PROSPECTUS 2015

MIST

TECHNOLOGY FOR ADVANCEMENT

MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY

MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY (MIST)

INAUGURAL CEREMONY OF MIST

ON 19 APRIL 1998

HONOURABLE PRIME MINISTER OF PEOPLE'S REPUBLIC OFBANGLADESH

SHEIKH HASINA UNVEILLING THE FOUNDATION PLAQUE

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 in Bangladesh. Head of the institution is Commandant who is a Major General from Bangladesh Army. MIST started its journey since 19 April 1998. It was the visionary dream of the Honorable **Prime Minister** of 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 to be 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 is shown below:

Serial	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	Nuclear Science and Engineering (NSE),	2015
8	Biomedical Engineering (BME)	2015
9	Architecture (Arch)	2015
10	Environmental, Water Resources and Coastal Engineering (EWCE)	2015
11	Petroleum and Mining Engineering (PME)	2016
12	Industrial and Production Engineering (IPE)	2016

MIST is also offering Ph.D, M.Sc under CE, EECE, ME, CSE departments and M. Phil under Science & Humanities department.

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

Foreign students were admitted first time in session 2008-2009. Since then total seven 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. Total 2266 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 2024 students out of which 84% is civil students.

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.
- ✓ Flexibility in choosing competent faculties through outsourcing.
- ✓ Well thought-out and continuous feedback and assessment system.
- ✓ Effective teaching through innovative method.
- ✓ Industrial attachment on job training.
- ✓ Emphasis on code of conduct and dress code.
- ✓ Focus to develop students as good human with all possible attributes of 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 officials/ 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 (Department), 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 purpose.
- ✓ To co-operate with Universities/ Technical Institutions (both military and civil) including memoranda 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.

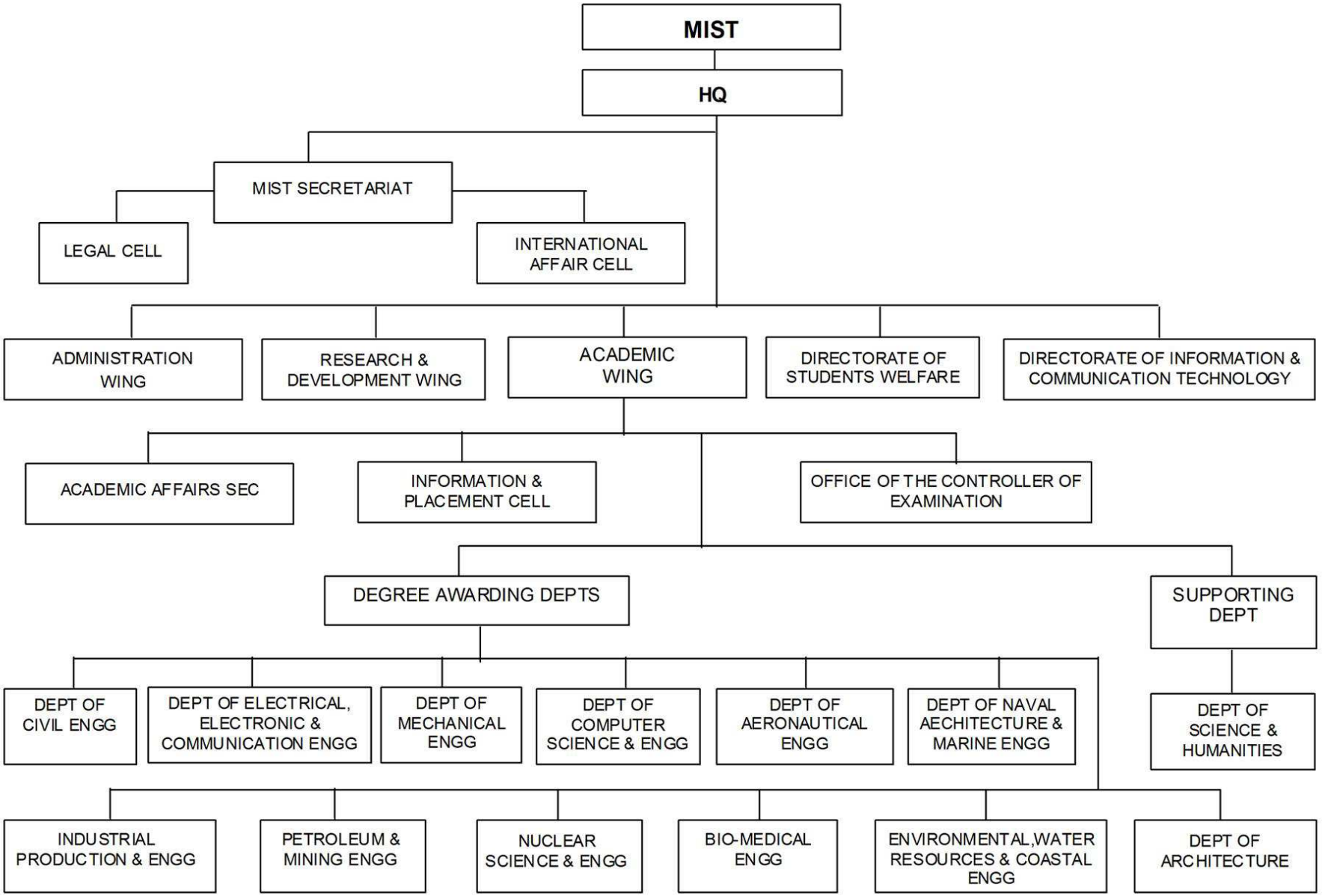
CAPABILITIES

- ✓ To conduct under-graduate programs 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)
    - ❖ Petroleum and Mining Engineering (PME)
    - ❖ Industrial and Production Engineering (IPE)
- ✓ To conduct post graduate programs (masters and PhD)
- ✓ To conduct diploma and certificate programs in Civil Engineering.
- ✓ To conduct diploma and certificate programs in Computer Science & Engineering.
- ✓ To conduct diploma and certificate programs in Electrical & Electronics Engineering.
- ✓ To conduct diploma and certificate programs in Mechanical Engineering.
- ✓ To conduct research and professional advanced programs / 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.

ORGANOGRAM


MIST
HQ
MIST SECRETARIAT
LEGAL CELL
INTERNATIONAL AFFAIR CELL
ADMINISTRATION WING
RESEARCH & DEVELOPMENT WING
ACADEMIC WING
DIRECTORATE OF STUDENTS WELFARE
DIRECTORATE OF INFORMATION & COMMUNICATION TECHNOLOGY
ACADEMIC AFFAIRS SEC
INFORMATION & PLACEMENT CELL
OFFICE OF THE CONTROLLER OF EXAMINATION
DEGREE AWARDING DEPTS
SUPPORTING DEPT
DEPT OF CIVIL ENGG
DEPT OF ELECTRICAL, ELECTRONIC & COMMUNICATION ENGG
DEPT OF MECHANICAL ENGG
DEPT OF COMPUTER SCIENCE & ENGG
DEPT OF AERONAUTICAL ENGG
DEPT OF NAVAL AECHITECTURE & MARINE ENGG
DEPT OF SCIENCE & HUMANITIES
INDUSTRIAL PRODUCTION & ENGG
PETROLEUM & MINING ENGG
NUCLEAR SCIENCE & ENGG
BIO-MEDICAL ENGG
ENVIRONMENTAL,WATER RESOURCES & COASTAL ENGG
DEPT OF ARCHITECTURE

DEPARTMENTS

Faculty of CE:

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

Faculty of ECE:

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

Faculty of ME:

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

Faculty of NSBME:

- Biomedical Engineering (BME)
- Nuclear Science and Engineering (NSE)

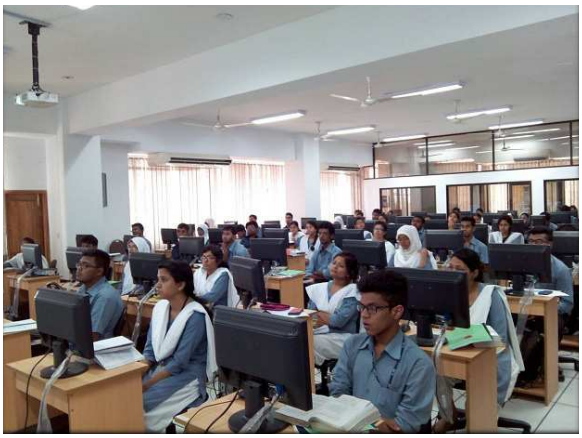
Presently MIST has ten departments to conduct four different engineering faculties. Two new departments will commence their curriculum from 2016. The departments impart education basing on common objectives and outcomes set by MIST and have defined program objectives and outcomes, specific to the departments respectively.

Civil Engineering (CE) Department

Focussing on creating a positive, interactive learning environment, the department of CE produces top-notch engineers and leaders for the next generation. The department started its journey as pioneer department with 40 military students in 1999. After 14 years of its inception, the department has again pioneered in introducing Post Graduate Degree in CE since October semester 2012. At present 26 faculties are serving in this department of whom 7 are PhD qualified. It is now providing the most sophisticated and updated technological support in the field of civil engineering. In addition, the program's emphasis on engineering sciences and design; provides 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 is enriched with highly experienced and disciplined teaching staffs having wide vision. The department plays a very important role in the country's infrastructural development. Many important construction works and projects in the field of structural, geotechnical, transportation and environmental engineering are carried out with the consultancy services of this department. A study on circular waterway around the Dhaka city, Master

plan of Mirpur cantonment, Eco-park in Mirpur cantonment area, Garment buildings inspection and assessment of different military installation was carried by the faculty members of this department. Various tests regarding material properties, constructional quality controls etc. are also on-going in the laboratories.

Computer Science and Engineering (CSE) Department



Department of CSE has started its journey from academic session 2000-2001. The department is currently offering undergraduate program B.Sc. in CSE as well as graduate and postgraduate programs (Ph.D, MSc and M.Engg) in CSE. With its excellent professional competence, pragmatic curriculum, expert teaching viewpoints and capabilities of training, B.Sc. in CSE degree program has achieved accreditation from BAETE (IEB) on 10 July 2013 with a grade as "Good". This department produces highly qualified and skilled computer science graduates. Over the years, this rapidly flourishing department has been providing the technical foundation, scholarly guidance and leadership skills to the undergraduate and postgraduate students who proved their potentiality at home and abroad. Major areas of specialties of CSE department are Software, Hardware, Networking, Computer Graphics & Image Processing, Artificial Intelligence & Robotics, System Analysis Design & Development, Information Systems Security etc. At present 28 faculties specialized from different background (civil, military and foreign) are serving in this department. In addition a good number of senior faculties from renowned universities like BUET, Dhaka University conduct courses as guest faculties. This department offers adequate facilities for carrying out innovative research works in the field of CSE. The department is going to start M.Sc. in Modeling and Simulation Engineering (MSE) from October 2015.

Electrical, Electronic and Communication Engineering (EECE) Department

The foundation of EECE department was laid in 2003.It is functioning under the Faculty of Electrical & Computer Engineering. The department is offering both undergraduate and postgraduate programs. The department is subdivided into three major areas: Power, Electronics and Communication in the graduate and undergraduate curricula. With several professors who are also respected researchers, the Department serves 360 undergraduates and 120 graduate students. The Department offers a diverse educational experience with a focus on traditional areas as well as in emerging areas. The faculties are engaged in numerous research areas including satellite navigation, radar detection and tracking, optical fiber communication, broadband wireless communications, renewable energy, thin film technology. At present, there are 25 faculties in this department. The department frequently arranges project competition and seminars to enhance the knowledge of the students. The students of this department participate in various national and internal competitions throughout the year. Under this department, MIST robotics club and IEEE student branch are performing. The department got accreditation from BAETE in September 2010.Post graduate program under this department started functioning since October 2013.

Mechanical Engineering (ME) Department

The ME department started its journey from January 2003. The aim of the department is to provide mechanical engineering with high-quality engineering education and contribute new knowledge through research in mechanical engineering and allied disciplines. Mechanical Engineers apply the principles of mechanics and energy to the design of machines and devices. They must be able to control mechanical systems and usually work with other professionals in designing these systems. Automobiles, engines, heating and air-conditioning system, gas and steam turbines, air and space vehicles, trains, ships, servomechanisms, transmission mechanisms, machine tools, material handling systems, elevators and escalators, and robots used in industry are a few of the systems and devices requiring mechanical engineering knowledge.

The ME department offers dynamic educational programs. The faculty also delivers quality engineering education. The department offers studies leading to the B. Sc. in ME, M. Sc. in ME and the Ph.D. This department has received accreditation from BAETE, IEB on March 2010 with a grade as 'GOOD'.

Aeronautical Engineering (AE) Department

AE department started its journey from 1st February 2009. The department is currently offering B.Sc in AE undergraduate program which provides an excellent technical background for persons who want to work in the field of aviation. The new generation of Aeronautical Engineers is encouraged to undertake research and development activities in the areas of aerodynamics, aerospace propulsion, aircraft loading & structural analysis, aerospace vehicle design, space technology, advance aerospace technology, avionics and analysis of fundamentals as well as applied problems. The department is organized into two major divisions: Aerospace and Avionics with a total of 242 students currently studying here. Overseas students from different countries like Palestine, Maldives, Nepal pursued their bachelor degree from this department which was the beginning of wide opportunities for international students. The department is running its 7th batch with successful graduation of 3 batches of 181 students. 21 faculties specialized from different background (civil, military and foreign) are serving in this department.

Within only about seven years, the department has participated in many national and international competitions and has clinched praise-worthy results. Mentionable are NASA Lunabotics mining Competition 2013(USA), DBF Competition 2013 (USA), SAE Aero-design competition 2013 (USA), NASA Lunabotics mining Competition 2013(USA), SAE Aero-design competition 2014 (USA),DBF Competition 2014(USA) , Future Flight Design(FFD) 2015 (Turkey). 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. It has also organized several job fairs, workshops and short courses to enlighten the interested people from diverse background about different aspects of Aeronautical Engineering. The department is in the process of concluding MOU with Civil Aviation Authority of Bangladesh (CAAB), Bangladesh Biman, 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

The department of NAME started its journey with undergraduate program from 27 January 2013 consisting of 30 students. The department is organized into two major divisions: Naval Architecture and Marine Engineering. Naval Architecture acknowledges the capability to design various types of ships & offshore structure with optimum design features. Marine engineering is related with design, operation & maintenance of propulsion system & machinery of ships.

The aim of NAME Dept. is to provide students keen knowledge about designing of ships & offshore structures, determining the optimum/efficient shape for the hull/structure, supervision of construction work etc.

The various industry positions where the students may be employed include ship design firms, dockyards, shipyards, shipping companies, classification societies, Ministry of Shipping, BIWTA and BIWTC. At present, 142 students in three levels are studying & 06 faculties, specialized from different background (Military & Civil) are serving in this department. NAME department have plan to start M. Sc. Program from 2017.

Department of Architecture

Department of Architecture has been started its' journey in 2015. Though it is one of the junior most department, department have all the capability to face any hardship. All enrolled students for the Bachelor of Architecture (B.Arch.) program shall have to complete five (5) years' & minimum 199 credit hours. There will be total of 14 credit hours of General Education (Human Science) courses of 28 contact hours, 79 credit hours of Design courses with the 123 contact hours, 24 credit hours of Design Communication studios 45 contact hours, 24 credit hours of Technical System Courses with 26 contact hours, 18 credit hours of History, Human Behavior & Environment courses with 18 contact hours and 38 credit hours of Design Related theory courses with the necessary contact hours of 76 to complete the program. Students of the program need to earn minimum CGPA of 2.20 in the theory courses and complete the thesis/project satisfactorily under the supervision of a designated supervisor within the stipulated time duration.

Environmental, Water Resources, and Coastal Engineering (EWCE) Department

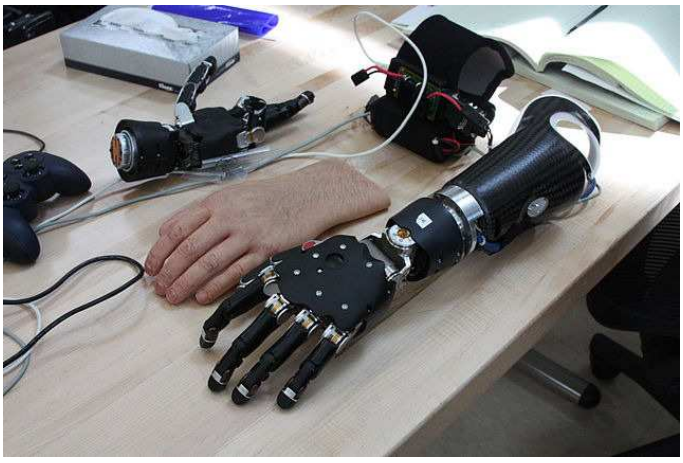
With the vision of developing specialized personnel on Environmental Engineering, Water Resources Engineering and Coastal Engineering fields , EWCE department has been introduced in MIST since January 2015 session. Currently the department is offering undergraduate program in the aforementioned engineering fields and has subsequent plan for offering higher studies.

In Bangladesh, environmental pollution in terms of water, air and soil; waste management; health hazard and other environmental issues need to be addressed as well as assessed properly. Besides, environmental aspects of large scale civil engineering projects should be paid special attention to mitigate their adverse impacts on environment. On the other hand, the vast water resources of the country should be utilized carefully maintaining ecological balance. Water structures, like bridge, culverts, dam, and embankments should be designed properly maintaining river morphology and allowing proper navigation. Again, Bangladesh has the longest coastal belt in the world. The coastal zone of the country provide with enormous marine resources. Specialized study program and comprehensive long term research on marine environment are required for understanding the unique and dynamic nature of the coastal belt as well as for sustainable development projects along the coastal region of the country.

Now, it is high time for comprehensive study and research on all the issues mentioned above regarding water resources, coastal zones and overall environment. Addressing the importance of these issues and with a view to contributing to the socio-economic condition of the country, EWCE department of MIST has taken the time stipulated step to nourish the development of promising researcher, experts as well as leaders on these specialized fields.

Being a very new department in MIST, currently it has 42 students, and 6 highly dedicated and experienced instructors. It has the laboratory facilities on environmental engineering and water resources engineering. These laboratories provide research as well as consultancy services. The department has also a library and the library facilities will be extended further. It is expected that field specific studies and researches on environment, water resources and coastal engineering, initiated by this new department in MIST, will foster better understanding and enhance knowledge on those fields.

