



MIST

Military Institute of Science and Technology

PROSPECTUS 2011



Technology for Advancement

MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY



**INAUGURAL CEREMONY OF MIST- 19 APRIL 1998
HONOURABLE PRIME MINISTER OF PEOPLE'S REPUBLIC OF
BANGLADESH SHEIKH HASINA UNVEILLING THE FOUNDATION PLAQUE**

ABOUT MIST

Military Institute of Science and Technology (MIST), the pioneer technical institutes of armed forces, started its journey from 19 April 1998. The honourable Prime Minister, People's Republic of Bangladesh, Sheikh Hasina unveiled the foundation plaque. First academic program was launched on 31 January 1999 with the maiden batch of Civil Engineering (CE). The pioneer batche comprised of only military students. Civil students (both male and female) were admitted to various disciplines in the session 2002-2003. Foreign students were admitted first time in session 2008-2009. 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. As an institution MIST is already on steady stride upholding its motto '**Technology for Advancement**'. The institute remains committed to contribute to the wider spectrum of national educational arena and plays a significant role in the development of human resources.



ATTRIBUTES OF MIST

MIST is an educational entity where there is an opportunity of blending civil and military students with diversified skills, exposure, experience and outlook. Attributes those may be considered as strengths of MIST are:

- ❖ Rigorous admission and selection process for best possible screening.
- ❖ Interactive sessions in the classroom.
- ❖ Regular guest lectures and educational visits.
- ❖ Culture 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 for on job training.
- ❖ Emphasis on code of conduct and dress code.
- ❖ Focus to develop students as a 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 from home and abroad at degree and post graduate levels.
- ♣ To organise courses on military science and technology in various areas of interest.
- ♣ To hold examinations and confer certificates of diplomas/ degrees, other academic distinctions, to and on 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 make provisions for advisory, research and consultation service including supervisions, material testing and to enter into suitable agreement with any persons/organisations for this purpose.
- ♣ To co-operate with Universities / Technical Institutions (both military and civil) including signing of 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) and
 - Aeronautical Engineering (AE)
- To conduct post graduate/ masters program.
- To conduct diploma courses in surveying & mapping.
- To conduct diploma and certificate courses in CSE.
- To conduct professional advanced courses.

AFFILIATION

All academic programs of MIST are affiliated with the 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.

TEACHING DEPARTMENTS

Department of Civil Engineering

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. 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. Various tests regarding material properties, constructional quality control, etc. are carried out in the laboratories.



Department of Computer Science and Engineering

Department of CSE started from the academic session in 2000-2001 as department of CSIT with only military students. Civil students were admitted from the next session. It was renamed as Department of CSE in January 2003. Over the years, this ever-flourishing department has been providing the technical foundation, scholarly guidance and leadership skills that have resulted in a number of highly qualified and skilled computer graduates, proving their potentiality at home and abroad. With educated, sincere and enthusiastic faculty, a continuous enrolment of brilliant students and an amicable teacher-student interaction the department has become a unique one in its field. Major areas of specialities are software and hardware.



Department of Electrical, Electronic and Communication Engineering

EECE Department started its journey in 2003 with 45 students. The main focus of the EECE Department is on three major areas: power, electronics and communication in the undergraduate curricula. The expertise of the faculty members of this department ranges from power systems to VLSI technology. The research areas of teachers and students of this department include power, energy, electrical machines, solid state device, signal processing, image processing, device modelling, power electronics, control engineering, high voltage engineering, etc. The department provides well equipped laboratories with the latest models of PCs and state of the art equipment.

Department of Mechanical Engineering

ME Department commenced undergraduate programs from January 2003 with 45 students. Mechanical engineering is generally understood to emphasise on energy, its transformation, transmission, utilisation, and applied mechanics & design. The ME programmes provide excellent technical background. Throughout the study programmes, considerable emphasis is placed on the development of systematic procedures for analysis and design, and on the responsible use of technology. In addition to lecture and practical sessions in classrooms, the undergraduate programme also includes industrial visits and on-site industrial training. The department is organised into three major divisions: thermal engineering, fluid mechanics and applied mechanics.



