.0	3.0
AEAV 303	Signals and Systems	Theory	3.0	3.0
AEAS 3XX	Elective I	Theory	3.0	3.0
AEAV 309	Aircraft Avionics Systems	Theory	3.0	3.0
AEAS 335	Applied Aerodynamics	Theory	3.0	3.0
GEEM 339	Engineering Ethics and Moral Philosophy	Theory	2.0	2.0
		Subtotal (Theory)	**17.0**	**17.0**
AEAV 302	Digital Systems Sessional	Sessional	3.0	1.5
AEAS 338	Aerospace Propulsion Sessional	Sessional	1.5	0.75
AEAS 336	Applied Aerodynamics Sessional	Sessional	1.5	0.75
		Subtotal (Sessional)	**6.0**	**3.0**
		Total = Contact hours: 23.0; Credits: 20.0		

LEVEL-3, TERM-II (Aerospace)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAS 315	Aircraft Stability and Control	Theory	3.0	3.0
AEAS 317	Mechanics of Structures, Structural Vibration and Aero Elasticity	Theory	4.0	4.0
AEAS 319	Machine Design	Theory	3.0	3.0
AEAV 3XX	Elective II	Theory	3.0	3.0
AEAS 325	Computational Fluid Dynamics	Theory	3.0	3.0
	Subtotal (Theory)		**16.0**	**16.0**
AE 300	Industrial Training	Sessional	8 weeks	1.0
AEAV 330	Measurement and Aircraft Instruments Sessional	Sessional	1.5	0.75
AEAS 326	Computational Fluid Dynamics Sessional	Sessional	1.5	0.75
GERM 352	Fundamentals of Research Methodology	Sessional	4.0	2.0
	Subtotal (Sessional)		**7.0+8 weeks**	**4.5**
	Total = Contact hours: 23.0+8 weeks; Credits: 20.5			

LEVEL-3, TERM – II (Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAV 305	Communication Engineering	Theory	3.0	3.0
AEAV 307	Electro-Magnetic Field Theory	Theory	3.0	3.0
AEAV 313	Digital Signal Processing	Theory	3.0	3.0
AEAV 3XX	Elective II	Theory	3.0	3.0
AEAS 315	Aircraft Stability and Control	Theory	3.0	3.0
	Subtotal (Theory)		**15.0**	**15.0**
AE 300	Industrial Training	Sessional	8 weeks	1.0
AEAV 306	Communication Engineering Sessional	Sessional	1.5	0.75
AEAV 324	Digital Signal Processing Sessional	Sessional	1.5	0.75
AEAV 330	Measurement and Aircraft Instruments Sessional	Sessional	1.5	0.75
GERM 352	Fundamentals of Research Methodology	Sessional	4.0	2.0
	Subtotal (Sessional)		**8.5+8 weeks**	**5.25**
	Total = Contact hours: 23.5+8 weeks; Credits: 20.25			

Note: List of AEAV 3XX is given in para 4.5 & 4.6

LEVEL-4, TERM-I (Aerospace)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAS 437	Aerospace Vehicle Design	Theory	3.0	3.0
AEAS 439	Rotor-dynamics and Aircraft Performance	Theory	3.0	3.0
AEAS 447	Space Engineering	Theory	3.0	3.0
GESL 409	Environment Sustainability and Law	Theory	2.0	2.0
AEAS 4XX	Elective III	Theory	3.0	3.0
	Subtotal (Theory)		**14.0**	**14.0**
AEAS 400	Final Year Design and Research Project	Sessional	6.0	3.0
AEAS 438	Aerospace Vehicle Design Sessional	Sessional	3.0	1.5
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 23.0; Credits: 18.5			

LEVEL-4, TERM – I (Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAV 401	Microwave Engineering	Theory	3.0	3.0
AEAV 407	Radar Engineering	Theory	3.0	3.0
AEAS 447	Space Engineering	Theory	3.0	3.0
GESL 409	Environment Sustainability and Law	Theory	2.0	2.0
AEAS 4XX	Elective III	Theory	3.0	3.0
	Subtotal (Theory)		**14.0**	**14.0**
AEAV 400	Final Year Design and Research Project	Sessional	6.0	3.0
AEAV 408	Radar Engineering Sessional	Sessional	1.5	0.75
AEAV 442	Microwave Engineering Sessional	Sessional	1.5	0.75
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 23.0; Credits: 18.5			