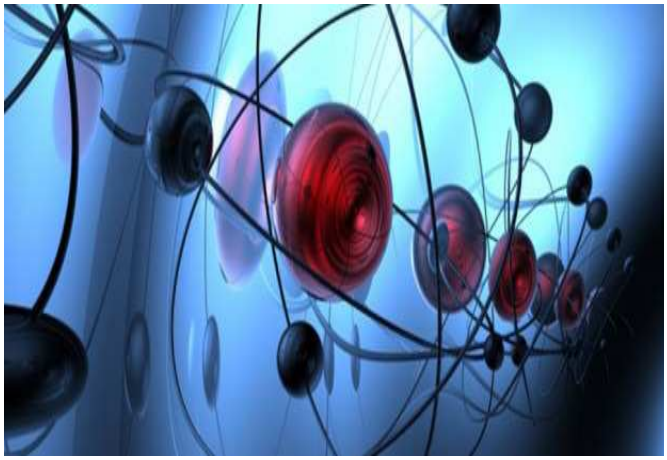
Biomedical Engineering (BME) Department



BME aims to improve human health by applying engineering principles and methods to medical problems. Although Biomedical Engineering is a very recent subject being introduced in our country, it is already a highly demanding field of study. Students get versatile means for career development after completing the degree. Today biomedical engineers are employed in industry, in hospitals, in research facilities, in government regulatory agencies etc. BME is a broad, interdisciplinary field that applies the art of engineering principles and design concepts to problems in biology, medicine, and biotechnology for healthcare purposes e.g diagnostic or therapeutic. The field seeks to close the gap between engineering and medicine. All the life saving devices like cardiac pacemakers, defibrillators, artificial kidneys, blood oxygenators, prosthetic hearts, and joints etc. along with the commonly known medical equipments as CAT, PET, MRI, functional NMR, potential mapping, CT scan, X-ray machine etc. all are the outcome of BME.

The undergraduate program in BME provides a strong foundation in the basic sciences, mathematics, engineering and life sciences. The goal is to enable participants to compete successfully for engineering-related positions immediately upon graduation or to pursue post-graduate education in engineering, science, or medicine. 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 health care related research applications.

Nuclear Science and Engineering (NSE) Department



The Department of NSE provides education for students interested in developing the peaceful applications of nuclear science and engineering for societal needs. Given the global climate change and fuel supply security concerns, nuclear energy is emerging as an important national energy policy element. The applications of other nuclear technologies in medicine and industry have focused attention on the value of strong nuclear science and engineering program. In response to this demand, MIST has developed a new discipline-focused program of study that prepares professionals for the many diverse applications of nuclear science and engineering. Most of the applications fall within the following areas: Modeling and simulation, Nuclear energy, Thermal hydraulics, Radiation shielding, Health Physics, Radioactive waste management, Nuclear security and safeguards with MCNP, RELAP5, Scale, RASCAL, etc. computer code. Problems of military and national importance have consequently received great emphasis in the activities of this department.

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 the top university level programs among the engineering universities in Bangladesh. The Department of Petroleum & Mining Engineering is planning to start its academic work in the year 2016 with the objective to produce qualified personnel in the field of Petroleum & Mining Engineering, skilled enough to quantify the resources, and to develop those resources for proper exploitation. The program is designed to prepare graduates for national and international field of Petroleum and Mining Engineering.

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 help ensuring the nation an energy-secure future that balances environmental impact and affordable energy supply.
To fulfill this mission, the PME department committed to pursue excellence in Reservoir Engineering, Production Engineering, Well Drilling and Completions, Mine Surveying, Rock Mechanics, Integrated Reservoir Characterization, Fit-for-purpose Reservoir Management Techniques, and Mining Engineering with balance environmental impact.

The vision of the department is to remain as the number one petroleum and mineral resources engineering program in the nation and in the region, so that its graduates are globally admired, respected and fit-for-purpose professionals within the industry.

Industrial and Production Engineering (IPE) Department

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

A typical under-graduate course on Industrial & Production engineering emphasizes on manufacturing and improvement of productivity. A student will also learn the trends of dynamics and control and hence will develop a sound knowledge about overall industrial production and management. He/ She will also learn to analyses the emerging technological trends of the industry.

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Science and Humanities (Sc & Hum) Department

Science & Humanities Department plays a dual role in the academic framework of MIST. It supports engineering degree programs as well as offer Postgraduate degrees in various subjects. This department offers curricula of the highest quality through its seven divisions named Physics, Mathematics, Chemistry, English, Economics, Sociology and Accounting. Besides this department has Physics and Chemistry practical labs which are used to impart practical knowledge to the students related to Engineering disciplines. All divisions of this department are dedicated to fulfil the target of disseminating knowledge pertaining to higher education in all engineering programs. Faculty members of Sc & Hum Department are collectively the most qualified cluster of faculties having professional competency to the highest order. This department also plays a pivotal role to uphold the image of this premier Institution through its impeccable educational planning and its judicious application in practical arena.

REGULATORY BODIES

Council of MIST

❖ **Chairman:** Honourable Minister 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, MOD
- Vice Chancellor (VC), BUP
- Engineer in Chief (E in C), Army Headquarters (AHQ)
- Commandant, MIST
- Commandant, BMA
- Commandant, BNA
- Commandant, BAFA
- Representative of the VC, Faculty of Science, DU
- Representative of the VC, BUET
- Director Academic (Dean), MIST
- Representative of the Ministry of Education
- Representative of the Ministry of Finance
- Representative of the Ministry of Science and Information and Communication Technology

❖ **Member 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
- Representative of the Commandant BMA / Commandant MIST, Dean / Senior Instructor
- Representative of the Commandant BNA / Commandant MIST, Dean / Senior Instructor
- Representative of the Commandant BAFA / Commandant MIST, Dean / Senior Instructor
- Director General Training Directorate, AFD
- Director Military Training, Bangladesh Army
- Director Naval Training, Bangladesh Navy
- Director Air Training, Bangladesh Air Force
- Director Academic (Dean), MIST
- Director Research & Development (R&D), MIST
- Director Administration, MIST
- Representative of MOD
- Representative of Ministry of Education
- Representative of Ministry of Finance

❖ **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
- Director Academic (Dean), 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
- 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

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 558 students (male 260 and female 298). 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 staffs and equipment. MIST Medical centre provides required medicine and other necessary support as prescribed by the Medical Officer. Civil students are sent to Azmol Hospital (Mirpur 10), 3 km away from MIST for better treatment.

Transport. MIST provides bus services for the students on payment. The buses move in four routes: MIST to Shahbag, MIST to Abdullahpur, MIST to Azimpur and MIST to Banani. A student is charged with 1240 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, cultural competition, celebration of national days are also arranged regularly in befitting manner.

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

Cultural Programs. To break the monotony of study different cultural programs are arranged at regular intervals.

Centre for Advisory and Testing Services (CATS). The research, consultancy and testing services, required by the industries and the Government agencies is processed, regulated, managed and overviewed by a body of MIST called "Centre for Advisory and Testing Services of MIST"; in short CATS-MIST. CATS also provide the teachers and staffs of MIST with the opportunity to be involved in research and in-depth studies and thus enriches them with the practical knowledge.

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.

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 M.Sc. 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.

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), International Islamic University Malaysia (IIUM), Universiti Kebangsaan Malaysia (UKM), Universiti Tenaga Nasional (UNITEN), Kotelawala Defence University (KDU) Srilanka, United States Naval Academy (USNA) etc.

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

Serial	University/ Institution	Year	Remark
1	Two Faculties from Indian Air Force are under Faculty Exchange Program	2009	MoU is completed
2	Water-Aid Bangladesh- for Rainwater Harvesting System	2013	MoU is completed
3	United States Naval Academy- for exchanging faculty and Joint Research Program	2013	MoU is completed
4	United States Naval Academy (USNA), Annapolis, 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	The Ohio State University, Columbus, Ohio, United States	2015	MoU is completed
9	Port City International University	2014	MoU is completed
10	PLA University of Science and Technology (Nanjing)		MoU is completed
11	Dockyard & Engineering Works Ltd, Sonakanda, Bandar, Narayanganj	2015	MoU is completed
12	University Technology Mara (UITM)	2015	MoU is completed
13	University of Malaya	2015	MoU is completed
14	University Kebangsaan Malaysia (UKM)	2014	MoU is completed
15	University Technology Malaysia (UTM), Malaysia	2014	Letter of Collaboration is Completed
16	International Islamic University Malaysia (IIUM)	2014	Letter of Collaboration is Completed
17	Bangladesh University of Engineering Technology (BUET)	2013	MoU is under process
18	American International University of Bangladesh (AIUB)	2014	MoU is under process
19	Australian Defence Force Academy(ADFA)	"	MoU is under process
20	Royal Military College of Canada(RMCC)	"	MoU is under process
21	Crandfield University (UK)	"	MoU is under process
22	City University, London (UK)	"	MoU is under process
23	Peoples Liberation Army University of Science & Technology (PLAUST), China	"	MoU is under process
24	Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh	2015	MoU is under process

Seminar/Workshop: Following are the seminars conducted by various departments of MIST in 2014:-2015

Ser	Seminar/ Workshop	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.	Certificate Course on Professional GIS	CE
5.	Certificate Course on Professional Building and Bridge Design using ETABS and SAP 2000	CE
6.	Professional Training Program on Environmental Management in Export Processing Zones of Bangladesh	CE
7.	Building Construction and quality control	CE
8.	Workshop on Seismic Performance Assessment and Design of Structure'	CE
9.	Professional Training Course on Promotion of Industrial, Social and Environmental Standards in EPZs of Bangladesh	CE
10.	Seminar on Cyber Security	CSE
11.	Technical Session on Innovation for Smart Green Building Project	CSE
12.	18th International Conference on Computer and Information Technology (ICCIT-2015)	CSE
13.	Cloud Technology- A New Dimension in Computing	CSE
14.	Short Course on Mobile Application Development-2015	CSE
15.	Lecture Session on "Brain Machine Interface (BMI)" (Advancement of Human Machine Interface for Rehabilitation Engineering)	CSE
16.	Lecture Session on #CODESPARK- Be the Spark of tomorrow by Microsoft of Bangladesh	CSE
17.	Short Course on Microcontroller and Robotics	EECE
18.	International Conference on Electrical Engineering and Information & Communication Technology (iCEEiCT-2014)	EECE
19.	Workshop on Technique Electrical Power Quality Understanding, Standard, Events, Analysis and Mitigation Techniques	EECE
20.	Effective Academic and Review Manuscript Writing	EECE
21.	Past, Present and Future Trend of Automobiles	ME
22.	Scope of Mechanical Engineers in Power Plant	ME
23.	Workshop on Remote Controlled Aircraft Design, Fabrication and Operation	AE
24.	Short Course on Ship Design Using Software (MAXSURF)	NAME
25.	The Essential Prerequisite for Effective Healthcare in Bangladesh	BME
26.	Seminar on Bio Safety Awareness: A Pathway to Improved Public Health	BME
27.	Challenges and Future Prospects in the Sectors of Environment, Water Resources, and Coastal Zones: Perspective from Potential Engineers	EWCE
28.	Perspective Future of Nuclear Engineering in Bangladesh	NSE
29.	Seminar on "Nuclear Energy in Bangladesh and Safety Issues	NSE
30.	Workshop on "Nuclear Engineering"	NSE

LABORATORY FACILITIES

CE Department

- Transportation Engineering Laboratory
- Geotechnical Engineering Laboratory
- Concrete Laboratory
- Solid Mechanics Laboratory
- Survey and Mapping Laboratory
- Drawing Laboratory

CSE Department

- Artificial Intelligence and VLSI Laboratory
- Network Laboratory
- Micro Processor & Micro Controller Laboratory
- Digital Electronics Laboratory
- Software Engineering Laboratory
- Multimedia Design & Graphics Laboratory
- Image Processing Laboratory
- Interfacing Laboratory
- MIST IT Cell and Central Server Room

EECE Department

- Electrical Circuit Laboratory
- Electrical Circuit Simulation Laboratory
- Computer Programming Laboratory
- Electrical Machine Laboratory
- Power System Laboratory
- Electronics & Digital Electronics Laboratory
- Electronics Circuit Simulation Laboratory
- Power Electronics Laboratory
- Instrumentation & Measurement Laboratory
- Communication Laboratory
- Digital Signal Processing Laboratory
- Microprocessor and interfacing Laboratory
- Control System Laboratory
- Switch Gear & Protection Laboratory
- VLSI Laboratory
- Digital Communication Laboratory
- Power System Protection Laboratory
- Microwave Engineering Laboratory
- Numerical Methods Laboratory
- High Voltage Engineering Laboratory

ME Department

- Measurement & Quality Control Laboratory
- Thermodynamics Laboratory
- Refrigeration & Air Conditioning Laboratory
- Heat Transfer Laboratory
- Energy Laboratory
- Machine Tools Laboratory
- Material Production Process Laboratory
- Drawing Shop (CAD Lab)
- 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

- Ship Design Laboratory
- Marine Machinery Laboratory
- Computer Aided Ship Design Laboratory
- Heat Engine Laboratory
- Ship Structure & Fabrication Laboratory
- Instrumentation Laboratory
- Refrigeration & Air Conditioning Laboratory
- Fluid Mechanics Laboratory
- Applied Mechanics Laboratory

NSE Department

- Modeling and Simulation Lab
- Health/Nuclear Physics Lab
- Radiation/Medical Physics Lab
- Radiochemical Lab

Arch Department

- Design Studios
- Computer Lab

EWCE Department

- Environmental Engineering Laboratory
- Water Resource Engineering Laboratory

Sc& Hum Department

- Chemistry Laboratory
- Physics Laboratory

FACULTY MEMBERS

A group of qualified faculties drawn from military as well as from civil society including international arena are relentlessly engaged in imparting knowledge to the students. In addition, teachers from reputed universities take classes on particular subjects/ courses. Guest speakers/teachers from various organisations/institutions/universities are also invited to participate in teaching programs, lecturers, seminars etc. At present, the state of Instructors/ teachers of MIST are as follows:

Appt	**Armed Forces**	**MIST**			**From Other Universities**	**Total**
		Civil Faculties				
		Permanent	Contract	MIST		
Professor	17(2*)	01*	06*	-	19*	43
Associate Professor	17(1*)	02*	01	-	10*	30
Assistant Professor	49(24*)	01	03	-	12*	65
Lecturer	27	05	02	41	03	78
Total	**110**	**09**	**12**	**41**	**44**	**216**

NUMBERS AND DURATION OF TERMS

There are two regular terms each of 22 weeks duration in an academic year for all engineering programs. Classes of each academic year normally start in the 1st weeks of February. The academic activities are conducted as per academic calendar approved by Academic Council of MIST before commencement of the programs.

Ser	Events	Duration (Weeks)
1.	Classes	07
2.	Mid Term Break	01
3.	Classes	07
4.	Recess before Term Final Examination	02
5.	Term Final Examination	03
6.	Term End Break	02
Total:		**22**

RECOGNITION OF PERFORMANCE

Osmany Memorial Gold Medal

Awarded to the best student amongst all the MIST Medal holders.

MIST Medal

Awarded to all students earning CGPA 4 at the end of the entire program and the first position holder in each department earning a minimum CGPA of 3.80

Commandant's List

- All students earning CGPA ≥ 3.8 at the end of each academic level for level 1, 2 and 3
- All graduating students earning CGPA ≥ 3.8 considering results of entire program (level 1 to 4)

Dean's List

- All students earning 3.7 ≤ CGPA < 3.8 at the end of each academic level for level 1, 2 and 3
- All graduating students earning 3.7 ≤ CGPA < 3.8 considering results of entire program (level 1 to 4)

Scholarships and Stipends

- Chancellor's(BUP) Scholarship
- Vice Chancellors (BUP) Scholarship/ Stipend
- MIST Scholarship
- MIST Stipends
- Osmany Memorial Trust Scholarship
- Buro Bangladesh Stipend
- Chief of Army Staff Scholarship
- Chief of Army Staff Stipend
- Chief of Naval Staff Scholarship
- Chief of Air Staff Scholarship
- Brig Gen Kamal Scholarship
- Brig Gen Kamal Stipend

ELIGIBILITY FOR ADMISSION TEST

Bangladeshi Students

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

a. SSC and HSC Examination (or Equivalent). The applicant must have passed SSC/equivalent examination in Science Group obtaining GPA 4.00 (without fourth subject) in the scale of 5.0 and in HSC/equivalent examination the applicant must obtain minimum total grade point 22 in five subjects (Mathematics, Physics, Chemistry, English, and Bangla) having minimum 'A' grade in Mathematics, Physics, and Chemistry.

b. GCE ('O' and 'A' Levels or Equivalent). The applicant must have qualified in minimum five subjects including Mathematics, Physics, Chemistry and English Language with minimum 'B' in average in GCE 'O' Level and in 'A' level he/she must have obtained minimum 'B' in Mathematics, Physics, and Chemistry.

c. HSC Passing Year. Applicant must have passed HSC/ Equivalent in **2014 or 2015** (From next academic year only current year applicant will be allowed to apply).

Foreign Students

Maximum 3% of overall vacancies available will be kept reserved for the foreign students and will be offered to foreign countries through AFD of the Government of the People's Republic of Bangladesh. Applicants must fulfil the following requirements:

- Educational qualifications as applicable for Bangladeshi civil students or equivalent.
- Must have security clearance from respective Embassy/ High Commission in Bangladesh.

* Sex: Male and female.

NUMBER OF SEATS

There are two units: Unit **A** (**Engineering Program**) and Unit **B (Architecture)** in MIST admission test. The departments are shown in the following table with respective units.

Serial	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 (EWCE)	40
10		Petroleum and Mining Engineering (PME)	60
11		Industrial and Production Engineering (IPE)	60
12	**B**	Architecture (ARCH)	25

Total number of seats is not fixed. Total no of seats is approximately 600 (May vary slightly). In general about 50% seats will be allocated to military officers. However, in case of the requirement of military students vacancy is less in any particular year, the deficient vacancy will be filled up by civil students. MIST also maintains quota for children of military personnel (40%), children of freedom fighters (2%), tribal citizen (1%) and foreign students (3%).

SUBMISSION OF APPLICATION- 2015

Instructions for Submission of e-Application

Application for the Admission Test- 2015 in MIST will be accepted only through online system from 26 Sep to 15 Oct 2015. No manual application will be accepted unless there is some system difficulty in application process. An applicant needs to deposit Tk. 750 (Seven hundred Fifty) for unit A and 1050 (One thousand and Fifty) 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. 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- 2015' very carefully. They may also take the printout of the instructions. Following steps to be followed to submit the application for the MIST Admission Test- 2015. For female candidates the words he and his will mean she and her.