Department of Aeronautical Engineering

To fulfil the service requirements and facilitate space based research MIST has started AE programme from Feb 2009 with 65 students. The AE undergraduate programme 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 engineering, advance aerospace technology and other discipline. This department is committed to the study and analysis of fundamental as well as applied problems. The department is organised into two major divisions: aerospace and avionics.



Department of Science and Humanities

As a supporting department it is committed to impart the basic knowledge to the students of various engineering discipline on the non-departmental subjects. This department enriches the human faculty of a student through various pivotal activities in order to make him a complete professional. Perceptive instructors guide the students through auspicious lessons to enhance the knowledge of future potential engineers through immaculate ideas. The major areas of studies are Physics, Mathematics, Chemistry, English, Economics, Sociology, Accounting etc. |



TEACHING STAFFS

A group of qualified instructors, teachers drawn from military as well as from civilian community including from international arena are relentlessly engaged in imparting knowledge to the students. In addition, teachers from Bangladesh University of Engineering Technology (BUET), Dhaka University (DU) etc conduct classes on particular subjects/courses. Guest speakers/teachers from various organisations/institutions/universities are also invited to participate in teaching programs, lecturers, seminars etc.

INTAKES

Intake of students in each of the B.Sc. Engineering Program of CE, CSE, EECE, ME and AE is 65. Both male and female students are eligible for admission in MIST.

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

As recognition of performance and ensure continued studies MIST awards following medals, scholarships and stipends.

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 dept earning a minimum CGPA of 3.8.

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 $3.7 \leq \text{CGPA} < 3.8$ at the end of each academic level for level 1, 2 and 3.
- All graduating students earning $3.7 \leq \text{CGPA} < 3.8$ considering results of entire program (level 1 to 4).

Scholarships and Stipends

- Chancellor's (BUP) Scholarship.
- Vice Chancellor's (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.

FACILITIES AND SERVICES

Accommodation

MIST, in principle is a residential institute. The modern residential hall named 'Osmany Hall' can accommodate 520 students (male 260 and female 260). Each room has internet browsing facilities. There are also two 14 storied teachers' family quarters for permanent teachers.

Library

MIST has a well-arranged library enriched with about 40,000 books and a good number of periodicals, journals and magazines from home and abroad. It also subscribes a number of Bangla and English newspapers and periodicals. In addition to that each dept has its own library enriched with adequate text and reference books. It also subscribes e-journals.

Medical Support

Civil students are provided with medical support by MIST medical centre. As prescribed by the medical officer, MIST Medical centre provides required medicine and other necessary support as per the existing medical policy.

Fitness Centre

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



FITNESS CENTER

Cyber Café

Cyber café provides internet browsing facilities to students and faculties.

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.

Debating Society

MIST Debating Society (MISTDS) arranges debate on regular basis.

Cultural Programmes

To break the monotony of study different cultural programmes are arranged at regular intervals.

Centre for Advisory and Testing Services (CATS)

CATS provide consultancy, advisory and testing services to government and non-government organizations.

Cafeteria

Cafeteria provides an inexpensive meal with different types of cuisine on offer.



CAFETERIA

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)
- Engineer in Chief (E in C), Army Headquarters (AHQ), Bangladesh Army
- Vice Chancellor (VC), BUP
- Commandant, MIST
- Representative of the Ministry of Defense (MOD)
- Representative of the Ministry of Finance
- Representative of the Ministry of Education
- Representative of the Ministry of Science and Information and Communication Technology
- Director Academic (Dean), MIST
- Representative of the VC, DU
- Representative of the VC, BUET

❖ **Secretary:** Colonel Staff, MIST

Governing Body of MIST

❖ **Chairman:** Commandant , MIST

❖ **Vice Chairman:** E in C, Bangladesh Army

❖ **Members:**

- Representative of AFD
- Director Military Training, Bangladesh Army
- Director Naval Training, Bangladesh Navy

- Director Air Training, Bangladesh Air Force
- Dean, MIST
- Director Research & Development (R&D), MIST
- Director Administration, MIST
- Representative of the VC, DU
- Representative of the Faculty of Science, DU
- Representative of the VC, BUET
- Representative of the VC, BUP
- Representative of MOD