LEVEL-4, TERM-II (Aerospace)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAS 407	Turbo Machinery	Theory	3.0	3.0
AEAV 411	Control Systems Engineering	Theory	3.0	3.0
AEAS 413	High Speed Aerodynamics	Theory	3.0	3.0
GEPM 469	Project Management and Finance	Theory	2.0	2.0
AEAS 4XX	Elective IV	Theory	3.0	3.0
	Subtotal (Theory)		**14.0**	**14.0**
AEAS 400	Final Year Design and Research Project	Sessional	6.0	3.0
AEAS 408	Turbo Machinery Sessional	Sessional	1.5	0.75
AEAV 412	Control Systems Engineering Sessional	Sessional	1.5	0.75
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 23.0; Credits: 18.5			

LEVEL- 4, TERM – II (Avionics)

Course Code	Course Name	Type of Course	Contact Hour	Credits
AEAV 411	Control Systems Engineering	Theory	3.0	3.0
AEAV 443	Aircraft Communication and Navigation	Theory	4.0	4.0
GEPM 469	Project Management and Finance	Theory	2.0	2.0
AEAS 4XX	Elective IV	Theory	3.0	3.0
	Subtotal (Theory)		**12.0**	**12.0**
AEAV 400	Final Year Design and Research Project	Sessional	6.0	3.0
AEAV 412	Control Systems Engineering Sessional	Sessional	1.5	0.75
AEAV 444	Aircraft Communication and Navigation Sessional	Sessional	1.5	0.75
	Subtotal (Sessional)		**9.0**	**4.5**
	Total = Contact hours: 21.0; Credits: 16.5			

Note: List of AEAS/AEAV 4XX is given in para 4.5 & 4.6

DEPT OF NAVAL ARCHITECTURE AND MARINE ENGINEERING

Total Credit Hours: 160

Level–1, Term-I

Course Code	Course Name	Contact Hour	Credits
	Theory Courses		
NAME 107	Introduction to Naval Architecture and Marine Engineering	3.0	3.0
CHEM 101	Fundamentals of Chemistry	3.0	3.0
MATH 101	Differential Calculus and Integral Calculus	3.0	3.0
PHY 101	Wave Oscillation, Geometrical Optics and Modern Physics	3.0	3.0
GEBS 101	Bangladesh Studies	2.0	2.0
	Sessional Courses		
CHEM 102	Chemistry Lab	3.0	1.5
PHY 102	Physics Lab	3.0	1.5
ME 150	Mechanical Engineering Drawing	3.0	1.5
SHOP 180	Workshop Practice	3.0	1.5
	Total (5T + 4S)	**26.0**	**20.0**

LEVEL-2, TERM-I

Course Code	Course Name	Contact Hour	Credits
	Theory Courses		
NAME 201	Mechanics of Structure	3.0	3.0
NAME 205	Shipbuilding Materials and Metallurgy	3.0	3.0
NAME 207	Ship Design	3.0	3.0
NAME 213	Fluid Mechanics	3.0	3.0
MATH 201	Vector Analysis, Laplace and Coordinate Geometry	3.0	3.0
	Sessional Courses		
NAME 208	Computer Aided Ship Design	4.0	2.0
NAME 214	Fluid Mechanics Lab	3.0	1.5
LANG 202	Communicative English-II	3.0	1.5
	Total (5T + 3S)	**25.0**	**20.0**

LEVEL-1, TERM-II

Course Code	Course Name	Contact Hour	Credits
	Theory Courses		
NAME 157	Hydrostatics and Stability	3.0	3.0
NAME 177	Thermal Engineering	3.0	3.0
CSE 115	Computer Programming Language	3.0	3.0
MATH 103	Differential Equation and Matrix	3.0	3.0
PHY 113	Structure of Matter, Electricity and Magnetism	3.0	3.0
	Sessional Courses		
NAME 158	Basic Ship Design	3.0	1.5
NAME 178	Thermal Engineering Lab	3.0	1.5
LANG 102	Communicative English-I	3.0	1.5
CSE 116	Computer Programming Lab	3.0	1.5
	Total (5T + 4S)	**27.0**	**21.0**

LEVEL- 2, TERM- II

Course Code	Course Name	Contact Hour	Credits
	Theory Courses		
NAME 253	Marine Hydrodynamics	3.0	3.0
ME 277	Heat Transfer	3.0	3.0
EECE 281	Marine Electrical and Electronics	4.0	4.0
MATH 219	Statistics, Complex Variable and Fourier Analysis	3.0	3.0
GELM 275	Leadership & Management	2.0	2.0
	Sessional Courses		
NAME 202	Mechanics of Structure Lab	1.5	0.75
NAME 206	Shipbuilding Materials and Metallurgy Lab	1.5	0.75
NAME 254	Marine Hydrodynamics Lab	1.5	1.5
NAME 258	Stability and Machinery Layout Design	1.5	1.5
	Total (5T + 4S)	**24.0**	**19.5**