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/ Alim/ Equivalent) Examination Applicants' or 'Online Application Form for GCE (A Level/ Equivalent) Applicants'. Click 'Next'.

1. For General Education (HSC / Alim / 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 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 / equivalent and HSC / 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 drop down menu among Unit A (Engineering Programs); Unit B (Architecture Program) and Unit A+B (Engineering and Architecture Programs).

ii. **Category of Candidature**. There are four options; General, Children of Freedom Fighters, Tribal Citizen and Children of Military Personnel. An applicant needs to select one from drop 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 drop down menu.

iv. **Contact Cellphone Number.** The applicant must give a valid contact **cellphone number** of any operator (GP, Banglalink, Airtel, CityCell, TeleTalk etc.) through which subsequent communication can be made. This mobile number is very important for subsequent communication (eg confirmation of receipt of application, eligible candidate list for admission test, admission test results etc.) with the applicant.

c. **Upload Photo & Signature.** An applicant is required to prepare two jpg format files each containing passport size photo (with exactly 300X300 pixel and maximum 100 KB size) and his signature (with exactly 300X80 pixel and maximum 60 KB size). He is to select 'Browse' button and upload the photo and signature from the drive/location. To resize applicant can take help from the link www.picresize.com.

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

e. **Declaration**. Read the statement of confirmation declaring the correctness of the given information. If you are agreed to the statement, the applicant needs to check on the 'Radio' button. Then click on the 'Submit' button.

2. For GCE (A Level/ Equivalent) Applicants.

a. **Applicant's Required Informations**. The applicant needs to type his name, father's name, mother's name. He needs to select date of birth from the 'drop 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 drop down menu among Unit A (Engineering Programs); Unit B (Architecture Program) and Unit A+B (Engineering and Architecture Programs).

c. **Category of Candidature**. There are four options; General, Children of Freedom Fighters, Tribal Citizen and Children of Military Personnel. An applicant needs to check the appropriate 'Radio' 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 drop Down menu.

e. **Contact Cellphone Number**. The applicant must give a contact cellphone number of any operator (GP, Banglalink, Airtel, CityCell, Teletalk, etc) through which subsequent communication can be made. This mobile number is very important for subsequent communication (e.g. confirmation of receipt of application, eligible candidate list for admission test, admission test results etc) with the applicant.

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

g. **Upload Photo & Signature**. An applicant is required to prepare two jpg format files each containing passport size photo (with exactly 300X300 pixel and maximum 100 KB size) and his signature (with exactly 300X80 pixel and maximum 60 KB size). He is to select 'Browse' button and upload the photo and signature from the drive/location. To resize applicant can take help from the link www.picresize.com.

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

i. **Confirmation**. Read the statement of confirmation declaring the correctness of the given information. If agreed to the statement, the applicant needs to check on the 'Radio' button. Then click on 'Submit'.

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 cellphone phone within 24 hours from time of application as mentioned on your receipt (Student's Copy).

Step 2: Depositing Application Fee through SMS

4. Application Fees. Each applicants needs to deposit Tk. 750 (Seven hundred Fifty) for UNIT A (ONLY ENGINEERING PROGRAMS) and 1050 (One thousand and Fifty) for UNIT B (ARCHITECTURE) and A+B both units only as application fee through SMS from TeleTalk prepaid mobile phone within 24 (Twenty Four) 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. Submission of Certificates. Applicants of the categories of Children of Freedom Fighters (F), Tribal Citizen (T) and Children of Military Personnel (M) must sent a scan copy of required certificate/documents to mistadmission@mist.ac.bd or submit to MIST admission desk (Room 201, Tower Building-1) physically within 1430 hours by 25 October 2015. Required certificate/ documents are:

a. **Children of Freedom Fighters**. Attested copies of Freedom Fighter certificate of parents, issued by the Ministry of Freedom Fighters Affairs, People's Republic of Bangladesh.
b. **Tribal Citizen**. Attested copies of tribal citizen certificate issued by local UP chairman and countersigned by concerned Deputy Commissioner (DC).
c. **Children of Military Personnel**. For children of military personnel, 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).
d. The submission of application of quota applicants i.e. Children of Freedom Fighters, Tribal Citizen and Children of Military Personnel will not be completed without submitting the supporting certificates/documents by 25 October 2015.

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 'MIST Admission Desk' (Room 201, Tower Building-1). Contact: mistadmission@mist.ac.bd Phone: 01556-565566, 01769-023896, 8000266

ADMISSION TEST

Selection of Candidates

1. A merit list of eligible candidates will be prepared on the basis of total GPA of Mathematics, Physics, Chemistry and one-third GPA of English earned in HSC/ Alim/ equivalent examination. Out of the merit list only short listed (approximately 6500) candidates will be allowed to take part in the written admission test of three hours (For Unit A) and 3+1=4 hrs (For Unit B and Unit A+B). However, all eligible candidates of reserved seats (Children of Military Personnel, Children of Freedom Fighters, Tribal Citizens) and all eligible applicants with GCE 'A' level/ equivalent background shall also 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). Question for written test will be based on the syllabus of HSC examination-2015. The marks distribution for both units is as follows:

Ser	Module	Subject	Marks	Remarks
1.	1 (for unit A)	Mathematics	80	Total Marks: 200 Exam Duration: 3 hrs
2.		Physics	60	
3.		Chemistry	40	
4.		Functional English	20	
5.	2 (for unit B)	Drawing and Architecture related topics	100	Total Marks: 100 Exam Duration: 3 + 1 hrs

3. Those who choose only departments of unit A, will only sit for the admission written test of Question Module 1 for **THREE** hours. Those who choose only unit B (Architecture) and both A and B (Engineering and Architecture) will sit for question module 1 and 2, with a adequate break.

4. Important Dates

Application Submission	From 26 September to 20 October 2015 (up to midnight 12 Bangladesh time).
List of eligible candidates	6 Nov 2015
Written admission test. For unit A	0900 – 1200 hours on 13 November 2015 (Friday).
Written Admission test. For Unit B and (A+B)	0900 – 1200 hours and 1500-1600 hours on 13 November 2015 (Friday).

FINAL SELECTION

1. Minimum qualifying marks in the written admission test is 40% for both question module 1 and 2. But in special circumstances for fulfilment of specified number of seats, President Admission Committee may consider relaxation of this condition. Merit list of candidates for final selection and admission to MIST will be prepared on the basis of the following:

2. Unit A (Engineering) and Unit B (Architecture).

Written Admission Test.	75%
Total GPA of Mathematics, Physics and Chemistry of HSC/A level/equivalent examination.	15%
GPA of SSC/O level/equivalent examination (without 4th subject)	10%

3. All applicants must obtain 40% of allocated marks separately for question module 1 and 2. A merit list will be generated based on aggregate marks for required vacancies.

4. 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 will be solved giving priority of result of HSC over SSC examination. The list of selected candidates for admission to MIST will be notified in the notice board, web site of MIST www.mist.ac.bd and by SMS to contact cellphone number given by the applicant.

ADMISSION PROCEDURE

Medical Check-up

Civil candidates selected provisionally are to undergo medical check-up at MIST medical centre. 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:

- Candidates have to complete admission formalities within a fixed period of time as decided by admission committee.
- Any candidate failing to complete admission formalities within the prescribed time will warrant cancellation of selection automatically.
- 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.
- Waiting lists will be prepared and displayed by the admission committee as per merit and be notified as per requirement.

Documents to be Submitted During Admission

- Original copies of certificates and mark sheet of SSC/ Dakhil or equivalent examination.
- Original copies of certificate and mark sheet of HSC / Alim or equivalent examination.
- Three copies of recent passport size coloured photograph of the candidate duly attested by class-I gazetted officer.
- Character certificate from the head of the last institute attended.
- Nationality Certificate from proper authority/Birth certificate/National ID Card.
- For the Children of Freedom Fighters original copies of Freedom Fighter certificate of parents, issued by the Ministry of Freedom Fighters Affairs, People's Republic of Bangladesh.
- For Tribal Citizen; original certificate as a tribal citizen issued by local UP chairman and countersigned by concerned District Commissioner (DC).
- 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 individual merit position in the admission test at the end of admission against total vacancies. 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 to be formulated by MIST authority from time to time.

WITHDRAWAL POLICY

The MIST has been established with an aim of providing quality education in various disciplines of Engineering leading to B.Sc. Engineering to be conferred by BUP. 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.

DEFINITION OF TERMS

Permanent Withdrawal

It will imply a complete/permanent discontinuity from any course/program of the institute.

Temporary Withdrawal

It 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 as set by the authority.

Permanent Expulsion

It 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.

Temporary Expulsion

It 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 fulfillment of other terms and conditions (if any) as set by the authority while approving the temporary expulsion order.

GENERAL POLICY OF WITHDRAWAL

The under graduate (B.Sc.) Engineering programs, all disciplines are planned for 04 regular levels, comprising of 08 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:

- Students failing in maximum three courses/subjects in any level, each comprising of two regular terms will be allowed to appear in the referred/re-examination on failed course(s)/subject(s) after a short term as per academic schedule.
- Referred/re-examination, after a short term is to be conducted within 02 (two) weeks of commencement of the next academic session at the latest.
- Students failing in maximum one course/subject in the referred/re-examination will be promoted to the next higher level. The failed course/subject will be termed as ‘Backlog’ subject and the students have to pass the ‘Backlog’ subject in the next scheduled referred/re-examination, but without any short term. Otherwise, S/he will be withdrawn permanently from the course/program.
- No student will be allowed to appear in the referred/re-examination in the same subject more than twice in the whole undergraduate program.
- Students in all levels will be allowed to appear in the referred/re-examination on two courses/subjects including the ‘Backlog’ one.
- Students will be promoted to the second term of each level irrespective of their results in the first term of the level.

- Students failing in three or more courses/subjects in any level, comprising of two regular terms, will be allowed to repeat the level once. Students repeating a level will be granted exemption for that/those subject(s) in which they earned 'B+' and above grade in the previous academic year.

- Students will be allowed to repeat a particular level only once in the whole undergraduate program.

- After level-4 referred/re-examination, if any military student fails in maximum one course/subject, but not the 'Backlog' subject, then S/he will leave MIST and will be allowed to appear in the next scheduled referred/re-examination of the respective course. In that examination if S/he cannot pass the course/subject, or if S/he does not appear in the referred examination within 06 (six) years of registration will lose the scope of completing graduation. This failure will also be recorded in the dossier of military student officers.

- 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 from the date of his/her registration.

- Whatever may be the cases, students have to complete the whole undergraduate program within 06 (six) academic years from the date of registration.

- Failure to secure/achieve minimum CGPA of 2.20 in two consecutive levels will also lead to withdrawal of the student from the program.

EXPULSION/ WITHDRAWAL ON DISCIPLINARY GROUND

Unfair Means

Adoption 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. Following would be considered as unfair means adopted during examinations and other contexts:

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

Influencing Grades

Academic council of MIST may expel/withdraw any student for approaching directly or indirectly in any form to influence a teacher or MIST authority for grades.

Other Indiscipline Behaviour

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

Immediate Action by the Disciplinary Committee of MIST

The disciplinary committee, MIST may take immediate disciplinary action against any student of the institution. In case of withdrawal/expulsion, the matter will be referred to the academic council, MIST for post-facto approval.

WITHDRAWAL ON OWN ACCORD

Permanent Withdrawal

A student who has already completed some courses and has not performed satisfactorily may apply for a permanent withdrawal.

Temporary Withdrawal

A student, if S/he applies, may be allowed to withdraw temporarily from the program, subject to the approval of academic council of MIST, but S/he has to complete the whole program within 06 (six) academic years from the date of his/her registration.

EXAMINATION SCHEDULE

Examination schedule of all programs run at MIST is strictly adhered to and is not changed under any circumstance. Students failing to appear at any examination will miss the grading / credit of the same.

FACULTY-STUDENT INTERACTIONS

The academic system in MIST encourages students to come in close contact with the faculties. For promotion of high level of faculty-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 faculties 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 organised in MIST where all faculty members, staffs and students are formed up, thereby increasing teacher-student interaction.

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 organisation 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.

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**
Ash coloured half sleeve shirt (tucked in), Black coloured full pants, Black Oxford shoes and Black socks.	Ash coloured full sleeve shirt (tucked in), Black coloured full pants, 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 (Normal)

TUITION AND OTHER FEES

All civil and military students (where applicable) will be required to pay tuition and other fees as follows (subject to amendment from time to time):

	Category	Amount (tk)
Once during admission	Admission Fee	11,000
	Registration Fee	450
	Security Money/ Caution Money	25,000
	Library Fee	5,000
	Identity Card Fee	100
	Transportation Fee	1,500
Term wise	Tuition Fee	2,100
	Lab & Training Equipment Maintenance Fee	1,500
	Medical Fee	2,100
	Sports Fee	750
	Students Welfare Fee	2,400
	Course Registration Fee	5,250
	Exam Fee	3,000
	Centre Fee	1,000
	Grade Sheet Fee	500
Yearly	Education Development Charge (Govt Employee)	15,000
	Education Development Charge (others)	30,000

HALL CHARGES

(For residential civil students)

Ser	Category	Amount (tk)	Remarks
1.	Security Deposit (One time)	5,000	Refundable
2.	Mess Advance (One time)	5,000	Refundable
3.	Admission Fee	1,000	for 1st time
4.	Re-admission Fee	500	each yers once
5.	Identity Card	100	for each time
6.	Establishment Charge	1,750	Monthly
7.	Seat Rent	300	,,
8.	Electricity, gas and water bill charge	250	,,
9.	Common Room Subscription	100	,,
10.	Contingencies/Misc	100	,,
11.	Messing	As per Mess bill	,,

Total Charges:

1. **For children of govt employee total charges- 2,56,350/- (In 4 years course)**
2. **For others total charges- 3,16,350/- (In 4 years course)**

Note :

3. **Two pairs of uniforms will be provided by MIST tailor shop costing approximately tk. 3000/-**

FINANCIAL TERMS AND CONDITIONS FOR FOREIGN STUDENTS

Ser	Category of Fees	Foreign Student Fees (USD)*	BDT	Remarks
1.	Admission Fee	200	15,800	Paid once
2.	Re-Admission Fee	100	7,900	When applicable
3.	Tuition Fee	12 x 4 x 4 = 192	15,168	Quarterly Basis
4.	Security Money	300	23,700	Refundable
5.	Library Fee	51	4,029	Paid once
6.	Registration Fee	10	790	Paid once
7.	Exam Fee	40 x 8 =320	25,280	Eight-term Exam
8.	Centre Fee	6.5 x 8 = 52 (For each referred exam additional 20 to be paid)	4,108	Eight-term Exam
9.	Grade Sheet Fee	5 x 8 = 40	3,160	Eight-term Exam
10.	General Medical Fee (Excluding Critical/special cases)	20 x 4 x 4=320	25,280	Quarterly Basis
11.	Sports Fee	5 x 4 x 4 = 80	6,320	Quarterly Basis
12.	Students Welfare Fee	20 x 4x 4 = 320	25,280	Quarterly Basis
13.	Course Registration Fee	30 x 8 =240 (Approx)	18,960	Term Wise
14.	Laboratory and Training Maint Fee	16 x 8 = 128 (Approx)	10,112	Term Wise
15.	Accommodation Fee	50 x 12 x 4 =2400 (bachelor/married bachelor)	1,89,600	Monthly basis (Military & Civil) For Mil Officers Only
		450 x 12 x 4= 21,600 (Family)	17,06,400	
16.	Messing	75 x 12 x 4 = 3,600	2,84,400	For Civil Students (For regular meal only) **
17.	Laundry and Allied Charges	10x 12 x 4 = 480	37,920	Monthly basis
18.	Recreation Fee/ Study Tour	200 x 4 = 800 (Bachelor)	63,200	Yearly basis (Optional; only Interested persons will pay)
		300 x 4 = 1200 (Family)	94,800	
19.	MIST Uniform	12 x 5 sets = 60	4,740	
20.	Education Development Charge	475 x 4 = 1900	1,50,100	4 Years
Total (Bachelor)		**11,593**	**9,15,847**	
Total (Family)		**31,193**	**24,64,247**	

Assume

* = **1$ = 79 BDT (**It will be as per Bangladesh Bank, the day of payment.)

** = **$150 x 12 x 4 = 7,200** (Actual cost will be charged) (Tk 5,68,800.00) For **Military Officers** who will be staying in the Officers Mess.

*** = **RECIPROCAL** and **GRATIS** to be executed as per agreement/MoU or negotiable between the two friendly institution, organization, government authority.

N.B. Scholarship will be given to the meritorious students as per MIST Scholarship Policy.

PROGRAM REQUIREMENTS

Details of courses (subjects), contact hours, credit hours etc are shown separately at the end of this prospectus. However, these are subject to revision and updating prior to each academic year.