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

Academic Council of MIST

❖ **Chairman:** Commandant, MIST

❖ **Members:**

- Representative of Training Directorate, AFD
- Representative of Military Training Directorate, Army Headquarters
- Representative of Naval Training Directorate, Naval Headquarters
- Representative of Air Training Directorate, Air Headquarters
- Dean, MIST
- Director R&D, MIST
- Director Administration, MIST
- Colonel Staff, MIST
- Heads of all Departments, MIST
- All Senior Instructors/ Professors of MIST
- Representative of the VC of DU
- Representative of the VC of BUET
- Representative of the VC of BUP
- Representative of the Academic Council of DU
- Representative of MOD
- Representative of Ministry of Finance
- Representative of Ministry of Education

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

ELIGIBILITY FOR ADMISSION TEST

Bangladeshi Students

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

- Applicants must have passed SSC/Dhakhil/equivalent examination from Board of Intermediate and Secondary Education/ Madrasa Education Board/ Technical Education Board in Science group with minimum GPA 4.00 in a 5-point scale.
- Applicants must have passed HSC/Alim/equivalent examination from Board of Intermediate and Secondary Education/ Madrasa Education Board/ Technical Education Board in Science group with minimum GPA 4.00 in a 5-point scale.
- In HSC/Alim/equivalent examination the applicant must have obtained minimum “A” grade in any two (02) subjects out of four (04) subjects including Mathematics, Physics, Chemistry & English and minimum “A-” (A minus) grade in rest two (02) subjects.
- Applicants with GCE ‘O’ Level/equivalent background must have to qualify in minimum five (05) subjects including Mathematics, Physics, Chemistry and English with minimum “B” grade in average.
- Applicants with GCE ‘A’ Level/equivalent background must have to qualify in minimum three (03) subjects including Mathematics, Physics and Chemistry with minimum “B” grades separately.
- Applicants who have passed HSC or equivalent examination in the current year or one year before the notification for admission can apply.
- Sex: Male and female.

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 Peoples 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

The highest number of seats for 4 years bachelor degree in engineering program is 65 for each department. The total number is 325. 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
- Children of Freedom Fighters
- Tribal Citizen
- Foreign Students

SUBMISSION OF APPLICATION - 2011

Instructions for Submission of e-Application

Application for the Admission Test-2011 in MIST will be accepted only through online system from 02 Oct 11 to 31 Oct 11. No manual application will be accepted. An applicant needs to deposit Tk 600 (six hundred) 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 (mainly by using scanner) a copy of recent passport size coloured photograph (approximately 300X300 pixel and maximum 100 KB size) and signature (approximately 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-2011**” 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-2011:

Step 1: Filing up Online Application Form

Go to MIST website www.mist.ac.bd 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”. Then select and click “**Next**”.

1. **For General Education (HSC/Alim/Equivalent) Examination Applicants.**

a. **Applicant's Academic Information.** In the "Application" box, put your roll 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 Department.** An applicant needs to put priority of choice of five engineering departments. For example, if an applicant wants to choose EECE Department as priority 1, then he/she needs to check the "Radio" button under EECE in the first row. If CSE is the third choice, then the applicant needs to check the "Radio" button under CSE in the third row. Thus all the departments have to be given a choice. Under each department only one "Radio" button can be selected.

(II) **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/her category of candidature.

(III) **Address.** An applicant needs to type his/her address. He/she is to select district and upozilla from the "Pull Down" menu.

(IV) **Contact Mobile Number.** The applicant must give a **contact mobile 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.

c. **Upload Photo & Signature.** An applicant is required to prepare two JPG format files each containing Passport size photo (with approximately 300X300 pixel and maximum 100 KB size) and scan copy of his/her signature (with approximately 300X80 pixel and maximum 60 KB size). He/she is to select "Browse" button and upload the photo and signature from the concerned drive/location.