LEVEL- 3, TERM- I

Course Code	Course Name	Contact Hour	Credits
Theory Courses			
NAME 301	Ship Structure	3.0	3.0
NAME 315	Ship Construction and Welding Technology	3.0	3.0
NAME 353	Ship Resistance and Propulsion	3.0	3.0
NAME 311	Machine Elements Design	3.0	3.0
GEE 303	Fundamentals of Economics	2.0	2.0
GES 305	Fundamentals of Sociology	2.0	2.0
Sessional Courses			
NAME 300	Ship Design Project	3.0	1.5
NAME 308	Application of ship design software	3.0	1.5
EECE 382	Marine Electrical and Electronics Lab	3.0	1.5
	Total (6T + 2S + 1P)	**25.0**	**20.5**

LEVEL- 3, TERM- II

Course Code	Course Name	Contact Hour	Credits
Theory Courses			
NAME 307	Design of Special Ships	3.0	3.0
NAME 309	Marine Engineering-I	3.0	3.0
NAME 363	Numerical Methods	3.0	3.0
GESL311	Environment, Sustainability and Industrial Law	2.0	2.0
NAME 3XX	Optional Course 1*	3.0	3.0
Sessional Courses			
NAME 300	Ship Design Project	3.0	1.5
NAME 310	Marine Engineering Lab-I	3.0	1.5
NAME 354	Ship Resistance and Propulsion Lab	3.0	1.5
GERM 352	Fundamentals of Research Methodology	4.0	2.0
	Total (5T + 3S + 1P)	**27.0**	**20.5**

* Optional Courses will be offered as required from the subjects mentioned in para 4.5 (i).

LEVEL- 4, TERM- I

Course Code	Course Name	Contact Hour	Credits
Theory Courses			
NAME 403	Dynamics of Marine Vehicles	3.0	3.0
NAME 409	Marine Engineering -II	3.0	3.0
GEA407	Principles of Accounting	2.0	2.0
GEPM 471	Project Management and Finance	2.0	2.0
NAME 4XX	Optional Course 2*	3.0	3.0
Sessional Courses			
NAME 400	Research Project/ Thesis	6.0	3.0
NAME 464	Numerical Methods Lab	3.0	1.5
NAME 450	Shipyard Practice/Industrial Training (4 Weeks)**	4 weeks	1.5
	Total (5T + 2S + 1RP)	**22.0 + 4 weeks**	**19.0**

* Optional Courses will be offered as required from the subjects mentioned in para 4.2.2 (ii)

** 04 Weeks Industrial/Shipyard Training course will be conducted as NAME-450 on completion of level 3 before commencing level 4.

LEVEL- 4, TERM- II

Course Code	Course Name	Contact Hour	Credits
Theory Courses			
NAME 457	Maritime Economics and Management	3.0	3.0
NAME 459	Marine Maintenance and Repair Engineering	3.0	3.0
GEEM 441	Engineering Ethics and Moral Philosophy	2.0	3.0
NAME 4XX	Optional Course 3*	3.0	3.0
NAME 4XX	Optional Course 4*	3.0	3.0
Sessional Courses			
NAME 400	Research Project/Thesis	6.0	3.0
NAME 410	Marine Engineering Lab-II	3.0	1.5
NAME 490	Bangladesh Studies for Naval Architects	2.0	1.0
	Total (6T + 2S + 1P)	**25.0**	**19.5**

* Optional Courses will be offered as required from the subjects mentioned in para 4.2.2 (ii).

DEPT OF INDUSTRIAL AND PRODUCTION ENGINEERING

Total Credit Hours: 160

Level -1, Term I

Course Code	Course Title	Contact hours	Credit
IPE 101	Introduction to Industrial and Production Engineering	3	3.00
MATH 101	Differential and Integral Calculus	3	3.00
CHEM 101	Fundamentals of Chemistry	3	3.00
PHY 101	Waves & Oscillations, Optics and Modern Physics	3	3.00
GES 101	Fundamentals of Sociology	2	2.00
	Total Theoretical :	**14**	**14.00**
PHY 102	Physics Sessional	3	1.50
SHOP 172	Machine Shop Practice	2	1.00
CHEM 102	Chemistry Sessional	3	1.50
	Total Sessional :	**8**	**4.00**
	Grand Term Total:	**22.00**	**18.00**