GRADING SYSTEM

Total performance of a student in a given program is based on a scheme of continuous assessment. For theory course, this continuous assessment is made through a set of class tests, evaluation, class participation, homework, assignment and term final examination. The assessment in sessional courses is made through observation of the student at work during the class, viva voce during lab hours, sessional reports and quizzes. Each course has a certain number of credits, which describes its corresponding weights. A letter grade with a specified number of grade point is awarded to each course for which a student is measured both by the number of credits completed satisfactorily and by the weighted average of the grade point earned. A minimum Grade Point Average (GPA) is essential for satisfactory progress. A minimum number of earned credits also have to be acquired in order to qualify for the degree. Letter grades and corresponding grade points is awarded in accordance with the provisions shown below:

Grade	Grade Points	Numerical Marking
A+	4.00	80% and above
A	3.75	75% to less than 80%
A-	3.50	70% to less than 75%
B+	3.25	65% to less than 70%
B	3.00	60% to less than 65%
B-	2.75	55% to less than 60%
C+	2.50	50% to less than 55%
C	2.25	45% to less than 50%
D	2.00	40% to less than 45%
F*	0.00	Below 40%
I	Incomplete	-
W	Withdrawn	-
X	-	Project/Thesis continuation

COURSE PATTREN AND CREDIT STRUCTURE

The program is covered by a set of theoretical courses along with a set of lab/ sessional (practical) courses to support them. The rules for assignment of credit are as follows:

- Theoretical Course - One contact hour of lecture per week per term is equivalent to one credit
- Sessional Courses - Credits for sessional course (practical class) are half of the contact hours per week per term
- Thesis/Project - Credits are also assigned to project and thesis works taken by the student. The amount of credits assigned to such works varies from one discipline to another

COURSE SYSTEM

- Introduction of letter grades and grade points instead of numerical grades following the guidelines of University Grant Commission (UGC)
- Continuous evaluation of student performance
- Promotion of student-teacher relation

COURSE DESIGNATION

- The first digit corresponds to the year/ level in which the students normally undertake the course
- The second digit is reserved for departmental uses. It usually identifies a specific area of study within the department
- The last digit is an odd number for theoretical course and an even number for sessional course

For example CE 361 means:

CE - Departmental identification (Civil Engineering Department)
3 - Signifies level of courses (Level- 3)
6 - Subject code (reserved for departmental use)
1 - Odd digit designates a theoretical course

DISTRIBUTION OF CREDIT HOURS

CE Department

Level	Term	Credit Hour
1	I	18.50
	II	22.00
2	I	20.00
	II	21.00
3	I	20.50
	II	22.50
4	I	21.50
	II	16.00
Total Credit Hours:		**162.00**

EECE Department

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

CSE Department

Level	Term	Credit Hour
1	I	17.50
	II	19.50
2	I	20.25
	II	21.50
3	I	20.25
	II	22.50
4	I	20.25
	II	19.25
Total Credit Hours:		**161.00**

ME Department

Level	Term	Credit Hour
1	I	18.75
	II	20.50
2	I	20.00
	II	20.75
3	I	20.50
	II	20.75
4	I	20.25
	II	19.75
Total Credit Hours:		**162.00**

AE Department

Level	Term	Credit Hour	
		Aerospace	Avionics
1	I	20.25	20.25
	II	21.25	21.25
2	I	18.25	21.25
	II	21.75	19.50
3	I	21.50	20.50
	II	20.00	19.00
4	I	20.25	20.25
	II	18.75	20.25
Total Credit Hour:		**162.00**	**161.50**

B. Arch Department

Level	Term	Credit Hour
1	I	19.00
	II	19.00
2	I	19.00
	II	19.50
3	I	19.50
	II	21.50
4	I	21.50
	II	21.50
5	I	21.50
	II	20.00
Total Credit Hours:		202.00

NAME Department

Level	Term	Credit Hour
1	I	19.50
	II	20.25
2	I	20.25
	II	20.25
3	I	20.25
	II	20.25
4	I	21.00
	II	19.50
Total Credit Hours:		**161.25**

NSE Department

Level	Term	Credit Hour
1	I	18.75
	II	20.25
2	I	18.75
	II	20.50
3	I	20.00
	II	19.00
4	I	21.00
	II	19.50
Total Credit Hours:		157.75

BME Department

Level	Term	Credit Hour
1	I	20.00
	II	18.50
2	I	22.50
	II	18.50
3	I	19.50
	II	21.00
4	I	24.00
	II	21.00
Total Credit Hours:		**165.00**

IPE Department

Level	Term	Credit Hour
1	I	20.25
	II	20.50
2	I	21.00
	II	19.00
3	I	19.00
	II	18.50
4	I	22.25
	II	19.50
Total Credit Hours:		160.00

EWCE Department

Level	Term	Credit Hour
1	I	18.50
	II	21.00
2	I	21.50
	II	19.50
3	I	19.50
	II	23.00
4	I	20.00
	II	19.50
Total Credit Hours:		**162.50**

PME Department

Level	Term	Credit Hour
1	I	19.75
	II	18.75
2	I	19.00
	II	20.25
3	I	20.25
	II	21.50
4	I	21.75
	II	20.50
Total Credit Hours:		161.75

Note: Minimum credit hour for awarding Engineering Degree for all departments is **157**.

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%	90%
80% to less than 85%	80%
75% to less than 80%	70%
70% to less than 75%	60%
65% to less than 70%	50%
60% to less than 65%	40%
Below 60%	00%

Sessional Courses

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

CALCULATION OF GPA AND CGPA

Grade Point Average (GPA) is the weighted average of the grade points obtained in all the courses passed/completed by a student. For example, if a student passes/completes n courses in a term having credits of C_1, C_2, … , Cn and his grade points in these courses are G_1, G_2, … , Gn respectively then:

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

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 TC_1, TC_2, … , TC_n and his GPA in these terms are GPA_1, GPA_2, … , GPA_n respectively then:

$$CGPA = \frac{\sum_{i=1}^{n} TC_i * GPA_i}{\sum_{i=1}^{n} TC_i}$$

EXAMINATION SYSTEM

Home Work/ Assignment .

Individual teacher will decide

Number of Class Test

n + 1, where, n = no of credit hours of the course

Final Examination

Written examination for theory courses (Sec A + Sec B)

Referred/Short Term

For failed students as per Examination Policy

REFERRED/ SHORT TERM EXAMINATION

Those who will not be able to clear all the subjects will require to appear in the Referred/ Short Term Examination fulfilling the conditions as per examination policy.

PICTURE GALLERY

GRADUATION CEREMONY

REGULATORY BODIES MEETING

SEMINAR ON "THE ESSENTIAL PREREQUISITE FOR EFFECTIVE HEALTHCARE IN BANGLADESH"

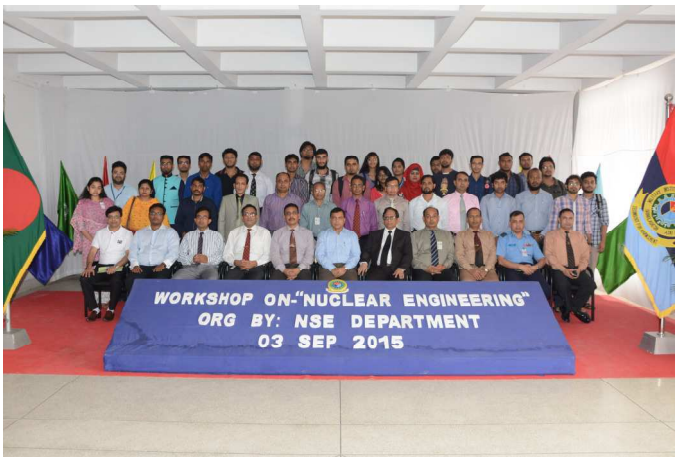
CERTIFICATE AWARDING CEREMONY OF "BASIC ICT TRAINING FOR BEPZA OFFICIALS"

SEMINAR ON "PERSPECTIVE FUTURE OF NUCLEAR ENGINEERING IN BANGLADESH"

SEMINAR ON “SCOPE OF MECHANICAL ENGINEERS IN POWER PLANT”

WORKSHOP ON “REMOTE CONTROLLED AIRCRAFT DESIGN, FABRICATION AND OPERATION”

1ST REGIONAL SEMINAR ON “CLIMATE CHANGE, WATER SECURITY AND PROSPECTS OF RAINWATER IN BANGLADESH”



WORKSHOP ON “NUCLEAR ENGINEERING”

INAUGURATION CEREMONY OF 1ST BATCH OF M. Sc & Ph. D PROGRAM FOR NSE & BME

MoU SIGINING CEREMONY BETWEEN MIST AND ACTIVE FINE CHEMICALS (AFC)

MoU SIGINING CEREMONY BETWEEN MIST AND OHIO STATE UNIVERSITY (USA)

ACCREDITATION VISIT TO MIST

VISIT OF BRUNEI ARMED FORCES DELEGATION TO MIST

VISIT OF MIST FACULTIES TO CANADA

VISIT OF MIST FACULTIES TO MALAYSIA

SHORT COURSE ON MICROCONTROLLER & ROBOTICS

PARTICIPATION IN THE FUTURE FLIGHT DESIGN COMPETITION- 2015

UNIVERSITY ROVER CHALLENGE (URC) COMPETITION- 2014 & 2015 AT USA

1ST NATIONAL AERO-DESIGN COMPETITION AND EXHIBITION

PARTICIPANTS OF MIST IN SAE AERO-DESIGN COMPETITION-2014, USA

INTER-DEPT ATHLETICS COMPETITION-2015

INTER-DEPT TABLE TENNIS COMPETITION-2015

INTER-DEPT FOOTBALL COMPETITION-2015

INTER-DEPT VOLLYBALL COMPETITION-2015 (MALE & FEMALE STUDENTS)

COMMANDANT VISITING THE DISCIPLINEOF STUDENTS

CLASS IN PROGRESS

SESSIONAL IN PROGRESS

CONCRETE LAB

INTER FACING LAB

HEAT ENGINE LAB

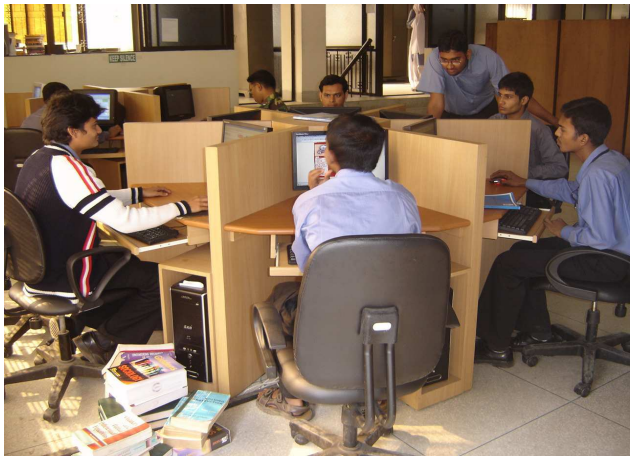
PHYSICS LAB

JOB FAIR

NOBIN BORON-2015

POHELA BOISHAKH-1422

READING ROOM



CYBER CENTRE

MEDICAL CENTER

CENTRAL LIBRARY

FITNESS CENTER

MIST CAFETERIA

TEACHERS' ACCOMMODATION

SHAPLA

POLASH

STUDENTS' ACCOMMODATION


MALE WING


FEMALE WING

CIVIL ENGINEERING

Total Credit Hours: 162

Level-1, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
Phy 101	Physical Optics, Waves and Oscillation, Heat and Thermodynamics	3	3
Math 137	Differential and Integral Calculus, Matrices	3	3
Hum 185	English	2	2
Hum 155/Hum 165/Hum 175	Sociology/Government/Moral Philosophy	2	2
CE 101	Analytical Mechanics	4	4
Hum 186	Developing English Langauge Skills	3	1.5
Shop 132	Workshop Sessional	3	1.5
CE 100	Civil Engineering Drawing	3	1.5
	Total:	23	18.5

Level-1, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
Phy 105 / Chem 105	Structure of Matter, Electricity and Magnetism and Modern Physics / Chemistry II	3	3
Chem 103	Chemistry I	3	3
Math 139	Differential Equations and Statistics	3	3
EECE 165	Basic Electrical Technology	3	3
CE 103	Surveying and spatial information Engineering	4	4
Phy 102	Physics Laboratory	3	1.5
Chem 114	Inorganic Quantitative Analysis	3	1.5
CE 102	Computer Aided Drawing	3	1.5
CE 104	Practical Surveying	3 weeks	1.5
	Total:	25	22

Level-2, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
Hum 217	Engineering Economics	2	2
Math 237	Laplace Transform and Vector Analysis	3	3
CE 203	Engineering Geology & Geomorphology	3	3
CE 211	Mechanics of Solids I	3	3
CE 261	Fluid Mechanics	3	3
CE 200	Details of Construction	3	1.5
CE 204	Computer Programming Sessional	3	1.5
CE 210	GIS and Remote sensing	3	1.5
CE 262	Fluid Mechanics Sessional	3	1.5
	Total:	26	20

Level-2, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
Hum 253	Accounting	2	2
CE 201	Engineering Materials	4	4
CE 205	Numerical Method	2	2
CE 207	Applied Mathematics for Engineers	3	3
CE 213	Mechanics of Solids II	3	3
CE 206	Engineering Computations Sessional	3	1.5
CE 208	Quantity Surveying	3	1.5
CE 212	Structural Mechanics & Materials Sessional	3	1.5
CE 214	Architechtural, Engineering and Planning Appreciation	2	1.5
	Total:	25	20

Level-3, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
CE 311	Structural Analysis & Design I	4	4
CE 315	Design of Concrete Structures I	3	3
CE 331	Environmental Engineering I	3	3
CE 341	Principle of Soil Mechanics	4	4
CE 301	Professional Practices & Communication	2	2
CE 302	Professional Practices & Communication Sessional	3	1.5
CE 332	Environmental Engineering Laboratory	3	1.5
CE 342	Geotechnical Engineering Laboratory	3	1.5
	Total:	25	20.5

Level-3, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
CE 317	Design of Concrete Structures II	4	4
CE 319	Design of Steel Composite Structures	3	3
CE 333	Environmental Engineering II	4	4
CE 351	Transportation Planning & Traffic Engineering	3	3
CE 361	Open Channel Hydraulics	3	3
CE 316	Concrete Structures Design Sessional I	3	1.5
CE 320	Steel Structures Design Sessional	3	1.5
CE 362	Open Channel Hydraulics Sessional	3	1.5
CE 300	Civil Engineering Students' Internship Programme (CESIP)	4 Weeks	1
	Total:	26	22.5

Level-4, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
CE 401	Project Planning & Construction Management	3	3
CE 411	Structural Analysis & Design II	3	3
CE 441	Foundation Engineering	3	3
CE 451	Traffic Performance and Pavement Design	4	4
CE 463	Hydrology and Irrigation Engineering	4	4
CE 452	Highway Materials and Transport Design Sessional	3	1.5
CE 410	Concrete Structures Design Sessional II	3	1.5
CE 400	Project & Thesis	3	1.5
	Total:	26	21.5

Level-4, Term-II

Compulsory Courses

Course Code	Course Name	Contact Hour	Credit Hour	Remarks
CE 400	Project & Thesis	6	3	
CE 403/ CE 405	Socio-economic Aspects of Development Project/Business and Career Development	2	2	
CE-408	Modeling of Environmental and Water Resources Engineering	2	1	

Structural Engineering

Course Code	Course Name	Contact Hour	Credit Hour	Remarks
CE 413	Design of Steel-Concrete Composite Structure	2	2	
CE 415	Prestressed Concrete	2	2	
CE 417	Design of Concrete Structures III	2	2	
CE 419	Introduction to Finite Element Method	2	2	
CE 421	Dynamics of Structures	2	2	
CE 423	Structural Safety	2	2	
CE 425	Seismic Design of Structures	2	2	
CE 412	Computer Aided Analysis and Design of Structures Sessional	3	1.5	

Environmental Engineering

Course Code	Course Name	Contact Hour	Credit Hour	Remarks
CE 433	Solid and Hazardous Waste Management	2	2	
CE 435	Environmental Pollution and Management	2	2	
CE 431	Natural Resources and Renewable Energy	2	2	
CE 437	Climate Change and Disaster Management	2	2	
CE 439	Environmental Impact Assessment	2	2	
CE 432	Design of Water Supply, Sanitation and Sewerage Systems	3	1.5	

Geotechnical Engineering

Course Code	Course Name	Contact Hour	Credit Hour	Remarks
CE 443	Earth Retaining Structures	2	2	Select Any Two
CE 445	Elementary Soil Dynamics	2	2	
CE 447	Soil-Water Interaction	2	2	
CE 442	Geotechnical Engineering Design Sessional	3	1.5	Geotech Sessional

Transportation Engineering

Course Code	Course Name	Contact Hour	Credit Hour	Remarks
CE 453	Traffic Engineering Design and Management	2	2	
CE 455	Pavement Management, Drainage and Airport Engineering	2	2	
CE 457	Urban Transportation Planning & Management	2	2	
CE 459	Intelligent Transportation System	2	2	
CE 461	Railway Engineering	2	2	
CE 454	Traffic Studies and Pavement Design Sessional	3	1.5	

Water Resources Engineering

Course Code	Course Name	Contact Hour	Credit Hour	Remarks
CE 465	Groundwater Engineering	2	2	
CE 467	Flood Mitigation and Management	2	2	
CE 469	River Engineering	2	2	
CE 471	Hydraulic Structures	2	2	
CE 473	Coastal Engineering	2	2	
CE 472	Design of Hydraulic Structures	3	1.5	
*Select Any Two Engineering Combination				
Total		26	18.5	(5+5.5+5.5)
G Total		**200**	**162**	

* If required courses can be interchanged between terms of a level without changing syllabus

** If required courses other than major and minor groups can be offered in the final term

COMPUTER SCIENCE AND ENGINEERING

Total Credit Hours: 161

Level-1, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
CSE-100	Introduction to Computer Systems Sessional	3.00	1.50
EECE-163	Electrical Circuit Analysis	3.00	3.00
EECE-164	Electrical Circuit Analysis Sessional	3.00	1.50
ME-181	Basic Mechanical Engineering	2.00	2.00
MATH-141	Mathematics-I (Differential Calculus and Integral Calculus)	3.00	3.00
PHY-103	Physics	3.00	3.00
PHY-104	Physics Sessional	1.50	0.75
HUM-101	English	2.00	2.00
Shop-140	Workshop Practice Sessional	1.50	0.75
Total		22	17.5

Level-1, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
CSE-101	Discrete Mathematics	3.00	3.00
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	3.00	1.50
CE-150	Engineering Drawing & CAD Sessional	3.00	1.50
CHEM-101	Chemistry	3.00	3.00
MATH-143	Mathematics-II (Ordinary and Partial Differential Equations and Coordinate Geometry)	3.00	3.00
Total:		24	19.5

Level-2, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
CSE-201	Digital Logic Design	3.00	3.00
CSE-202	Digital Logic Design Sessional	3.00	1.50
CSE-203	Data Structures	3.00	3.00
CSE-204	Data Structures Sessional	3.00	1.50
CSE-205	Object Oriented Programming Language	3.00	3.00
CSE-206	Object Oriented Programming Language Sessional	3.00	1.50
EECE-269	Electrical Drives and Instrumentation	3.00	3.00
EECE-270	Electrical Drives and Instrumentation Sessional	1.50	0.75
MATH-245	Mathematics-III (Vector Analysis, Matrices and Fourier Analysis)	3.00	3.00
Total:		25.5	20.25

Level –2, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
CSE-210	Assembly Language Programming Sessional	3.00	1.50
CSE-211	Digital Electronics and Pulse Technique	3.00	3.00
CSE-212	Digital Electronics and Pulse Technique Sessional	1.50	0.75
CSE-213	Computer Architecture	3.00	3.00
CSE-215	Algorithms	3.00	3.00
CSE-216	Algorithms Sessional	3.00	1.50
CSE-217	Theory of Computation	3.00	3.00
CSE-220	Object Oriented Programming language Sessional-II	1.50	0.75
MATH-247	Mathematics-IV (Complex Variable and Laplace Transform)	3.00	3.00
HUM-215	Engineering Ethics	2.00	2.00
Total:		26	21.5