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 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 Information.** The applicant needs to type his/her name, father's name, mother's name. He/she needs to select date of birth from the "Pull Down" menu. He/she also needs to select the Gender "Radio" button. Then click the "Next" button.
- b. **Choice of Department.** An applicant needs to put priority of choice of five engineering departments. For example, if the applicant wants to choose EECE Department as priority 1, then he/she needs to check the "Radio" button under EECE in the first row. If CSE is the third choice, then the applicant needs to check the "Radio" button under CSE in the third row. Thus all the departments have to be given a choice. Under each department only one "Radio" button can be selected.
- 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/her category of candidature.
- d. **Address.** The applicant needs to type his/her address. He/she is to select district and upozilla from the "Pull Down" menu.
- e. **Contact Mobile Number.** The applicant must give a **contact mobile 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 "Pull 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 pp size photo (with approximately 300X300 pixel and maximum 100 KB size) and scan copy of his/her signature (with approximately 300X80 pixel and maximum 60 KB size). He/she is to select "Browse" button and upload the photo and signature from the concerned drive/location.
- 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 the "Submit" button.

3. Then the applicant will see a preview page with his/her photo and signature along with other information. The applicant will also get an application serial number and invoice number. This invoice number will be required to deposit the application fee. The applicant will get a confirmation message that the applicant could complete step 1 in submitting the application. It is to be noted that the application process will not be completed until the application fee is deposited through SMS from Teletalk prepaid mobile phone.

Step 2: Depositing Application Fee through SMS

4. Each applicants needs to deposit Tk.600 (six hundred) through Teletalk prepaid mobile phone within 24 (Twenty Four) hours after clicking on the “Submit” button but within 01 November 2011. Following steps are to be followed to deposit application fee:
 - a. Go to SMS option in Teletalk prepaid mobile phone. Then type MIST <space> invoice no. Then send to 16222. Example: Type MIST 66666 then send to 16222. The applicant needs to type his/her invoice number in place of 66666.
 - b. If the SMS is sent correctly, the applicant will receive a six digit PIN along with his/her 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/her PIN in place of 777777.
5. The applicant will then receive a confirmation SMS from MIST in his/her given contact mobile number that the application is finally submitted to MIST. He / She will also receive a **User Name** and a **Password**. This will be required for eligible applicants to download **Admit Card** from 18 November 2011 onwards.
6. **Physical Submission of Certificates.** Applicants of the categories of Children of Freedom Fighters (F), Tribal Citizen (T) and Children of Military Personnel (M) must submit required certificate/documents to MIST admission desk physically within 1700 hours of **31 October** 2011. 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 ie Children of Freedom Fighters, Tribal Citizen and Children of Military Personnel will not be completed without submitting the required certificates/documents physically to MIST within 1700 hours of 31 October 2011.
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”. Contact: mistadmission@mist.edu.bd Phone: 01556-565566, 01769-023896, 8000266.

ADMISSION TEST

Selection of Candidates

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 ten candidates for one vacant seat subject to availability of space) candidates will be allowed to take part in the written admission test of three hours. 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 web site of MIST www.mist.ac.bd and will be intimated to individual through SMS to the contact mobile number given by the applicant.

Subjects and Syllabus for Written Admission Test

Ser	Subjects	Syllabus
1.	Mathematics	Syllabi of the current year of HSC Examinations of all Boards of Intermediate and Secondary Education
2.	Physics	
3.	Chemistry	
4.	English	

Distribution of Marks

Ser	Subjects	Marks
1.	Mathematics	80
2.	Physics	60
3.	Chemistry	40
4.	English	20
Total:		200

FINAL SELECTION

Minimum qualifying marks in the written admission test is 40%. But in special circumstances for fulfilment of specified number of seats, President Admission Committee with approval from Commandant. MIST, 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:

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

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 mobile 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.

Following documents are 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 the respective chairman of UP/municipality or appropriate authority of City Corporation.
- 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.