Level- 2, Term I

Course Code	Course Title	Contact hours	Credit
MATH 201	Vector Analysis, Laplace Transformation & Co-ordinate Geometry	3	3.00
EECE 271	Electrical Machines and Electronics	3	3.00
CSE 281	Computer Programming	3	3.00
IPE 201	Manufacturing Processes I	3	3.00
GELM 275	Leadership and Management	2	2.00
IPE 207	Engineering Economy	3	3.00
	Total Theoretical :	**17**	**17.00**
EECE 272	Electrical Machines and Electronics Sessional	1.50	0.75
CSE 282	Computer Programming Sessional	3	1.50
IPE 202	Manufacturing Processes I Sessional	1.5	0.75
IPE 200	Engineering Graphics and CAD Sessional	3	1.50
LANG 202	Communicative English II	3	1.50
	Total Sessional :	**12.0**	**6.0**
	Grand Term Total:	**29.0**	**23.00**

Level -1, Term II

Course Code	Course Title	Contact hours	Credit
MATH 103	Differential Equations and Matrix	3	3.00
IPE 105	Engineering Materials	3	3.00
EECE 171	Basic Electrical & Electronic Circuit	3	3.00
GEA 101	Principles of Accounting	2	2.00
GEBS 101	Bangladesh Studies	2	2.00
Total Theoretical		**13**	**13.00**
ME 160	Engineering Drawing	3	1.50
LANG 102	Communicative English I	3	1.50
EECE 172	Basic Electrical & Electronic Circuit Sessional	1.50	0.75
IPE 106	Engineering Materials Sessional	3	1.50
	Total Sessional :	**10.5**	**5.25**
	Grand Term Total:	**23.5**	**18.25**

Level -2, Term II

Course Code	Course Title	Contact Hour	Credit
IPE 203	Manufacturing Process II	3	3.00
IPE 205	Probability and Statistics	3	3.00
IPE 243	Mechanics of Solids	3	3.00
IPE 251	Thermodynamics and Heat Transfer	3	3.00
MATH 215	Numerical Analysis	3	3.00
IPE 271	Engineering Mechanics and Mechanics of Machinery	3	3.00
Total Theoretical		**18**	**18.00**
IPE 204	Manufacturing Processes II Sessional	1.5	0.75
IPE 206	Probability and Statistics Sessional	1.5	0.75
IPE 244	Mechanics of Solids Sessional	1.5	0.75
IPE 252	Thermodynamics and Heat Transfer Sessional	1.5	0.75
	Total Sessional :	**6.0**	**3.00**
	Grand Term Total:	**24.0**	**21.00**

Level 3, Term I

Course Code	Course Title	Contact Hour	Credit
IPE 351	Fluid Mechanics & Machinery	3	3.00
IPE 301	Measurement, Instrumentation and Control	3	3.00
IPE 303	Product Design I	3	3.00
IPE 305	Operations Research	4	4.00
GEEM 343	Engineering Ethics and Moral Philosophy	2	2.00
GESL 313	Environment, Sustainability and Law	2	2.00
	Total Theoretical:	**17**	**17.00**
IPE 352	Fluid Mechanics & Machinery Sessional	1.5	0.75
IPE 302	Measurement, Instrumentation and Control Sessional	1.5	0.75
IPE 306	Operations Research Sessional	1.5	0.75
GERM 352	Fundamentals of Research Methodology	4	2.00
	Total Sessional :	**8.5**	**4.25**
	Grand Term Total:	**25.5**	**21.25**

Level 3, Term II

Course Code	Course Title	Contact Hour	Credit Hour
IPE 309	Material Handling and Maintenance Management	3	3.00
IPE 311	Operations Management	3	3.00
IPE 313	Quality Management	3	3.00
IPE 315	Entrepreneurship Development and Micro Industries	2	2.00
IPE 317	Ergonomics and Safety Management	3	3.00
IPE 307	Product Design II	3	3.00
Total Theoretical		**17**	**17.00**
IPE 308	Product Design Sessional	1.5	0.75
IPE 310	Material Handling and Maintenance Management Sessional	1.5	0.75
IPE 314	Quality Management Sessional	1.5	0.75
IPE 318	Ergonomics and Safety Management	1.5	0.75
IPE 320	Industrial Practice	4 Weeks	1.00
	Total Sessional :	**6**	**4.00**
	Grand Term Total:	**23**	**21.00**

Level 4, Term I

Course Code	Course Title	Contract Hour	Credit Hour
IPE 421	Machine Tools	3	3.00
IPE 419	Modeling and Simulation	3	3.00
IPE 415	Project Management	3	3.00
IPE ---	Optional I	3	3.00
IPE ---	Optional II	3	3.00
	Total Theoretical :	**15**	**15.00**
IPE 400	Final Year Design & Research Project I	6	3.00
IPE 420	Modeling and Simulation Sessional	1.5	0.75
IPE 422	Machine Tools Sessional	3	1.50
IPE 450	Business Communication Seminar	1.5	0.75
	Total Sessional :	**12**	**6.00**
	Grand Term Total:	**27**	**21.00**