Level-3, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
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 and Micro-controller	3.00	3.00
CSE-306	Microprocessors and Micro-controller Sessional	1.50	0.75
CSE-307	Operating System	3.00	3.00
CSE-308	Operating System Sessional	1.50	0.75
CSE-309	Computer Network	3.00	3.00
CSE-310	Computer Network Sessional	3.00	1.50
	Total:	**25.5**	**20.25**

Level-3, Term II

Course Code	Course Name	Contact Hour	Credit Hour
CSE-311	Numerical Analysis	3.00	3.00
CSE-313	Mathematical Analysis for Computer Science	3.00	3.00
CSE-315	Digital System Design	3.00	3.00
CSE-316	Digital System Design Sessional	1.50	0.75
CSE-317	Data Communication	3.00	3.00
CSE-318	Data Communication Sessional	1.50	0.75
CSE-319	Software Engineering	3.00	3.00
CSE-322	Software Development Sessional	3.00	1.50
HUM-315	Engineering Economics	2.00	2.00
HUM-312	English Sessional	3.00	1.50
Total:		26	21.5

*LEVEL-3 INDUSTRIAL TRAINING

Course Code	Course Name	Contact Hour	Credit Hour
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	Credit Hour
CSE-400	Project and Thesis	6.00	3.00
CSE-401	System Analysis, Design and Development	3.00	3.00
CSE-402	System Analysis, Design and Development Sessional	1.50	0.75
CSE-403	Artificial Intelligence	3.00	3.00
CSE-404	Artificial Intelligence Sessional	1.50	0.75
CSE-405	Computer Interfacing	3.00	3.00
CSE-406	Computer Interfacing Sessional	1.50	0.75
CSE-407	Applied Statistics and Queuing Theory	3.00	3.00
CSE-4XO	Option-I	3.00	3.00
Total:		25.5	20.25

Option-I

Course Code	Course Name	Contact Hour	Credit Hour
CSE-419	Advanced Algorithms	3.00	3.00
CSE-421	Basic Graph Theory	3.00	3.00
CSE-423	Fault Tolerant System	3.00	3.00
CSE-425	Basic Multimedia Theory	3.00	3.00
CSE-427	Digital Image Processing	3.00	3.00
CSE-429	Data and Network Security	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-441	Machine Learning	3.00	3.00

Level-4, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
CSE-400	Project and Thesis*	6.00	3.00
CSE-411	VLSI Design	3.00	3.00
CSE- 410	Software Development for Web Apps	1.50	0.75
CSE-413	Computer Graphics	3.00	3.00
CSE-414	Computer Graphics Sessional	1.50	0.75
HUM-415	Financial and managerial Accounting	2.00	2.00
CSE-417	Engineering Management	3.00	3.00
CSE-4XO	Option-II	3.00	3.00
CSE-4XE	Option-II Sessional	1.50	0.75
	Total	24.5	19.25

Option-II

Course Code	Course Name	Contact Hour	Credit Hour
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- 447	Telecommunication Engineering	3.00	3.00
CSE- 448	Telecommunication Engineering 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-453	Data Ware-housing and Data Mining	3.00	3.00
CSE-454	Data Ware-housing and Data Mining Sessional	1.50	0.75

ELECTRICAL, ELECTRONIC AND COMMUNICATION ENGINEERING

Total Credit Hours: 160

Level–1, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 101	Electrical Circuits I	3.00	3.00
EECE 102	Electrical Circuits and Simulation Lab-I	3.00	1.50
PHY 111	Phy I (Waves and Oscillation, Optics and Thermal Physics)	3.00	3.00
MATH 111	Differential and Integral Calculus	4.00	4.00
HUM-135	English	2.00	2.00
HUM-172	Developing English Skills Laboratory	3.00	1.50
HUM-127	Sociology/ Moral Philosophy	2.00	2.00
CE-152	Engineering Drawing	3.00	1.50
Total		**23.00**	**18.50**

Level–1, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 105	Electrical Circuits II	3.00	3.00
EECE 106	Electrical Circuit and Simulation Lab -II	3.00	1.50
PHY 113	Phy II (Electricity and Magnetism, Modern Physics and Mechanics)	3.00	3.00
PHY 114	Phy II Laboratory	3.00	1.50
MATH 115	Vector analysis, Matrices and Geometry	4.00	4.00
CHEM 101	Chem-I	3.00	3.00
CHEM 114	Inorganic & Quantitative Analysis Lab	3.00	1.50
HUM 179	Financial and Managerial Accounting	3.00	3.00
Total		**25.00**	**20.50**

Level–2, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 201	Electronics-I	3.00	3.00
EECE 202	Electronics Circuit and Simulation Lab -I	3.00	1.50
EECE 203	Electrical Machines-I	3.00	3.00
ME 263	Fundamental of Mechanical Engineering	3.00	3.00
ME 264	Fundamental of Mechanical Engineering Lab	3.00	1.50
MATH 211	Ordinary & Partial Differential Equation	3.00	3.00
CSE 209	Computer Programming	3.00	3.00
CSE 210	Computer Programming Laboratory	3.00	1.50
Total		**24.00**	**19.50**

Level–2, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 205	Electrical Machines II	3.00	3.00
EECE 206	Electrical Machines Laboratory	3.00	1.50
EECE 207	Electronics II	3.00	3.00
EECE 208	Electronics Circuit and Simulation Laboratory II	3.00	1.50
EECE 212	Numerical Technique Laboratory	3.00	1.50
MATH 213	Complex Variables and Statistics	4.00	4.00
HUM 277	Fundamental of Economics	3.00	3.00
EECE 217	Engineering Electromagnetic	3.00	3.00
Total		**25.00**	**20.50**

Level-3, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 301	Continuous Signals and Linear Systems	3.00	3.00
EECE 303	Digital Electronics	3.00	3.00
EECE 304	Digital Electronics Laboratory	3.00	1.50
EECE 309	Communication Theory	3.00	3.00
EECE 310	Communication Laboratory	3.00	1.50
EECE 313	Electrical Measurement, Instrumentation and Sensors	3.00	3.00
EECE 314	Electrical Measurement, Instrumentation and Sensors Lab	3.00	1.50
ME 393	Industrial Management	3.00	3.00
EECE 322	Electrical Service Design Laboratory	3.00	1.50
Total		**27.00**	**21.00**

Level-3, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 305	Power System I	3.00	3.00
EECE 306	Power System I Laboratory	3.00	1.50
EECE 311	Digital signal Processing-I	3.00	3.00
EECE 312	Digital signal Processing-I Lab	3.00	1.50
EECE 307	Microprocessors and Interfacing	3.00	3.00
EECE 308	Microprocessor and Interfacing Laboratory	3.00	1.50
EECE 315	Electrical Properties of Material	3.00	3.00
EECE 317	VLSI I	3.00	3.00
EECE 318	VLSI I Lab	3.00	1.50
Total		**27.00**	**21.00**

EECE 330 (Industrial Training/attachment) will be conducted at any convenient time after the term end exam of term-2 for a duration of 3/4 weeks as applicable or decided by the department.

Level-4, Term-I

Course Number	Course Name	Contact Hour	Credit Hour
EECE 400	Project/ Thesis	6.00	3.00
EECE 401	Control System I	3.00	3.00
EECE 402	Control System I Laboratory	3.00	1.50
EECE 445	Communication Networks	3.00	3.00
EECE 446	Communication Networks Laboratory	3.00	1.50
EECE 4 **	Elective I	3.00	3.00
EECE 4 **	Elective I Laboratory	3.00	1.50
EECE 4 **	Elective II	3.00	3.00
Total		**27.00**	**19.50**

Level-4, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 400	Project/Thesis	6.00	3.00
EECE 4 **	Elective III	3.00	3.00
EECE 4 **	Elective III Laboratory	3.00	1.50
EECE 4 **	Elective IV	3.00	3.00
EECE 4 **	Elective V	3.00	3.00
EECE 4 **	Elective VI	3.00	3.00
EECE 4 **	Elective VII	3.00	3.00
Total:		**24.00**	**19.50**

Note: Students will be assigned one of the three groups viz power, electronics and communications. A student will have to take at least 3 elective theory courses from the the respective group. The remaining (2) elective theory courses may be selected from the respective group or other groups of interdisciplinary group or combination of these groups.

Power

Course Code	Course Name	Credit Hour
EECE 471	Power System II	3.00
EECE 473	Power Electronics	3.00
EECE 474	Power Electronics Laboratory	1.50
EECE 475	Power Plant Engineering	3.00
EECE 477 or EECE 483	Power System Protection OR High Voltage Engineering	3.00
EECE 478 or EECE484	Power System Protection Laboratory OR High Voltage Engineering Laboratory	1.50
EECE 479	Power System Reliability	3.00
EECE 481	Power System Operation and Control	3.00
EECE 485	Electrical Machines III	3.00

Electronics

Course Code	Course Name	Credit Hour
EECE 405	Solid State Devices	3.00
EECE 451	Processing and Fabrication Technology	3.00
EECE 453	Analog Integrated Circuits	3.00
EECE 455	Compound Semiconductor and Hetero-junction Devices	3.00
EECE 457	VLSI II	3.00
EECE 458	VLSI II Laboratory	1.50
EECE 459	Optoelectronics	3.00
EECE 461	Semiconductor Device Theory	3.00

Communication

Course Code	Course Name	Credit Hour
EECE 403	Telecommunication Engineering	3.00
EECE 431	Digital Signal Processing II	3.00
EECE 433	Microwave Engineering	3.00
EECE 434	Microwave Engineering Laboratory	1.50
EECE 435	Optical Fiber Communication	3.00
EECE 437	Digital Communication	3.00
EECE 438	Digital Communication Laboratory	1.50
EECE 439	Mobile Cellular Communication	3.00
EECE 441	Random Signals and Processes	3.00
EECE 443	Satellite Communication	3.00
EECE 444	Satellite Communication Laboratory	1.50

Interdisciplinary

Course Code	Course Name	Credit Hour
EECE 421	Control System II	3.00
EECE 422	Control System II Laboratory	1.50
EECE 423	Numerical Methods	3.00
EECE 424	Numerical Methods Laboratory	1.50
EECE 425	Biomedical Instrumentation	3.00
EECE 426	Biomedical Instrumentation Laboratory	1.50
EECE 429	Radar Engineering	3.00
EECE 430	Radar Engineering Laboratory	1.50
EECE 491	Sonar and Underwater Engineering	3.00
EECE 492	Sonar and Underwater Engineering Laboratory	1.50
EECE 493	Electronics Warfare	3.00
EECE 494	Electronics Warfare Laboratory	1.50
EECE 495	Avionics Engineering	3.00
EECE 496	Avionics Engineering Laboratory	1.50
EECE 497	Biomedical Signal Processing	3.00
EECE 498	Biomedical Signal Processing Laboratory	1.50
CSE 491	Microprocessor System Design	3.00
CSE 492	Microprocessor System Design Laboratory	1.50

MECHANICAL ENGINEERING

Total Credit Hours: 162

LEVEL-1, TERM-I

Course Code	Course Name	Contact Hour	Credit Hour
Phy 105	Structure of Matter, Electricity and Magnetism and Modem Physics	3	3
Chem 101	Chemistry-1	3	3
Math 159	Differential and Integral Calculus	3	3
ME161	Introduction to Mechanical Engineering	3	3
EECE159	Fundamentals of Electrical Engineering	3	3
		15	**15.00**
Chem 114	Inorganic Quantitative Analysis Sessional	3	1.50
EECE160	Fundamental of Electrical Engineering Sessional	3/2	0.75
Shop 162	Foundry, Welding Shop and Machine Shop Sessional	3	1.50
		7.5	3.75
Total:		**22.5**	**18.75**

LEVEL-1, TERM-II

Course Code	Course Name	Contact Hour	Credit Hour
Phy 107	Waves and Oscillation, Geometrical Optics and Wave Mechanics	3	3
Chem 141	Chemistry of Engineering Materials	3	3
Math 163	Vector analysis, Matrices and Coordinate Geometry	4	4
ME 171	Computer Programming Language	3	3
Hum 101	English	2	2
		15	**15.00**
Hum 102	Technical Report Writing and Presentation	3	1.50
Phy 102	Physics Sessional	3	1.50
ME 172	Computer Programming Language Sessional	3/2	0.75
ME 160	Mechanical Engineering Drawing-I	3	1.50
		10.5	**5.25**
Total:		**25.5**	**20.5**

LEVEL –2, TERM – I

Course Code	Course Name	Contact Hour	Credit Hour
ME 241	Engineering Mechanics	3	3
EECE 259	Electrical and Electronics Technology	4	4
Math 261	Ordinary and partial Differential Equation	4	4
ME 201	Basic Thermodynamics	4	4
Hum[1]	Select from the prescribed courses	2	2
		17	17.00
EECE 260	Electrical and Electronics Technology Sessional	3	1.5
ME 202	Basic Thermodynamics Sessional	1.5	0.75
ME 242	Engineering Mechanics Sessional	1.5	0.75
		6	3.00
Total:		**23.00**	**20.00**

LEVEL-2, TERM-II

Course Code	Course Name	Contact Hour	Credit Hour
ME 291	Metallic Materials	3	3.00
ME 261	Numerical Analysis	3	3.00
ME 243	Mechanics of Solids	3	3.00
Math 263	Fourier Analysis, Harmonic functions, Laplace Transform and Complex variable	4	4.00
Hum 231	Engineering Economics	2	2.00
Hum 233	Principal of Accounting	2	2.00
		17	17.00
ME 292	Metallic Materials Sessional	3/2	0.75
ME 262	Numerical Analysis Sessional	3/2	0.75
ME 244	Mechanics of solids Sessional	3/2	0.75
ME 260	Mechanical Engineering Drawing – II	3	1.5
		7.50	3.75
Total:		**24.5**	**20.75**

LEVEL-3, TERM-I

Course Code	Course Name	Contact Hour	Credit Hour
ME 341	Machine Design –1	3	3
ME 321	Fluid Mechanics – 1	3	3
ME 345	Mechanics of Machinery	4	4
ME 301	Conduction and Radiation Heat Transfer	3	3
ME 361	Instrumentation and Measurement	3	3
		16	**16.00**
ME 342	Machine Design Sessional-1	3/2	0.75
ME 322	Fluid Mechanics Sessional-1	3/2	0.75
ME 346	Mechanics of Machinery Sessional	3	1.5
ME 302	Heat Transfer Sessional	3/2	0.75
ME 362	Instrumentation and Measurement Sessional	3/2	0.75
		9	**4.5**
Total:		**25.50**	**20.50**

LEVEL –3, TERM – II

Course Code	Course Name	Contact Hour	Credit Hour
ME 331	Production Processes	4	4
ME 323	Fluid Mechanics – II	3	3
ME 343	Machine Design – II	3	3
ME 381	Measurement and Quality Control	3	3
ME 303	Convection, Boiling, Condensation and Mass Transfer	3	3
		16	16
ME 332	Production Process Sessional	3/2	0.75
ME 324	Fluid Mechanics Sessional-II	3/2	0.75
ME 344	Machine Design Sessional-II	3/2	0.75
ME 382	Measurement and Quality Control Sessional	3/2	0.75
ME 304	Heat and Mass Transfer Sessional	3/2	0.75
ME 372 *	Industrial Training	4 weeks	1.00
Total:		**23.5 + 04 Weeks**	20.75

*It 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	Contact Hour	Credit Hour
ME 421	Fluid Machinery	3	3
ME 431	Machine Tools	3	3
ME 401	Internal Combustion Engines	3	3
Optional I^2	Selected from prescribed optional subjects	3	3
Optional II^2	Selected from prescribed optional subjects	3	3
ME 422	Fluid Machinery Sessional	3/2	0.75
ME 432	Machine Tools Sessional	3/2	0.75
ME 402	Heat Engines Sessional	3/2	0.75
ME 400	Project and Thesis – 1	6	3
Total:		**25.5**	**20.25**

LEVEL- 4, TERM – II

Course Code	Course Name	Contact Hour	Credit Hour
ME 403	Power Plant Engineering	3	3
Optional III^2	Selected from prescribed optional subjects	3	3
Optional IV^2	Selected from prescribed optional subjects	3	3
Optional V^2	Selected from prescribed optional subjects	3	3
ME 481	Industrial Management	4	4
ME 404	Steam Laboratories Sessional	3/2	0.75
ME 400	Project and thesis – II	6	3
Total:		**23.5**	**19.75**

Notes:

1. Students can choose from a number of humanities courses as follows, offered by Humanities Department:
   - Hum 201: Sociology
   - Hum 203: Government
   - Hum 213: Principles of Accounting.
   - Hum 223: Economics
   - Hum 227: Industrial Sociology
2. Students can choose from optional courses offered by the Department of Mechanical Engineering.