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):

Ser	Category	Amount (Taka)	Remarks
1.	Admission Processing Fee	600	
2.	Admission Fee (Once during admission)	10,000	Non refundable
3.	Readmission Fee	5,000	When applicable
4.	Tuition Fee (Monthly)	300	
5.	Security Money/ Caution Money (Once during admission)	20,000	Refundable after completing the program
6.	Library Fee (Once during admission)	4,000	Non refundable
7.	Registration Fee (One time)	450	As set by BUP
8.	Exam Fee (Term wise)	3,000	As set by BUP
9.	Centre Fee (Term wise)	500	As set by MIST
10.	Grade Sheet Fee (Term wise)	375	As set by BUP
11.	Course Registration Fee (Per credit hour)	100	
12.	Medical Fee (Monthly)	300	
13.	Sports Fee (Monthly)	100	
14.	Students welfare Fee (Monthly)	350	
15.	Lab & Training Equipments Maintenance Fee (Monthly)	200	

Ser	Category	Amount (Taka)	Remarks
16.	Education Development Charge (Yearly) a. Children of Serving & Retired Military and Civil Officials (necessary proof will be required) - OR b. Other Citizen of Bangladesh	12,500 25,000	Non refundable

HALL CHARGES

(For residential civil students)

Ser	Name of Head	Amount (Taka)	Remarks
1.	Security Deposit (One time)	5,000.00	Refundable
2.	Mess Advance (One time)	3,000.00	Refundable
3.	Admission Fee	1,000.00	
4.	Readmission Fee	500.00	As Applicable
5.	Identity Card	100.00	
6.	Establishment Charge	1000.00	Monthly
7.	Seat Rent	300.00	„
8.	Electricity, gas and water bill charge	250.00	„
9.	Maintenance & Cleaning	250.00	„
10.	Common Room Subscription	100.00	„
11.	Contingencies	100.00	„
12.	Messing	As per Mess bill	„

LABORATORY FACILITIES

Each dept is equipped with modern laboratory (lab) facilities. The various laboratories available/planned under each dept are given below:

CE Dept

- Environmental Engineering Laboratory
- Geotechnical Engineering Laboratory
- Structural Mechanics Laboratory
- Concrete Laboratory
- Transportation Engineering Laboratory
- Water Resources Engineering Laboratory
- Survey & Mapping Shop
- Estimating & Drawing Shop

CSE Dept

- Network Laboratory
- Software Engineering Laboratory
- Artificial Intelligence and VLSI Laboratory
- Micro Processor and Micro Controller Laboratory
- Digital Laboratory
- Interfacing Laboratory
- Teachers' PC Laboratory

EECE Dept

- 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

ME Dept

- 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 Lab
- Applied Mechanics Lab
- Fluid Mechanics Lab

AE Dept

- Applied Aerodynamics Laboratory
- Jet Propulsion Laboratory
- Radar Engineering Lab
- Avionics and Ground Electronics Laboratory
- Aero-structure Laboratory
- Measurement and Quality Control Laboratory
- Aero-Composite Material Laboratory
- Aero-weapon System Laboratory
- Airborne Electronics Laboratory
- Aero-Instrumentation Laboratory

Sc & Hum Dept

- Chemistry Laboratory
- Physics Laboratory

COURSE PATTERN 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

The salient features of the course system are as follows:

- 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

Each course is designated by letter code identifying the department offering the course followed by a three-digit number having the following interpretation:

- 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 Dept

CE Dept offers BSc in Civil Engineering degree.

Level	Term	Credit Hour
1	I	18.50
	II	19.50
2	I	19.50
	II	22.50
3	I	22.50
	II	22.00
4	I	20.00
	II	17.50
Total Credit Hours:		162.00

CSE Dept

CSE Dept offers BSc in Computer Science and Engineering degree.

Level	Term	Credit Hour
1	I	20.00
	II	21.50
2	I	20.25
	II	21.00
3	I	19.75
	II	21.00
4	I	18.50
	II	20.00
Total Credit Hours:		162.00

EECE Dept

EECE Dept offers BSc in Electrical, Electronics & Communication Engineering degree.

Level	Term	Credit Hour
1	I	20.50
	II	19.00
2	I	21.00
	II	19.00
3	I	19.50
	II	20.50
4	I	21.00
	II	18.00
Total Credit Hours:		158.50

ME Dept

ME Dept offers BSc in Mechanical Engineering degree.