Level 4, Term II

Course No	Course Title	Contract Hour	Credit Hour
IPE 405	Supply Chain Management	3	3.00
IPE 411	CAD/CAM	3	3.00
IPE ---	Optional III	3	3.00
IPE ---	Optional IV	3	3.00
	Total Theoretical :	**12**	**12.00**
IPE 400	Final Year Design & Research Project II	6	3.00
IPE 412	CAD/CAM Sessional	1.5	0.75
IPE 418	Mechatronics and Industrial AutomationSessional	1.5	0.75
	Total Sessional :	**9**	**4.50**
	Grand Term Total:	**21**	**16.50**

The grand total credit hours required for the degree of B.Sc. in Industrial and Production Engineering is **160.00**.

FACULTY OF SCIENCE AND ENGINEERING

DEPT OF BIOMEDICAL ENGINEERING

Total Credit Hours: 160

Level-1 Term-I

Course Code	Course Name	Contact Hour	Credits
BME 101	Introduction to Biomedical Engineering	2.0	2.0
PHY 101	Waves and Oscillations, Optics and Modern physics	3.0	3.0
PHY 102	Physics Sessional	3.0	1.5
CHEM 101	Fundamentals of Chemistry	3.0	3.0
CHEM 102	Chemistry Sessional	3.0	1.5
MATH 101	Differential and Integral Calculus	3.0	3.0
EECE 191	Principles of Electrical Engineering	3.0	3.0
EECE 192	Principles of Electrical Engineering Sessional	3.0	1.5
	Total:	**23.0**	**18.5**

Level-1 Term-II

Course Code	Course Name	Contact Hour	Credits
BME 104	CAD in Biomedical Engineering Sessional	3.0	1.5
BME 105	Human Anatomy	3.0	3.0
PHY 109	Structure of matter, Electricity and Magnetism, and Mechanics	3.0	3.0
CHEM 125	Physical and Bio-organic Chemistry	3.0	3.0
MATH 105	Vector Analysis, Matrix and Coordinate Geometry	3.0	3.0
GES 101	Fundamentals of Sociology	2.0	2.0
GEBS 101	Bangladesh Studies	2.0	2.0
LANG 102	Communicative English I	3.0	1.5
	Total:	**22.0**	**19.0**

Level-2 Term-I

Course Code	Course Name	Contact Hour	Credits
BME 201	Human Physiology	3.0	3.0
MATH 205	Differential Equation, Laplace transform and Fourier Transform	3.0	3.0
EECE 291	Electronic Circuits and Devices	3.0	3.0
EECE 292	Electronic Circuits and Devices Sessional	3.0	1.5
CSE 291	Computer Programming	3.0	3.0
CSE 292	Computer Programming Sessional	3.0	1.5
GELM 271	Leadership and Management	2.0	2.0
LANG 202	Communicative English II	3.0	1.5
	Total:	**23.0**	**18.5**

Level-2 Term-II

Course Code	Course Name	Contact Hour	Credits
BME 203	Biochemistry	3.0	3.0
BME 204	Biochemistry Sessional	3.0	1.5
BME 205	Biofluid Mechanics and Heat Transfer	3.0	3.0
BME 206	Biofluid Mechanics and Heat Transfer Sessional	3.0	1.5
BME 207	Biomedical Instrumentation and Measurements	3.0	3.0
BME 208	Biomedical Instrumentation and Measurements Sessional	3.0	1.5
ME 291	Principles of Mechanical Engineering	3.0	3.0
ME 292	Mechanical Engineering Lab	3.0	1.5
MATH 231	Complex Variables and Linear Algebra	3.0	3.0
	Total:	**27.0**	**21.0**

Level-3 Term-I

Course Code	Course Name	Contact Hour	Credits
BME 301	Statistics and Numerical Methods for Engineers	3.0	3.0
BME 303	Biomaterials	3.0	3.0
BME 304	Biomaterials Sessional	3.0	1.5
BME 305	Biomedical Signal Processing	3.0	3.0
BME 306	Biomedical Signal Processing Sessional	3.0	1.5
BME 307	Medical Imaging	3.0	3.0
EECE 391	Digital Electronics	3.0	3.0
EECE 392	Digital Electronics Sessional	3.0	1.5
GERM 352	Fundamentals of Research Methodology (Sessional)	4.0	2.0
	Total:	**28.0**	**21.5**