AERONAUTICAL ENGINEERING

Total Credit Hours: Aerospace 162.00 & Avionics 161.50

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

Course Code	Course Name	Contact Hour	Credit Hour
Phy 115	Physics I (Waves and Oscillation, Optics and Thermal Physics)	3	3
AEAV 101	Electrical Circuit Analysis-I	3	3
Math 121	Math I (Differential and Integral Calculus)	3	3
Math 123	Math II (Complex Variables and Vector Analysis)	3	3
AEAS 101	Introduction to Aeronautical Engineering	3	3
Phy 116	Physics Sessional	3	1.5
AEAV 102	Electrical Circuit Analysis-I Sessional	3	1.5
AEAS 110	Aeronautical Engineering Drawing-1	3	1.5
SHOP 108	Workshop Technology Sessional - I	1.5	0.75
	Total:	**25.5**	**20.25**

LEVEL-2, TERM-I (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV 201	Electrical Circuit Analysis-II	3	3
AEAS 201	Engineering Mechanics (Statics and Dynamics)	4	4
AEAV 203	Electronics – I	3	3
AEAV 205	Numerical Analysis and Applications	3	3
Math 221	Math IV (Matrices, Coordinate Geometry and Harmonic Functions)	3	3
HumXXX	Select form the prescribed courses (XXX)	3	3
AEAV 202	Electrical Circuit Analysis-II Sessional	1.5	0.75
AEAV 206	Numerical Analysis and Applications Sessional	3.0	1.5
	Total:	**23.5**	**21.25**

LEVEL 1, TERM-II (Aerospace and Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
Phy 117	Phy II (Electricity and Magnetism, Modern Physics and Mechanics)	3	3
Chem 105	Chemistry (Atomic Structure, Thermo-chemistry and Chemistry of Engineering Materials)	4	4
Math 125	Math III (Ordinary and Partial Differential Equations and Laplace Transforms)	3	3
AEAV 103	Computer Programming and Applications	3	3
Hum 111	English	3	3
Hum 112	Technical Report Writing and Presentation	3	1.5
Chem 106	Chemistry Sessional	3	1.5
AEAV 104	Computer Programming and Applications Sessional	3	1.5
SHOP 112	Workshop Technology Sessional - II	1.5	0.75
	Total:	**26.5**	**21.25**

LEVEL-2, TERM-II (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-203	Fundamentals of Fluid Mechanics	3	3
AEAS-205	Mechanics of Solids	3	3
AEAS-207	Thermodynamics	3	3
Math-225	Math V (Fourier Analysis and Statistics)	3	3
AEAS 215	Aircraft Systems	3	3
HUM YYY	Select from prescribed courses	3	3
AEAS-206	Mechanics of Solids Sessional	3	1.5
AEAS-208	Thermodynamics Sessional	1.5	0.75
AEAS-210	Aeronautical Engineering Drawing-II	3	1.5
	Total:	**25.5**	**21.75**

LEVEL-2, TERM-I (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-201	Engineering Mechanics (Statics and Dynamics)	4	4
AEAV-205	Numerical Analysis and Application	3	3
AEAV 203	Electronics-I	3	3
Math-221	Math IV (Matrices, Coordinate Geometry and Harmonic Analysis)	3	3
HUM XXX	Select from prescribed courses	3	3
AEAV-206	Numerical Analysis and Application Sessional	3	1.5
AEAV-204	Electronics-I Sessional	1.50	0.75
	Total:	**20.5**	**18.25**

LEVEL-2, TERM-II (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS 203	Fundamentals of Fluid Mechanics	3	3
AEAV 215	Electronics-II	3	3
AEAV 217	Aircraft Electrical Systems	3	3
AEAS 207	Thermodynamics	3	3
Math 225	Math V (Fourier Analysis and Statistics)	3	3
AEAV 216	Electronics-II Sessional	3	1.5
AEAS 208	Thermodynamics Sessional	1.5	0.75
AEAV 218	Aircraft Electrical Systems Sessionals	1.5	0.75
AEAS 210	Aeronautical Engineering Drawing-II	3	1.5
	Total:	**24**	**19.5**

LEVEL-3, TERM-I (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-301	Heat Transfer	3	3
AEAS-303	Applied Aerodynamics and Computational Fluid Dynamics (CFD)	4	4
AEAS-305	Aerospace Propulsion	4	4
AEAS-307	Aircraft Loading & Structure Analysis	3	3
AEAS 331	Material Science and Aerospace Materials	3	3
AEAS-322	Heat Transfer Sessional	3	1.5
AEAS-324	Applied Aerodynamics and CFD Sessional	3	1.5
AEAS-306	Aerospace Propulsion Sessional	1.5	0.75
AEAS 332	Material Science and Aerospace Materials Sessionlas	1.5	0.75
	Total:	**26**	**21.50**

LEVEL-3, TERM – II (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV-307	Electro-Magnetic Field Theory	3	3
AEAV 327	Aircraft Navigation System-I	3	3
AEAV 329	Measurement and Aircraft Instruments	3	3
AEAV-313	Digital Signal Processing	3	3
AEAV 305	Communication Engineering	3	3
AE-300	Industrial Training	4 weeks	1
AEAV 306	Communication Engineering Sessional	1.5	0.75
AEAV 330	Measurement and Aircraft Instruments Sessional	3	1.5
AEAV-324	Digital Signal Processing Sessional	1.5	0.75
	Total:	**21.0**	**19.00**

LEVEL- 3, TERM – I (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV 301	Digital Systems	3	3
AEAV 303	Signals and Systems	3	3
AEAV 317	Aircraft Electronics Systems	3	3
AEAS 303	Applied Aerodynamics and Computational Fluid Dynamics (CFD)	4	4
HumYYY	Select from the prescribed courses (YYY)	3	3
AEAV 302	Digital Systems Sessional	3	1.5
AEAS 324	Applied Aerodynamics and CFD Sessional	3	1.5
AEAV 318	Aircraft Electronics Systems Sessionals	1.5	0.75
	Total:	**25.0**	**20.5**

LEVEL-4, TERM-I (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS 437	Aerospace Vehicle Design	3	3
AEAS 439	Rotor Dynamics and Aircraft Performance	3	3
AEAS 447	Space Engineering	3	3
AEAV 461	Control Engineering	3	3
AEAS-XXX	Select from prescribed optional courses	3	3
AEAS-400	Project and Thesis	6	3
AEAS 438	Aerospace Vehicle Design Sessional	3	1.5
AEAS-416	Wind Tunnel Testing Sessional	1.5	0.75
	Total:	**25.5**	**20.25**

LEVEL-3, TERM-II (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV 329	Measurement and Aircraft Instruments	3	3
AEAS-313	High Speed Aerodynamics	3	3
AEAS-315	Aerospace Vehicle Stability and Control	3	3
AEAS-317	Mechanics of Structures, Structural Vibration and Aero Elasticity	4	4
AEAS-319	Machine Design	3	3
AE-300	Industrial Training	4 Weeks	1
AEAV 330	Measurement and Aircraft Instruments vSessional	3	1.5
AEAS-320	Machine Design Sessional	3	1.5
	Total:	**22.0**	**20.0**

LEVEL-4, TERM – I (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV-401	Microwave Engineering	3	3
AEAV 411	Control Systems Engineering	3	3
AEAS 447	Space Engineering	3	3
AEAS-433	Aerospace Technology	3	3
AEAV-XXX	Selected from prescribed optional courses	3	3
AEAV-400	Project and Thesis	6	3
AEAV 412	Control Systems Engineering Sessional	1.5	0.75
AEAS 434	Aerospace Technology Sessional	1.5	0.75
AEAV 442	Microwave Engineering Sessional	1.5	0.75
	Total:	**25.50**	**20.25**

LEVEL-4, TERM-II (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-407	Turbo Machinery	3	3
AEAS 401	Computational Structural Analysis	3	3
AEAS 445	Industrial and Business Management	3	3
AEAV 451	Avionics Technology	3	3
AEAS-YYY	Select from prescribed optional courses	3	3
AEAS-400	Project and Thesis	6	3
AEAV 452	Avionics Technology Sessional	1.5	0.75
	Total:	**22.50**	**18.75**

LEVEL- 4, TERM – II (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV 447	Aircraft Navigation System-II	3	3
AEAV-407	Radar Engineering	3	3
AEAV 453	Aircraft Stability Control and Missile Guidance	3	3
AEAS 445	Industrial and Business Management	3	3
AEAV- YYY	Select from prescribed optional courses	3	3
AEAV -400	Project and Thesis	6	3
AEAV-408	Radar Engineering Sessional	1.5	0.75
AEAV 448	Aircraft Navigation System-II Sessional	3	1.5
	Total:	**25.5**	**20.25**

List of Elective Courses to Aerospace Discipline (AEAS/AEAV YYY)

Any two courses (6 Credits) have to be taken from the following courses.

Course Code	Course Name	Level-Term	Contact Hour	Credit Hour
AEAS 455	Human Performance and Limitations	4-I/4-II	3.0	3.00
AEAS-419	Maintenance Management and Repair of Aircraft	4-I/4-II	3.0	3.00
AEAS-421	Aviation Safety	4-I/4-II	3.0	3.00
AEAS-423	Aerospace Management	4-I/4-II	3.0	3.00
AEAS-425	Pressurization and Air Conditioning systems	4-I/4-II	3.0	3.00
AEAS-427	Noise Control and Vibration	4-I/4-II	3.0	3.00
AEAS-429	Rotorcraft Performance	4-I/4-II	3.0	3.00
AEAS-431	Weapons Engineering	4-I/4-II	3.0	3.00
AEAS 435	Aircraft Structural Design	4-I/4-II	3.0	3.00
AEAS 457	Airworthiness and Legislations	4-I/4-II	3.0	3.00
AEAS 459	Entrepreneurship Development	4-I/4-II	3.0	3.00
AEAS 461	Advance Materials Processing Technologies	4-I/4-II	3.0	3.00
AEAS 463	Fluid Power and Control	4-I/4-II	3.0	3.00

List of Elective Courses to Avionics Discipline (AEAS/AEAV XXX)

Any two courses (6.75 Credits) have to be taken by each student from the following list of courses:

Course Code	Course Name	Level-Term	Contact Hour	Credit Hour
AEAS 431	Weapons Engineering	4-I/4-II	3.0	3.00
AEAS-419	Maintenance Management and Repair of Aircraft	4-I/4-II	3.0	3.00
AEAS-421	Aviation Safety	4-I/4-II	3.0	3.00
AEAS-423	Aerospace Management	4-I/4-II	3.0	3.00
AEAV-413	Mobile Cellular Communication	4-I/4-II	3.0	3.00
AEAV-415	Satellite Communication	4-I/4-II	3.0	3.00
AEAV-417	Optoelectronics	4-I/4-II	3.0	3.00
AEAV-419	Electronics Warfare	4-I/4-II	3.0	3.00
AEAV-421	Optical Fiber Communication	4-I/4-II	3.0	3.00
AEAS 455	Human Performance and Limitations	4-I/4-II	3.0	3.00
AEAV-435	Computer Networks	4-I/4-II	3.0	3.00
AEAS 457	Airworthiness and Legislations	4-I/4-II	3.0	3.00
AEAS 459	Entrepreneurship Development	4-I/4-II	3.0	3.00
AEAV 409	Microprocessor and Interfacing	4-I/4-II	3.0	3.00

NAVAL ARCHITECTURE AND MARINE ENGINEERING

Total Credit Hours: 161.25

Level–1, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
Theoretical Courses			
Chem 121	Chemistry-1	3	3
Hum 131	English	2	2
Math 151	Differential Calculus and Integral Calculus	3	3
NAME 107	Basic Naval Architecture	2	2
NAME 109	Basic Marine Engineering	2	2
Phy 121	Structure of Matter, Electricity, Magnetism and Modern Physics	3	3
Sessional Courses			
ME 150/ NAME 150	Mechanical Engineering Drawing-1	3	1.5
Chem 122	Chemistry Sessional-1	3	1.5
Shop 180	Foundry and Welding Shop Sessional	1.5	0.75
Shop 190	Machine Shop Sessional	1.5	0.75
	Total (6T+4S)	**24.0**	**19.50**

LEVEL-2, TERM-I

Course Code	Course Name	Contact Hour	Credit Hour
Theoretical Courses			
Math 251	Vector Analysis and Coordinate Geometry	3	3
NAME 205	Shipbuilding Materials	3	3
NAME 229	Marine Engines and Fuels	3	3
NAME 213	Fluid Mechanics	3	3
NAME 219	Engineering Mechanics	3	3
Sessional Courses			
NAME 214	Fluid Mechanics Sessional	3	1.5
NAME 226	Computer Aided Design (CAD)-1	3	1.5
NAME 208	Ship Design Studio - II	3	1.5
NAME 206	Shipbuilding Materials Sessional	1.5	0.75
	Total (5T+4S)	**25.5**	**20.25**

LEVEL-1, TERM-II

Course Code	Course Name	Contact Hour	Credit Hour
Theoretical Courses			
EECE 181/ NAME 181	Electrical Engineering Principles	3	3
Phy 123	Waves and Oscillations, Geometrical Optics and Wave Mechanics	3	3
Math 153	Ordinary Differential Equation and Partial Differential Equation	3	3
ME 177/ NAME 177	Basic Thermal Engineering	3	3
NAME 157	Hydrostatics and Stability	3	3
Sessional Courses			
NAME 158	Ship Design Studio 1	3	1.5
ME 178/ NAME 178	Basic Thermal Engineering Sessional	3	1.5
Phy 124	Physics Sessional	3	1.5
Hum 132	English Sessional	1.5	0.75
	Total (5T+4S)	**25.5**	**20.25**

LEVEL- 2, TERM- II

Course Code	Course Name	Contact Hour	Credit Hour
Theoretical Courses			
Hum 223	Economics	3	3
EECE 281/ NAME 281	Electrical and Electronic Technology for Marine Application	3	3
Math 253	Statistics,Laplace Transform and Matrices	3	3
NAME 253	Marine Hydrodynamics	3	3
NAME 227	Mechanics of Structure	3	3
Sessional Courses			
EECE 282/ NAME 282	Electrical and Electronic Technology for Marine Engineering Sessional	3	1.5
NAME 254	Marine Hydrodynamics Sessional	3	1.5
NAME 258	Ship Design Laboratory-III	3	1.5
NAME 228	Mechanics of Structure Sessional	1.5	0.75
	Total (5T+4S)	**25.5**	**20.25**

LEVEL- 3, TERM- I

Course Code	Course Name	Contact hours	Credit hours
Theoretical Courses			
Hum 313	Principles of Accounting	3	3
NAME 353	Resistance and Propulsion of Ships	3	3
NAME 307	Design of Marine Vehicles	3	3
NAME 301	ShipStructure	3	3
Optional Courses (any one **)			
NAME 315	Port and Harbor Engineering	3	3
NAME 389	Marine Production and Planning	3	3
NAME 321	Finite Element Method for Ship Structure	3	3
Sessional Courses			
NAME 308	Ship Design Studio IV	3	1.5
NAME 354	Resistance and Propulsion of Ships Sessional	3	1.5
NAME 300	Ship Design Project and Presentation	3	1.5
NAME 302	Ship Structure Sessional	1.5	0.75
	Total (5T+4S)	**25.5**	**20.25**

LEVEL- 4, TERM- I

Course Code	Course Name	Contact hours	Credit hours
Theoretical Courses			
NAME 479	Engineering Management	3	3
NAME 409	Marine Engineering II	3	3
NAME 403	Dynamics of Marine Vehicles	3	3
Optional courses (any two)**			
NAME 431	Ship Hull Vibration	3	3
NAME 435	Computer Aided Ship Production	3	3
NAME 481	Optimization Method in Ship Design	3	3
NAME 445	Dredger and Dredging Technology	3	3
NAME 425	Shipbuilding Practice in Bangladesh	3	3
NAME 437	Inland Water Transportation System	3	3
Sessional Courses			
NAME 400	Project and Thesis	6	3
NAME 426	Computer Aided Design (CAD)-II	3	1.5
NAME 430	Computer Programming in Ship Design	3	1.5
	Total (5T+3S)	**27**	**18 + 3 = 21**

LEVEL- 3, TERM- II

Theoretical Courses			
Course Code	**Course Name**	**Contact hours**	**Credit hours**
Math 351	Fourier Analysis, Harmonic Function and Complex Variable	3	3
NAME 305	Shipbuilding Technology	3	3
NAME 359	Marine Engineering 1	3	3
NAME 369	Heat Transfer	3	3
Optional courses (any one)**			
NAME 367	Economic and Social Aspects of Marine Transportation System	3	3
NAME 357	Design of Special Ships	3	3
NAME 373	Computational Fluid Dynamics (CFD)	3	3
Sessional Courses			
NAME 374	Numerical Analysis Sessional	1.5	0.75
NAME 360	Marine Engineering Sessional-1	3	1.5
NAME 300	Ship Design Project and Presentation	3	1.5
	Total (5T+3S)	**22.5**	**18.75**
Training course during vacation			
NAME 350	Shipyard Practice (4 Weeks consolidated)	4 weeks	1.5

*** Shipyard Training course**

LEVEL- 4, TERM- II

Course Code	Course Name	Contact hours	Credit hours
Theoretical Courses			
NAME 465	Navigation and Maritime Regulations	3	3
NAME 457	Ship Economics and Management	3	3
NAME 459	Ship Hull Maintenance and Repair	3	3
Optional courses (any two)**			
NAME 453	Power and Propulsion System	3	3
NAME 499	Shipyard Management	3	3
NAME 489	Introduction to Offshore Structure	3	3
NAME 447	Marine Pollution and Prevention	3	3
NAME 477	Control Engineering	3	3
NAME 463	Ship Performance		
Sessional Courses			
NAME 400	Project and Thesis	6	3
NAME 460	Marine Engineering Sessional	3	1.5
	Total (5T+2S)	**24.0**	**19.5**

BIOMEDICAL ENGINEERING

Total Credit Hours: 165

Level-1 Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 101	Electrical Circuits I	3.0	3.0
Phy 111	Physics I (Waves and Oscillation, Optics and Thermal Physics)	2.0	2.0
Phy 112	Physics I Laboratory	3.0	1.5
Math 111	Differential and Integral Calculus	2.0	2.0
CE 152	Engineering Drawing	3.0	1.5
Chem101	Chemistry I	3.0	3.0
Chem 114	Inorganic and Quantitative Analysis Laboratory	3.0	1.5
Hum 127	Sociology	2.0	2.0
Hum 135	English	2.0	2.0
Hum 172	Developing English Skills Lab	2.0	1.5
	Total	25.0	20.0

Level-1 Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 110	Electrical Circuits Simulation Laboratory	3.0	1.5
Phy 113	Phy II (Electricity and Magnetism, Modern Physics and Mechanics)	3.0	3.0
Phy 114	Phy II Laboratory	3.0	1.5
Math 115	Vector analysis, Matrices and Geometry	3.0	2.0
CSE 109	Computer Programming	3.0	3.0
CSE 110	Computer Programming Laboratory	3.0	1.5
ME 163	Fundamentals of Mechanical Engineering	3.0	3.0
ME 164	Fundamentals of Mechanical Engineering Laboratory	3.0	1.5
Hum 177	Fundamentals of Economics	2.0	1.5
	Total	**26.0**	**18.5**

Level-2 Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 201	Electronics I	3.0	3.0
EECE 203	Electrical Machines I	3.0	3.0
EECE 206	Electrical Machines laboratory	3.0	1.5
EECE 207	Electronics II	3.0	3.0
EECE 210	Electronic Circuit Simulation Laboratory	3.0	1.5
Math 211	Math (Ordinary and Practical Differential equation)	3.0	3.0
BME 211	Human Anatomy & Physiology	3.0	3.0
BME 213	Medical Instrumentation	3.0	3.0
BME 214	Medical Instrumentation Lab	3.0	1.5
	Total	**27**	**22.5**