Level	Term	Credit Hour
1	I	20.50
	II	19.50
2	I	21.25
	II	19.75
3	I	20.50
	II	20.50
4	I	20.25
	II	19.75
Total Credit Hours:		162.00

AE Dept

AE Dept offers BSc in Aeronautical Engineering degree.

Level	Term	Credit Hour	
		Aerospace	Avionics
1	I	20.25	20.25
	II	21.25	21.25
2	I	19.25	21.25
	II	18.75	19.50
3	I	20.75	18.00
	II	19.25	19.75
4	I	20.50	21.00
	II	20.75	20.25
Total Credit Hour:		160.75	161.25

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

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

DISTRIBUTION OF MARKS

Theory Courses

Thirty percent (30%) of marks shall be allotted for continuous assessment ie 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	05%
Class Attendance	05%
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

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

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, \dots, C_n and his grade points in these courses are G_1, G_2, \dots, G_n 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, \dots, TC_n and his GPA in these terms are $GPA_1, GPA_2, \dots, GPA_n$ 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

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.

WITHDRAWAL POLICY

The MIST has been established with an aim of providing quality education in various disciplines of Engineering leading to BSc 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 (BSc) Engineering programs, in the disciplines of CE, EECE, ME, CSE and AE 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 two 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, he/she 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. For a military student, repeating a level will be subject to the approval of the respective Services Headquarters.
- 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 he/she will leave MIST and will be allowed to appear in the next scheduled referred/re-examination of the respective course. In that examination if he/she cannot pass the course/subject, or if he/she 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 he/she applies, may be allowed to withdraw temporarily from the program, subject to the approval of academic council of MIST, but he/she 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.

TEACHER-STUDENT INTERACTIONS

The academic system in MIST encourages students to come in close contact with the teachers. For promotion of high level of teacher – student’s interaction, a course coordinator (CC) is assigned to each course. Students are free to discuss with CC about all academic matters. Students are also encouraged to meet other teachers any time for help and guidance for academic matters. Heads of the departments, Director of Administration, Director of Students’ Welfare (DSW), Dean and Commandant address the students at some intervals. More so, monthly Commandant’s Parade is organised in MIST where all faculty members, staff 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) Black Oxford shoes and Black socks.	Ash coloured three quarter sleeve Kamiz, White coloured Sallowar and Dopatta, Black ladies shoes and socks/ Black sandle shoes.	Ash coloured three quarter sleeve Kamiz, White coloured Sallowar and Dopatta, Navy Blue cardigan (if required), Black ladies shoes and socks/ Black sandle shoes.