Level-3 Term-II

Course Code	Course Name	Contact Hour	Credits
BME 309	Diagnostic and Therapeutic Equipment-I	3.0	3.0
BME 311	Embedded Systems and Interfacing	3.0	3.0
BME 312	Embedded Systems and Interfacing Sessional	3.0	1.5
BME 313	Biomedical Image Processing	3.0	3.0
BME 314	Biomedical Image Processing Sessional	3.0	1.5
BME 315	Biomechanics	3.0	3.0
BME 316	Biomechanics Sessional	3.0	1.5
BME 318	Biomedical Engineering Design Sessional	3.0	1.5
BME 300	Industrial Training	4 weeks	1.5
	Total:	**24.0**	**19.5**

BME 300 (Industrial Training) will be conducted at any convenient time after the term end exam of term-2 for a duration of ¾ weeks as applicable or decided by the department.

Level-4 Term-1

Course Code	Course Name	Contact Hour	Credit
BME 401	Diagnostic and Therapeutic Equipment-II	3.0	3.0
BME 403	Biomedical Transport Phenomenon	3.0	3.0
BME 405	Molecular Biology for Engineers	3.0	3.0
BME 406	Molecular Biology for Engineers Sessional	3.0	1.5
BME 4**	Elective 1	3.0	3.0
BME 4**	Elective 2	3.0	3.0
GEPM 481	Project Management and Finance	2.0	2.0
BME 400	Final Year Design and Research Project	6.0	3.0
	Total:	**26.0**	**21.5**

Level-4 Term-II

Course Code	Course Name	Contact Hour	Credit
BME 407	Healthcare Technology Management	3.0	3.0
BME 409	Rehabilitation Engineering	3.0	3.0
BME 410	Rehabilitation Engineering Sessional	3.0	1.5
BME 4**	Elective 3	3.0	3.0
BME 4**	Elective 4	3.0	3.0
GESL 421	Environment, Sustainability and Law	2.0	2.0
GEEM 451	Engineering Ethics and Moral Philosophy	2.0	2.0
BME 400	Final Year Design and Research Project	6.0	3.0
Total:		**25.0**	**20.5**

DEPT OF NUCLEAR SCIENCE AND ENGINEERING (NSE)

Total Credit Hours: 160.00

Level – 1, Term – I

Course Code	Course Title	Contact Hour	Credits
NE 101	Introduction to Nuclear Engineering	3.0	3.0
PHY 101	Waves and Oscillations, Optics and Modern Physics	3.0	3.0
MATH 101	Differential and Integral Calculus	3.0	3.0
EECE 119	Fundamentals of Electrical Circuit Analysis	3.0	3.0
GES 101	Fundamentals of Sociology	2.0	2.0
	Theory Total:	**14.0**	**14.0**
LANG 172	Introduction to Russian Language - I	1.5	0.75
PHY 102	Physics Sessional	3.0	1.5
EECE 120	Fundamentals of Electrical Circuit Analysis Sessional	1.5	0.75
ME 180	Basic Engineering Drawing	3.0	1.5
Sessional Total		**9.0**	**4.5**
	Term Total:	**23.0**	**18.5**

Level – 1, Term – II

Course Code	Course Title	Contact Hour	Credits
NE 105	Fundamentals of Atomic and Nuclear Physics	3.0	3.0
NE 141	Fundamentals of Thermodynamics	3.0	3.0
CHEM 101	Fundamentals of Chemistry	3.0	3.0
MATH 103	Differential Equations and Matrix	3.0	3.0
CSE 121	Introduction to Computer Science and Programming Language	3.0	3.0
GEBS 101	Bangladesh Studies	2.0	2.0
	Theory Total:	**17.0**	**17.0**
LANG 174	Introduction to Russian Language - II	1.5	0.75
CHEM 102	Chemistry Sessional	3	1.5
LANG 102	Communicative English-I	3	1.5
CSE 122	Introduction to Computer Science and Programming Language Sessional	1.5	0.75
Sessional Total		**9.0**	**4.5**
	Term Total:	**26.0**	**21.5**

Level – 2, Term – I

Course Code	Course Title	Contact Hour	Credits
NE 203	Introduction to Nuclear and Radio Chemistry	3.0	3.0
NE 243	Fundamentals of Heat Transfer and Thermal Engineering	4.0	4.0
NE 251	Nuclear Materials	3.0	3.0
MATH 201	Vector Analysis, Laplace Transform and Coordinate Geometry	3.0	3.0
GELM 275	Leadership and Management	2.0	2.0
	Theory Total:	**15.0**	**15.0**
NE 204	Introduction to Nuclear and Radio Chemistry Sessional	1.5	0.75
NE 244	Fundamentals of Heat Transfer and Thermal Engineering Sessional	3.0	1.5
NE 252	Nuclear MaterialsSessional	3.0	1.5
LANG 202	Communicative English-II	3.0	1.5
Sessional Total		**10.5**	**5.25**
Term Total		**25.5**	**20.25**