Level-2 Term-II

Course Code	Course Name	Contact Hour	Credit Hour
Math 213	Math (Complex Variable & Statistics) (4)	3.0	2.0
BME 221	Dynamics of Biofluids	3.0	3.0
BME 223	Biomechanics	3.0	3.0
BME 224	Bio-engineering and Computation Lab	3.0	1.5
BME 225	Embedded System in Medicine	3.0	3.0
BME 227	Bioinformatics	3.0	3.0
BME 228	Bioinformatics Lab	3.0	1.5
Hum 279	Financial and Managerial Accounting	2.0	1.5
	Total	**23.0**	**18.5**

Level-3 Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 305	Power System I	3.0	3.0
EECE 306	Power System I Lab	3.0	1.5
BME 301	Continuous Signals and Linear Systems	3.0	3.0
BME 303	Digital Electronics	3.0	3.0
BME 304	Digital Electronics Laboratory	3.0	1.5
BME 311	Biomedical Signal Processing	3.0	3.0
BME 312	Biomedical Signal Processing Lab	3.0	1.5
BME 313	Biomedical Instrumentation Measurement	3.0	3.0
	Total	**24.0**	**19.5**

Level-3 Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 309	Communication Theory	3.0	3.0
EECE 310	Communication Laboratory	3.0	1.5
EECE 311	Digital Signal Processing I	3.0	3.0
EECE 312	Digital Signal Processing I Laboratory	3.0	1.5
EECE 315	VLSI-1	3.0	3.0
EECE 316	VLSI-1 Lab	3.0	1.5
BME 321	Hospital Planning and Management	3.0	3.0
BME 323	Principles of Diagnostic and Therapeutic Equip	3.0	3.0
BME 320 **#**	Industrial Training/attachment	¾ weeks	1.5
	Total	**24.0**	**21.0**

BME 320 (Industrial Training/attachment) 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 Hour
BME 400	Project/ Thesis	6.0	3.0
BME 401	Control System I	3.0	3.0
BME 402	Control System I Laboratory	3.0	1.5
EECE 405	Solid State Devices	3.0	3.0
BME 411	Principles of Imaging and Radiological Equipment	3.0	3.0
BME 412	Biomedical Image Analysis Lab	3.0	1.5
BME 4 **	Elective I	3.0	3.0
BME 4 **	Elective I Lab	3.0	1.5
BME 4 **	Elective II	3.0	3.0
BME 4 **	Elective II Lab	3.0	1.5
	Total	**33**	**24.0**

Level-4 Term-II

Course Code	Course Name	Contact Hour	Credit hour
BME 400	Project/Thesis	6.0	3.0
EECE 407	Microprocessors and Interfacing	3.0	3.0
EECE 408	Microprocessor and Interfacing Lab	3.0	1.5
BME 421	Advanced Biomedical Instrumentation	3.0	3.0
BME 422	Advanced Biomedical Instrumentation Lab	3.0	1.5
BME 4 **	Elective III	3.0	3.0
BME 4 **	Elective III Lab	3.0	1.5
BME 4 **	Elective IV	3.0	3.0
BME 4 **	Elective IV Lab	3.0	1.5
	Total	**30.0**	**21.0**

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NUCLEAR SCIENCE AND ENGINEERING (NSE)

Total Credit Hours: 157.75

Level – 1, Term – I

Course Code	Course Name	Contact Hr	Credit Hr
NSE 101	Introduction to Nuclear Science and Engineering	3	3.0
Phy 151	Structure of Matter, Modern Physics and Wave Mechanics	3	3.0
Math 191	Differential and Integral Calculus	3	3.0
ME 151	Introduction to Thermal Engineering	3	3.0
EECE 119	Fundamental of Electrical Engineering	3	3.0
Phy 152	Physics Sessional	3	1.5
EECE 120	Fundamental of Electrical Engineering Sessional	3/2	0.75
Shop 114	Foundry, Welding and Machine Shop	3	1.5
Total :		22.5	18.75

Level – 1, Term – II

Course Code	Course Name	Contact Hr	Credit Hr
NSE 121	Introduction to Computer Science and Programming	3	3.0
Phy 153	Fundamental of Nuclear Physics	3	3.0
Chem 171	Introduction to Chemistry	3	3.0
Math 193	Differential Equations (ODE &PDE)	3	3.0
Hum 105	English and Communication Skill	3	3.0
NSE 122	Computer Programming Language Sessional	3/2	0.75
ME 180	Basic Engineering Drawing	3	1.5
Chem 172	Inorganic Quantitative Analysis Sessional	3	1.5
Hum 106	English and Communication Skill Sessional	3	1.5
Total:		25.5	20.25

Level – 2, Term – I

Course Code	Course Name	Contact Hr	Credit Hr
NSE 201	Neutron Transport and Reactor Physics	3	3.0
NSE 221	Basic Engineering Thermodynamics	3	3.0
Math 291	Vector Analysis, Matrices and Coordinate Geometry	3	3.0
Chem 273	Introduction to Nuclear and Radio Chemistry	3	3.0
EECE 219	Electronics, Signals and measurement	3	3.0
NSE 222	Basic Engineering Thermodynamics Sessional	3/2	0.75
EECE 220	Electronics, Signals and Measurement Sessional	3	1.5
Chem 274	Nuclear and Radio Chemistry Lab	3/2	0.75
Hum1	Select from the prescribed courses	3/2	0.75
		22.5	18.75

[1] Students can choose from a number of humanities courses as follows, offered by Humanities Dept:

Hum 252 : Introduction to Russian Language-I
Hum 262 : Introduction to German Language-I
Hum 272 : Introduction to Japanese Language-I

Level – 2, Term – II

Course Code	Course Name	Contact Hr	Credit Hr
NSE 261	Numerical Methods in Nuclear Engineering Analysis	3	3.0
NSE 291	Material Science for Nuclear	3	3.0
ME 253	Engineering Mechanics	3	3.0
Math 293	Fourier Analysis, Harmonic functions, Laplace Transform and Complex variable	4	4.0
Hum 207	Principle of Accounting	3	3.0
NSE 262	Modeling and Simulation sessional	3	1.5
NSE 292	Material Science for Nuclear Sessional	3	1.5
ME 254	Engineering Mechanics Sessional	3/2	0.75
Hum2	Select from the prescribed courses	3/2	0.75
		25	20.5

[2] Students can choose from a number of humanities courses as follows, offered by Humanities Dept:

Hum 254 : Introduction to Russian Language-II
Hum 264 : Introduction to German Language-II
Hum 274 : Introduction to Japanese Language-II

Level – 3, Term – I

Course Code	Course Name	Contact Hr	Credit Hr
NSE 305	Nuclear Reactor Thermal Hydraulics	3	3.0
NSE 307	Health Physics	3	3.0
NSE 309	Nuclear Fuel Cycle and Radioactive Waste Management	3	3.0
NSE 311	Nuclear Electronics, Instrumentation and Measurement	3	3.0
ME 353	Mechanics of Solids	3	3.0
Hum 305	Economics for Engineers	2	2.0
NSE 306	Nuclear Reactor Thermal Hydraulics Sessional	3/2	0.75
NSE 308	Health Physics-Sessional	3/2	0.75
ME 354	Mechanics of Solids Sessional	3/2	0.75
NSE 312	Nuclear Electronics, Instrumentation and Measurement-Sessional	3/2	0.75
		23	20

Level – 3, Term – II

Course Code	Course Name	Contact Hr	Credit Hr
NSE 325	Fluid Mechanics and Machinery	3	3.0
NSE 329	Reactor Operation and Safety	3	3.0
NSE 331	Nuclear Chemical Engineering and Corrosion	3	3.0
NSE 357	Nuclear Security and Safeguard Engineering	3	3.0
NSE 373	Measurement and Quality Control	3	3.0
NSE 326	Fluid Mechanics and Machinery Sessional	3/2	0.75
NSE 332	Nuclear Chemical Engineering and Corrosion Sessional	3/2	0.75
NSE 374	Project Design	3	1.5
NSE 310	Nuclear Related Training	4 Weeks	1.0
		21.5+4 Weeks	19

Level – 4, Term – I

Course Code	Course Name	Contact Hr	Credit Hr
NSE 411	Nuclear Power Plant Engineering	3	3.0
NSE 415	Environmental Monitoring of NPPs	3	3.0
NSE 425	Non Destructive Testing and Machine Condition Monitoring	3	3.0
NSE 469	OPC-1	3	3.0
ME 497	Industrial Management	3	3.0
NSE 412	Nuclear Power Plant Simulators-Sessional	3	1.5
NSE 426	Non Destructive Testing and Machine Condition Monitoring Sessional	3	1.5
NSE400	Project and Thesis-I	6	3.0
		27	21

Level – 4, Term – II

Course Code	Course Name	Contact Hr	Credit Hr
NSE415	Biomedical Radiation Physics	3	3.0
NSE 413	Nuclear Reactors Design and Features	3	3.0
NSE 415	Nuclear Accidents Analysis and Disaster Management	3	3.0
NSE 419	OPC-2	3	3.0
NSE 412	OPC-3	3	3.0
		15.0	15.0
NSE 416	Biomedical Radiation Physics Sessional	3	1.5
NSE 400	Project and Thesis -II	6	3.0
	Total :	24	19.5

ENVIRONMENTAL, WATER RESOURCES AND COASTAL ENGINEERING

Total Credit Hours: 162

Level – 1, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
PHY 101	Physics	3	3
PHY 102	Physics lab.	3	1.5
CHEM 103	Chemistry	3	3
CHEM 104	Chemistry lab	3	1.5
MATH 107	Differential and Integral Calculus, Matrices	3	3
HUM 109	Sociology	2	2
EWC 121	Ecology, Environmental Pollution and Management	3	3
EWC 110	Engineering Drawing	3	1.5
	Total:	23	18.5

Level – 1, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
EWC 105	Environmental Chemistry	3	3
HUM 107	English	2	2
HUM 106	Communicative English	3	1.5
EWC 113	Surveying	4	4
MATH 109	Differential Equations and Statistics	3	3
EWC 112	Computer Aided Drawing	3	1.5
EWC 111	Analytical Mechanics	3	3
EWC 114	Practical Surveying	3 weeks	1.5
EWC 116	Workshop Sessional	3	1.5
	Total:	24	21

Level – 2, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
MATH 201	Laplace Transform, Vector Analysis and Coordinate Geometry	3	3
HUM 205	Economics	2	2
EWC 211	Mechanics of Solids	4	4
EWC 217	Numerical Methods	2	2
EWC 219	Construction Materials	3	3
EWC 215	Geology and Geo-morphology	3	3
EWC 216	Details of Construction and Quantity Survey	3	1.5
EWC 210	GIS and Remote Sensing Sessional	3	1.5
EWC 218	Structural Mechanics and Materials Sessional	3	1.5
	Total:	26	21.5

Level – 2, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
Math 203	Applied Mathematics for Engineers	3	3
Hum 207	Accounting	2	2
EWC 213	Fluid Mechanics	3	3
EWC 212	Fluid Mechanics Sessional	3	1.5
EWC 214	Computer Programming Sessional	5	2.5
EWC 231	Surface and Ground Water Hydrology	3	3
EWC 222	Environmental Engineering Lab	3	1.5
EWC 251	Transportation Engineering	3	3
	Total:	26	19.5

Level – 3, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
EWC 311	Structural Analysis and Design	3	3
EWC 313	Principles of Soil Mechanics	3	3
EWC 314	Geotechnical Engineering Sessional	3	1.5
EWC 321	Water Supply Engineering	3	3
EWC 331	Irrigation and Drainage Engineering	3	3
EWC 332	Irrigation and Flood Control Sessional	3	1.5
EWC 341	Near Shore Hydrodynamics	3	3
EWC 324	Environmental Engineering Design Sessional	3	1.5
	Total:	27	19.5

Level – 3, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
EWC 315	Design of Concrete Structures	3	3
EWC 316	Structural analysis and design Sessional	3	1.5
EWC 317	Geotechnical and Foundation Engineering	3	3
EWC 323	Waste Water Engineering and Sanitation	4	4
EWC 333	Open Channel Hydraulics	3	3
EWC 334	Open Channel Hydraulics Sessional	3	1.5
EWC 343	Theory of Sediment Transport	3	3
EWC 361	Professional Practices and Communication	3	3
EWC 372	Industrial Training		1.0
	Total:	28	23

Level – 4, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
EWC 421	Solid and Hazardous Waste Management	3	3
EWC 431	Design of Hydraulic Structures	3	3
EWC	Optional-1	2	2
EWC 435	River Engineering and Flood Management	3	3
EWC 461	Project Planning and Construction Management	3	3
EWC 442	Coastal Engineering Lab	3	1.5
EWC 432	Design of Hydraulic Structures	3	1.5
EWC 426	Environmental Modeling Sessional	3	1.5
EWC 470	Thesis	3	1.5
	Total:	26	20

Level – 4, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
EWC 423	Environmental Impact Assessment	3	3
EWC	Optional-2	2	2
EWC	Optional-3	2	2
EWC	Optional-4	2	2
EWC	Optional-1	3	1.5
EWC	Optional-2	3	1.5
EWC 441	Port and Harbour Engineering	3	3
EWC 444	Coastal Structure Design Sessional	3	1.5
EWC 470	Thesis	6	3
	Total:	27	19.5

ARCHITECTURE DEPARTMENT

Total Credit: 202

Level – 1, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
Arch 102	Design Studio I	9.0	4.5
Arch 112	Architectural Graphics I	6.0	3.0
Arch 122	Computer Application I	3.0	1.5
Arch 141	Art and Architecture I	2.0	2.0
Arch 151	Design Theory I	2.0	2.0
Arch 145	Architecture of Bengal	2.0	2.0
Hum 111	English	2.0	2.0
Phy 111	Physics for Architects	1.0	1.0
Math 111	Mathematics	1.0	1.0
	Total:	**28**	**19**

Level – 1, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
Arch 104	Design Studio II	9.0	4.5
Arch 114	Architectural Graphics II	6.0	3.0
Arch 124	Computer Application II	3.0	1.5
Arch 143	Art and Architecture II	2.0	2.0
Arch 153	Design Theory II	2.0	2.0
Arch 131	Environmental Design I: Climate and Environment	2.0	2.0
Arch 161	Building & Finish Materials	2.0	2.0
Hum 113	Sociology for Architects	2.0	2.0
	Total:	**28**	**19**

Level – 2, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
Arch 202	Design Studio III	9.0	6.0
Arch 212	Graphic Art & Sculpture	6.0	3.0
Arch 241	Art and Architecture III	2.0	2.0
Hum 211	Logic and Philosophy	2.0	2.0
Arch 231	Environmental Design II: Visual & Sonic Environment	2.0	2.0
Arch 233	Basic Planning	2.0	2.0
CE 211	Structure I: Mechanics	2.0	2.0
	Total:	**25**	**19**

Level – 2, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
Arch 204	Design Studio IV	9.0	6.0
Arch 214	Photography and Film	3.0	1.5
Arch 243	Art and Architecture IV	2.0	2.0
Arch 237	Military, Air and Naval Architecture	2.0	2.0
Elective	Elective Subjects	2.0	2.0
CE 213	Structure II: Basic Mechanics of solid	2.0	2.0
CE 215	Building Services I: Plumbing	2.0	2.0
Hum215	Psychology & Behavior	2.0	2.0
	Total	**24**	**19.5**

Elective Subjects

Course Code	Course Name	Contact Hour	Credit Hour
Arch 235 Eltv-I	Environmental Design III: Design in the Tropics	2.0	2.0
Arch 239 Eltv-II	Green & Sustainable architecture	2.0	2.0

Level – 3, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
Arch 302	Design Studio V	12.0	8.0
Arch 312	Working Drawing I: Construction Drawing	3.0	1.5
Arch 341	Art and Architecture V	2.0	2.0
Arch 331	Advanced Construction & Building Technology	2.0	2.0
Arch 351	Construction Method & Details	4.0	2.0
CE 311	Structure III: Mechanics of Solid	2.0	2.0
ME 311	Building Services II: Mechanical Equipment	2.0	2.0
	Total:	**27**	**19.5**

Level – 3, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
Arch 304	Design Studio VI	12.0	8.0
Arch 314	Working Drawing II: Production Drawing	3.0	1.5
Arch 343	Art and Architecture VI	2.0	2.0
Arch 333	Urban Design	2.0	2.0
Arch 353	Interior Design	2.0	2.0
Elective	Elective Subjects	2.0	2.0
CE 313	Structure IV: Steel & Timber structure	2.0	2.0
EE 311	Building Services II: Electrical Equipment	2.0	2.0
		27	**21.5**

Elective Subjects

Course Code	Course Name	Contact Hour	Credit Hour
Arch 353 Eltv-I	Cost Estimation & Specification	2.0	2.0
Hum 313 Eltv-I	Economics for Architects	2.0	2.0

Level – 4, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
Arch 402	Design Studio VII	15.0	10.0
Arch 412	Interior Design Studio	3.0	1.5
Arch 451	Advanced Planning	2.0	2.0
Arch 431	Environmental Design IV: Landscape Design	2.0	2.0
Elective		2.0	2.0
Arch 461	Housing	2.0	2.0
CE 411	Structure V: Reinforced Concrete Design	2.0	2.0
		28	21.5

Elective Subjects

Course Code	Course Name	Contact Hour	Credit Hour
Arch 435 Eltv-I	Urban Anthropology	2.0	2.0
Arch 437 Eltv-II	Rural Planning	2.0	2.0

Level – 4, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
Arch 404	Design Studio VIII	15.0	10.0
Arch 414	Landscape Design Studio	3.0	1.5
Elective		2.0	2.0
Hum 413	Project Management for Architects	2.0	2.0
Arch 453	Spaces & Forms in architecture	2.0	2.0
Arch 463	Architecture in Extreme Environments	2.0	2.0
CE 413	Structure VI: Elements of Building Structure	2.0	2.0
	Total:	28	21.5

Elective Subjects

Course Code	Course Name	Contact Hour	Credit Hour
Arch 443 Eltv-I	Architectural Conservation	2.0	2.0
Arch 433 Eltv-II	Contemporary Architectural Theories	2.0	2.0

Level – 5, Term – I

Course Code	Course Name	Contact Hour	Credit Hour
Arch 502	Design Studio IX	15.0	10.0
Arch 541	Architecture and Society	2.0	2.0
Elective		2.0	2.0
Arch 600	Professional Training	-	-
Arch 512	Survey Technique & Analytical Method	2.0	2.0
Arch 522	Seminar	3.0	2.0
Arch 571	Art and Music appreciation	2.0	2.0
	Total:	26.0	21.5