Level – 2, Term – II

Course Code	Course Title	Contact Hour	Credits
NE 207	Reactor Theory and Analysis-I	3.0	3.0
NE 261	Numerical Methods in Nuclear Engineering Analysis	3.0	3.0
EECE 221	Electrical and Electronics Technology	3.0	3.0
ME 253	Engineering Mechanics	3.0	3.0
MATH 209	Fourier Analysis, Complex Variable and Statistics	3.0	3.0
GESL 221	Environment, Sustainability and Law	2.0	2.0
	Theory Total:	**17.0**	**17.0**
NE 262	Numerical Methods in Nuclear Engineering Analysis Sessional	3.0	1.5
EECE 222	Electrical and Electronics Technology Sessional	3.0	1.5
ME 254	Engineering Mechanics Sessional	1.5	0.75
Sessional Total		**7.5**	**3.75**
	Term Total:	**24.5**	**20.75**

Level – 3, Term – I

Course Code	Course Title	Contact Hour	Credits
NE 301	Radiation Detection and Measurement	3.0	3.0
NE 305	Nuclear Reactor Thermal Hydraulics	3.0	3.0
NE 307	Reactor Theory and Analysis - II	3.0	3.0
NE 317	Nuclear Security and Safeguard Engineering	3.0	3.0
NE 331	Automation, Robotics and Liner Control System	3.0	3.0
GEPM 381	Project Management and Finance	2.0	2.0
Theory Total		**17.0**	**17.0**
NE 302	Radiation Detection and Measurement Sessional	1.5	0.75
NE 306	Nuclear Reactor Thermal Hydraulics Sessional	3.0	1.5
NE 318	Nuclear Security and Safeguard Engineering Sessional	1.5	0.75
Sessional Total		**6.0**	**3.0**
Term Total		**23.0**	**20.0**

Level – 3, Term – II

Course Code	Course Title	Contact Hour	Credits
NE 321	Reactor Operation and Safety	3.0	3.0
NE 333	Reactor Instrumentation and Control	3.0	3.0
NE 353	Mechanics of Materials	3.0	3.0
NE 355	Fluid Mechanics and Machinery	3.0	3.0
GEEM 351	Engineering Ethics & Moral Philosophy	2.0	2.0
Theory Total		**14.0**	**14.0**
NE 320	Industrial Training	4 Wks	1.5
NE 334	Reactor Instrumentation and Control Sessional	1.5	0.75
NE 354	Mechanics of Materials Sessional	1.5	0.75
NE 356	Fluid Mechanics and Machinery Sessional	1.5	0.75
GERM 352	Fundamentals of Research Methodology	4.0	2.0
Sessional Total		**8.5 + 4 Wks**	**5.75**
Term Total		**22.5 + 4 Wks**	**19.75**