Elective Subjects

Course Code	Course Name	Contact Hour	Credit Hour
Arch 551	Industrial & Commercial Building Design & Planning	2.0	2.0
Arch 553	Health Facilities Planning & Design	2.0	2.0
Arch 553	Educational, Religious & Recreational Facilities Design	2.0	2.0

Level – 5, Term – II

Course Code	Course Name	Contact Hour	Credit Hour
Arch 504	Design Studio X	18.0	12.0
Arch 506	Design Studio X Alternative to Arch 504 Design Studio X (Thesis)	18.0	
Arch 555	Modular Architecture, Production Line & Customization	2.0	2.0
Arch 575	Research Methodology	2.0	2.0
Arch 524	Dissertation	2.0	2.0
Arch 526	Construction Documents Alternative to Arch 524: Dissertation	2.0	
Arch 573	Professional Practice	2.0	2.0
	Total:	**28**	**20**

INDUSTRIAL AND PRODUCTION ENGINEERING

Total Credit Hours: 160

Level 1, Term I

Course Code	Course Name	Contact Hours	Credit Hours
Phy 105	Structure of Matter, Electricity, Magnetism and Modern Physics	3	3.00
Chem 101	Chemistry	3	3.00
Math 161	Differential and Integral Calculus	4	3.00
Hum 155	Sociology	2	2.00
IPE 105	Introduction to IPE	3	3.00
	Total Theoretical	**15.00**	**14.00**
ME 160	Mechanical Engineering Drawing	3	1.50
Shop 172	Machine Shop	3/2	1.50
Chem 114	Inorganic Quantitative Analysis Sessional	3	1.50
Hum 186	English Language Practice	3	1.50
	Total Sessional	**10.50**	**6.00**
	Grand Term Total	**25.50**	**20.25**

Level 2, Term I

Course Code	Course Name	Contact Hours	Credit Hours
Math 223	Differential Equation, Vector Calculus and Laplace Transform	3	3.00
EECE 271	Electrical Machines and Electronics	3	3.00
ME 231	Engineering Materials II	2	2.00
CSE 281	Computer Programming Techniques	3	3.00
ME 271	Engineering Mechanics and Theory of Machines	4	4.00
	Total Theoretical	**15.00**	**15.00**
EECE 272	Electrical Machines and Electronics Sessional	3	1.50
ME 232	Engineering Materials Sessional	3	1.50
CSE282	Computer Programming Techniques Sessional	3	1.50
IPE 204	Engineering Graphics and Introduction to CAD Sessional	3	1.50
	Total Sessional	**12.00**	**6.00**
	Grand Term Total	**27.00**	**21.00**

Level 1, Term II

Course Code	Course Name	Contact Hours	Credit Hours
Math 163	Vector, Matrix and Solid Geometry	4	4.00
Phy 107	Waves and Oscillations, Physical Optics and Wave Mechanics	3	3.00
Chem 141	Chemistry of Materials	2	2.00
ME 131	Engineering Materials I	3	3.00
EECE 171	Basic Electrical & Electronic Circuit	4	4.00
	Total Theoretical	**16.00**	**16.00**
IPE 104	Engineering Graphics	3	1.50
Phy 102	Physics Sessional	3	1.50
EECE 172	Basic Electrical & Electronic Circuit Sessional	3	1.50
	Total Sessional	**9.00**	**4.50**
	Grand Term Total	**25.00**	**20.50**

Level 2, Term II

Course Code	Course Name	Contact Hours	Credit Hours
IPE 205	Manufacturing Processes I	3	3.00
IPE 207	Probability and Statistics	4	4.00
IPE 209	Engineering Economy	2	2.00
ME 243	Mechanics of Solids	3	3.00
ME 251	Thermodynamics and Heat Transfer	4	4.00
	Total Theoretical	**16.00**	**16.00**
IPE 206	Manufacturing Processes I Sessional	3/2	0.75
ME 244	Mechanics of Solids Sessional	3/2	0.75
ME 252	Thermodynamics and Heat Transfer Sessional	3	1.50
	Total Sessional	**6.00**	**3.00**
	Grand Term Total	**22.00**	**19.00**

Level 3, Term I

Course Code	Course Name	Contact Hours	Credit Hours
ME 351	Fluid Mechanics & Machinery	3	3.00
IPE 301	Measurement, Instrumentation and Control	3	3.00
Hum 323	Fundamentals of Economics	3	3.00
IPE 305	Manufacturing Process II	3	3.00
IPE 307	Operations Research	4	4.00
	Total Theoretical	**16.00**	**16.00**
ME 352	Fluid Mechanics & Machinery Sessional	3	1.50
IPE 302	Measurement, Instrumentation and Control Sessional	3/2	0.75
IPE 306	Manufacturing Processes II Sessional	3/2	0.75
	Total Sessional	**6.00**	**3.00**
	Grand Term Total	**22.00**	**19.00**

Level 4, Term I

Course Code	Course Name	Contact Hours	Credit Hours
IPE 403	Project and Environmental Management	3	3.00
IPE 407	Ergonomics and Safety Management	3	3.00
IPE 451	Supply Chain Management	3	3.00
IPE 317	Product Design II	3	3.00
IPE ---	Optional-I	3	3.00
	Total Theoretical	**15.00**	**15.00**
IPE 400	Project and Thesis	6	3.00
IPE 408	Ergonomics and Safety Management Sessional	3/2	0.75
IPE 318	Product Design II Sessional	3	1.50
IPE 300	Industrial Practice	4 Weeks	2.00
	Total Sessional	**10.50**	**7.25**
	Grand Term Total	**25.50**	**22.25**

Level 3, Term II

Course Code	Course Name	Contact Hours	Credit Hours
IPE 303	Product Design I	3	3.00
IPE 311	Material Handling and Maintenance Management	3	3.00
IPE 315	Operations Management	3	3.00
IPE 319	Quality Management	3	3.00
IPE 329	Numerical Analysis	3	3.00
	Total Theoretical	**15.00**	**15.00**
IPE 304	Product Design I Sessional	3	1.50
IPE 312	Material Handling and Maintenance Management Sessional	3/2	0.75
IPE 320	Quality Management Sessional	3/2	0.75
IPE 322	Business Communication Seminar-I	2/2	0.5
	Total Sessional	**7.00**	**3.50**
	Grand Term Total	**22.00**	**18.50**

Level 4, Term II

Course Code	Course Name	Contact Hours	Credit Hours
IPE 401	Machine Tools	4	4.00
IPE 409	CAD/CAM	3	3.00
IPE 411	Industrial and Business Management	3	3.00
IPE ---	Optional II	3	3.00
	Total Theoretical	**13.00**	**13.00**
IPE 400	Project and Thesis	6	3.00
IPE 402	Machine Tools Sessional	3	1.50
IPE 410	CAD/CAM Sessional	3/2	0.75
IPE 470	Industrial Simulation Sessional	3/2	0.75
IPE 480	Business Communication Seminar II	2/2	0.50
	Total Sessional	**13.00**	**6.50**
	Grand Term Total	**26.00**	**19.50**

PETROLEUM AND MINING ENGINEERING

Total Credit Hours: 161.75

LEVEL – 1, TERM – I

Sl No	Course Code	Course Name	Contact hour/week	Credits
		THEORY		
1	Chem 171	Basic Chemistry	3	3
2	Hum 171	Fundamental English	2	2
3	Math 171	Differential and Integral Calculus	3	3
4	PME 151	Geology for Mining and Petroleum Engineers	3	3
5	PME 153	Introduction to Petroleum and Mining Engineering	4	4
		SESSIONAL/LABORATORY		
1	ME 178	Engineering Drawing	3	1.5
2	ME 176	Workshop Practice	3	1.5
3	PME 152	Geology Laboratory	1.5	0.75
4	Hum 172	Developing English Language Skills	2	1
			24.5	19.75

Contact Hours: 15 (Theo) + 9.5 (Lab) = 24.5 hours/week
No of Theory Courses = 5
Total Credits = 19.75
No of Laboratory Courses = 4

LEVEL – 2, TERM – I

Sl No	Course Code	Course Name	Contact hour/week	Credits
		THEORY		
1	EEE 271	Fundamentals of Electrical Engineering	3	3
2	Math 271	Operational Calculus and Numerical Analysis	4	4
3	PME 271	Engineering Mechanics	3	3
4	ME 273	Engineering Thermodynamics	3	3
5	PME 261	Rock Mechanics	3	3
		SESSIONAL/LABORATORY		
1	EEE 272	Electrical Engineering Laboratory	3	1.5
2	ME 274	Engineering Thermodynamics Laboratory	1.5	0.75
3	PME 262	Rock Mechanics Laboratory	1.5	0.75
			25	19.0

Contact Hours: 16 (Theo) + 6 (Lab) = 22 hours/week No of
Theory Courses = 5
Total Credits = 19
No of Laboratory Courses = 3

LEVEL – 1, TERM – II

Sl No	Course Code	Course Title	Contact hour/week	Credits
		THEORY		
1	Chem 173	Petroleum Chemistry	3	3
2	Hum 173	Economics	2	2
3	Math 173	Differential Equation and Vector Analysis	4	4
4	Phy 171	Physics	3	3
5	PME 111	Reservoir Rock and Fluid Properties	3	3
		SESSIONAL/LABORATORY		
1	Chem 172	Chemistry Laboratory	3	1.5
2	Phy 172	Physics Laboratory	3	1.5
3	PME 112	Reservoir Rock and Fluid Properties Laboratory	1.5	0.75
			22.5	18.75

Contact Hours: 15 (Theo) + 7.5 (Lab) = 22.5 hours/week
No of Theory Courses = 5
Total Credits = 18.75
No of Laboratory Courses = 3

LEVEL – 2, TERM – II

Sl No	Course Code	Course Title	Contact hour/week	Credits
		THEORY		
1	CSE 271	Introduction to Computer Programming	2	2
2	Math 273	Engineering Statistics	2	2
3	ME 275	Fluid Mechanics	3	3
4	PME 277	Strength of Materials	3	3
5	PME 263	Mine Surveying	3	3
6	Hum 271	Sociology	2	2
		SESSIONAL/LABORATORY		
1	CSE 272	Computer Programming Sessional	3	1.5
2	ME 276	Fluid Mechanics Laboratory	1.5	0.75
3	PME278	Structural Mechanics and Materials Laboratory	3	1.5
4	PME 264	Mine Surveying Laboratory	3	1.5
			27	20.25

Contact Hours: 15 (Theo) + 12 (Lab) = 27 hours/week No of
Theory Courses = 6
Total Credits = 21
No of Laboratory Courses = 4

LEVEL – 3, TERM – I

Sl No	Course Code	Course Title	Contact hour/week	Credits
THEORY				
1	EEE 371	Electrical and Electronic Engineering	3	3
2	PME 311	Reservoir Engineering	3	3
3	PME 313	Well Logging and Formation Evaluation	3	3
4	PME 315	Drilling Engineering	3	3
5	PME 361	Minerals Processing	3	3
SESSIONAL/ LABORATORY				
1	EEE 372	Electrical and Electronic Engineering Laboratory	3	1.5
2	PME 314	Well Logging Laboratory	1.5	0.75
3	PME 334	Drilling Fluids Laboratory	3	1.5
4	PME 362	Minerals Processing Laboratory	3	1.5
			25.5	20.25

Contact Hours: 15 (Theo) + 10.5 (Lab) = 25.5 hours/week
No of Theory Courses = 5
Total Credits = 20.25
No of Laboratory Courses = 4

LEVEL – 4, TERM – I

Sl No	Course Code	Course Title	Contact hour/week	Credits
THEORY				
1	PME 411	Well Test Analysis	3	3
2	PME 413	Reservoir Modeling and Simulation	3	3
3	PME 461	Mine Ventilation and Environmental Engineering	3	3
4	PME 463	Mine Planning and Design	3	3
5	PME 465	Rock Blasting and Explosive Technology	3	3
6	PME 455	Professional Practices and Communication	2	2
SESSIONAL/ LABORATORY				
1	PME 400	Project / Thesis- Part: I	2	1
2	PME 416	Reservoir Modeling and Simulation Sessional	1.5	0.75
3	PME 462	Mine Ventilation and Environmental Engineering Laboratory	3	1.5
4	PME 456	Professional Practices and Communication Sessional	3	1.5
			26.5	21.75

Contact Hours: 17 (Theo) + 9.5 (Lab) = 26.5 hours/week
No of Theory Courses = 6
Total Credits = 22.25
No of Laboratory Courses = 4

LEVEL – 3 (TERM – II)

Sl No	Course Code	Course Title	Contact hour/week	Credits
THEORY				
1	ME 317	Heat and Mass Transfer	3	3
2	PME 321	Petroleum Production Engineering	3	3
3	PME 323	Natural Gas Engineering	3	3
4	PME 325	Petroleum Refining Technology	2	2
5	PME 363	Mining Systems	3	3
6	PME 365	Shaft Sinking and Tunneling	3	3
SESSIONAL/LABORATORY				
1	ME 318	Heat Transfer Laboratory	1.5	0.75
2	PME 324	Natural Gas Engineering Laboratory	3	1.50
3	PME 364	Mining Systems Laboratory	1.5	0.75
4	PME 352	Computational Laboratory	1.5	0.75
5	PME 354	Industrial Training	3 weeks	0.75
			24.5	21.5

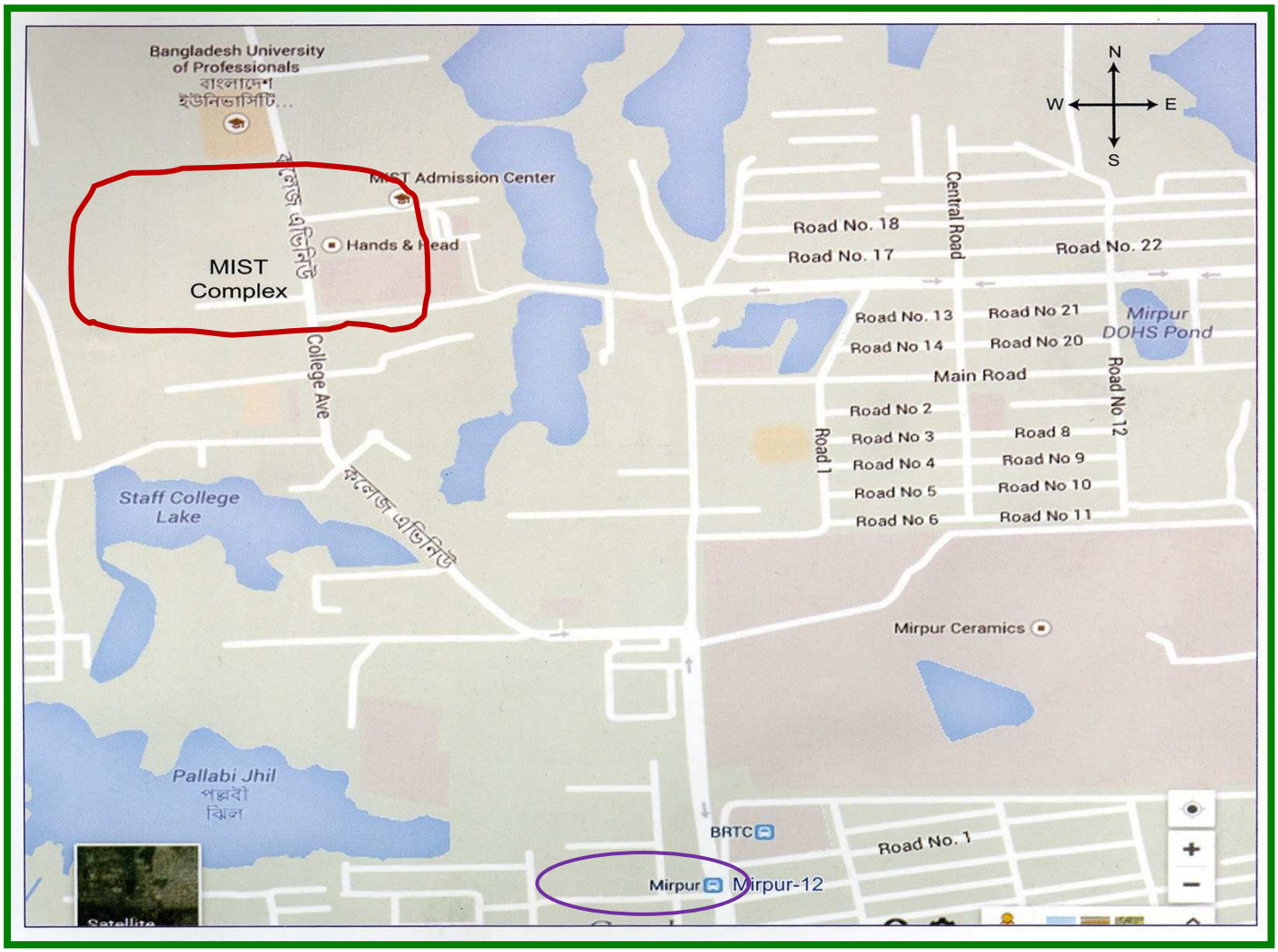
Contact Hours: 17 (Theo) + 7.5 (Lab) = 24.5 hours/week
No of Theory Courses = 6
Total Credits = 21.5 (excluding Industrial Training)
No of Laboratory Courses = 4

LEVEL – 4 (TERM – II)

Sl No	Course Code	Course Title	Contact hour/week	Credits
THEORY				
1	PME 453	Evaluation and Management of Petroleum and Mining Projects	4	4
2	PME 421	Transmission and Distribution of Natural Gas	3	3
3	PME 423	Enhanced Oil Recovery Techniques	2	2
4	PME 467	Ground Water Managements in Mining	2	2
5	PME 469	Mine Haulage and Transportation	3	3
6	PME 451	Health, Safety and Environment in Petroleum and Mining Industries	2	2
SESSIONAL/LABORATORY				
1	PME 400	Project / Thesis- Part: II	6	3
2	PME 422	Transmission and Distribution of Natural Gas Laboratory	1.5	0.75
3	PME 472	Mine Instrumentation and Machineries Laboratory	1.5	0.75
			25	20.5

Contact Hours: 16 (Theo) + 9 (Lab) = 25 hours/week No of Theory Courses = 6
Total Credits = 20.5
No of Laboratory Courses = 3

LOCATION OF MIST



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MIST AT FUTURE

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