Level – 4, Term – I

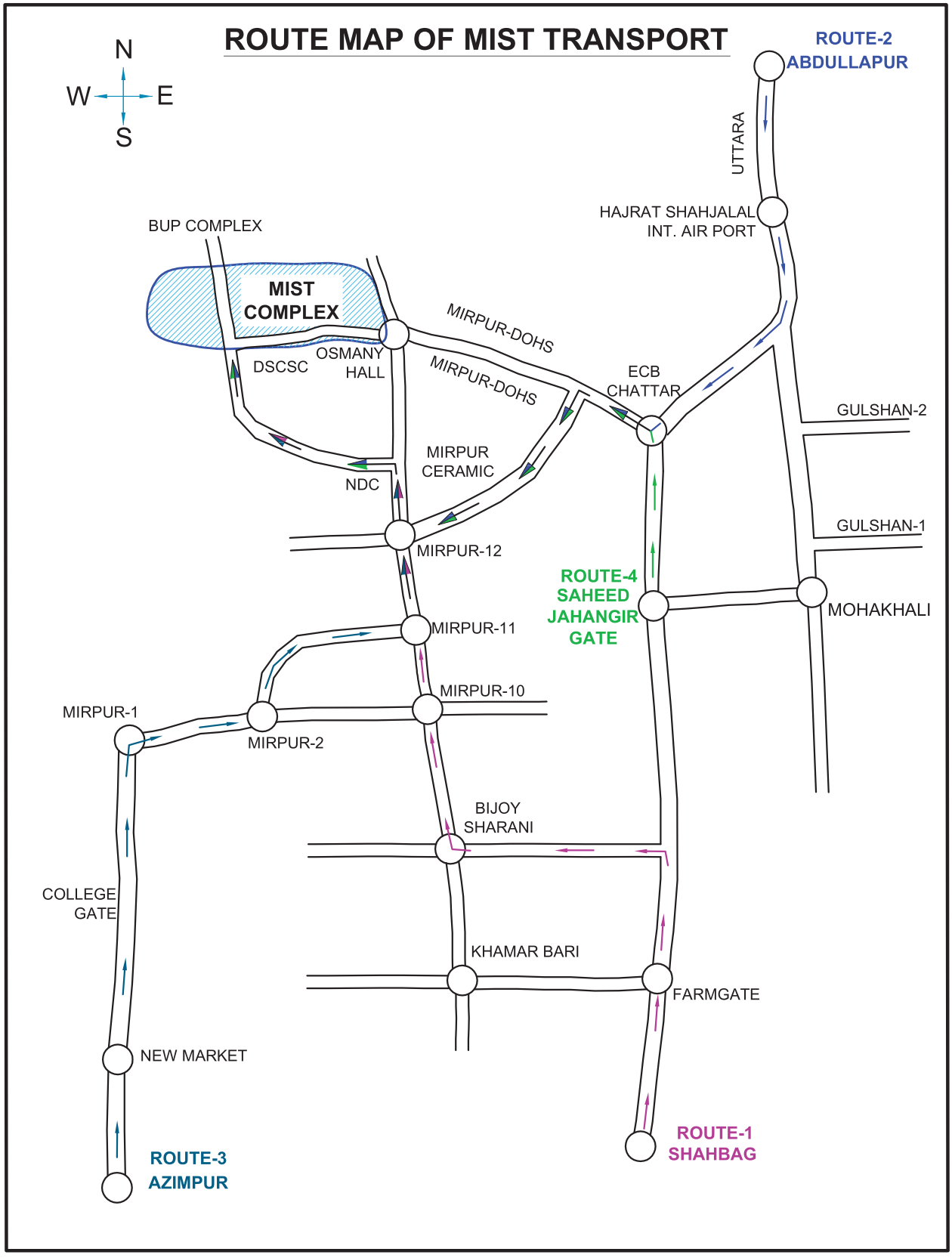
Course Code	Course Title	Contact Hour	Credits
NE 409	Nuclear Fuel Cycle and Radioactive Waste Management	3.0	3.0
NE 417	Nuclear Accidents Analysis and Radiological Emergency	3.0	3.0
NE 425	Nuclear Reactor Design and Features	4.0	4.0
-	Elective Course-1	3.0	3.0
-	Elective Course-2	3.0	3.0
Theory Total		**16.0**	**16.0**
NE 400	Final Year Design and Research Project	6.0	3.0
NE 426	Nuclear Reactor Design and Features Sessional	3.0	1.5
Sessional Total		**9.0**	**4.5**
Term Total		**25.0**	**20.5**

Level – 4, Term – II

Course Code	Course Title	Contact Hour	Credits
NE 415	Radiation Interactions, Shielding and Protection	3.0	3.0
NE 423	Nuclear Power Plant Operation and In-core Fuel Management	3.0	3.0
NE 427	Nuclear Power Plant Engineering	3.0	3.0
-	Elective Course-3	3.0	3.0
-	Elective Course-4	3.0	3.0
Theory Total		**15.0**	**15.0**
NE 400	Final Year Design and Research Project	6.0	3.0
NE 428	Nuclear Power Plant Engineering Sessional	1.50	0.75
Sessional Total		**7.5**	**3.75**
Term Total		**22.5**	**18.75**

CONCLUSION

Military Institute of Science and Technology (MIST) is dedicated with a progressive and innovative outlook to pursue in excelling technical education of the modern age. In the meantime, it is established as prestigious academic institute for studies in different fields of engineering and technology for both military and civil officials/ students. MIST runs undergraduate and post graduate level studies including M.Phil and Ph.D program. Students from home and abroad participate in their respective fields of study. MIST has provision for advisory, research and consultancy service including supervisions, material testing and to enter into suitable agreement with any government and non- government organizations for this purpose. MIST intends to establish co-operations with globally reputed universities and strictly maintains yearly academic schedule. Strict adherence to program schedule and in-time completion of the curricula is the hallmark of MIST principles, keeping quality education as our professed goal. MIST has come up through many hurdles. It has accomplished its initial mission and is destined to achieve yet more laurels. Imbued with its motto **'Technology for Advancement'**, MIST is on a steady program, ardently pursuing to achieve its goal as **'Centre of Excellence'** and assume a prestigious position in the educational arena of Bangladesh.



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