ADMISSION TEST



ORIENTATION OF NEW INTAKES



CLASS IN PROGRESS



EXAM IN PROGRESS



GRADUATION CEREMONY



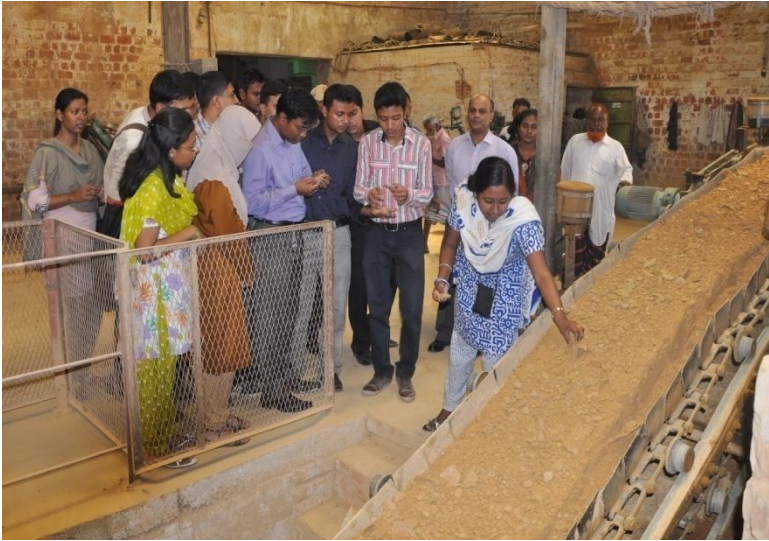
INAUGURATION OF ONLINE ADMISSION SYSTEM



STUDENTS' PROJECT FAIR



REGULATORY BODIES MEETING



TRAINING VISIT



DELEGATION VISIT



SPORTS AND CULTURAL ACTIVITIES



CHEMISTRY LAB



GEO-TECHNICAL ENGINEERING LAB



DIGITAL ELECTRONIC LAB



MACHINE TOOLS LAB



SURVEYING AT MIST



CYBER CAFÉ



CENTRAL LIBRARY



MEDICAL CENTER



TEACHERS' ACCOMODATION



OSMANY HALL



STUDENT OFFRS' MESS

CIVIL ENGINEERING

Total Credit Hours: 162.00

Level-1, Term-I

Course Code	Course Title	Contact Hour	Credit Hour
Phy 105	Structure of Matter, Electricity and Magnetism and Modern Physics.	3	3
Phy 102	Physics Laboratory	3	1.5
Chem 103	Chemistry I/ Chemistry II	3	3
Chem 114	Inorganic Quantitative Analysis (Sessional)	3	1.5
Math 131	Mathematics-I (Differential and Integral Calculus)	3	3
Hum 113	Government	1	1
CE 100	Civil Engineering Drawing I	3	1.5
CE 101	Engineering Mechanics	4	4
Total:		23	18.5

Level-1, Term-II

Course Code	Course Title	Contact Hour	Credit Hour
Phy 101	Physical Optics, Heat waves and Oscillation	3	3
EEE 165	Basic Electrical Technology	3	3
EEE 166	Basic Electrical Technology Laboratory	3	1.5
Hum 123	Economics	2	2
Math 133	Mathematics II (Vector Analysis, Matrices and Geometry)	3	3
CE 102	Civil Engineering Drawing II	3	1.5
CE 103	Surveying	4	4
Shop 132	Workshop	3	1.5
CE 104	Practical Surveying	3 weeks	1.5
Total:		24	21

Level-2, Term-I

Course Code	Course Title	Contact Hour	Credit Hour
Math 231	Differential Equation and Partial Differential equations	3	3
Hum 211	Sociology	2	2
CE 200	Details of Construction	3	1.5
CE 201	Engineering Material	4	4
CE 202	Materials Sessional	3	1.5
CE 203	Engineering Geology & Geomorphology	3	3
CE 211	Mechanics of Solids-I	3	3
CE 212	Structural Mechanics & Materials Sessional	3	1.5
Total:		24	19.5

Level-2, Term-II

Course Code	Course Title	Contact Hour	Credit Hour
Math 235	Fourier Analysis, Harmonic Functions, Laplace Transform, Probability and Statistics	3	3
Hum 221	English	2	2
Hum 222	English Sessional	3	1.5
CE 205	Numerical Methods & Computer Programming	3	3
CE 206	Computer Programming Sessional	3	1.5
CE 208	Quantity Surveying	3	1.5
CE 213	Mechanics of Solids II	3	3
CE 261	Fluid Mechanics	4	4
CE 262	Fluid Mechanics Sessional	3	1.5
Total:		27	21

Level-3, Term-I

Course Code	Course Title	Contact Hour	Credit Hour
CE 311	Structural Analysis & Design-I	3	3
CE 312	Structural Analysis & Design Sessional-I	3	1.5
CE 315	Design of Concrete Structures-I	4	4
CE 331	Environmental Engineering - I	3	3
CE 341	Geotechnical Engineering-I	4	4
CE 342	Geotechnical Engineering Sessional-I	3	1.5
CE 361	Open Channel Flow	4	4
CE 362	Open Channel Flow Sessional	3	1.5
Total:		27	22.5

Level-4, Term-I

Course Code	Course Title	Contact Hour	Credit Hour
CE 333	Environmental Engineering- II	4	4
CE 351	Transportation Engineering-I (Transport & Traffic Design)	3	3
CE 400	Project & Thesis	3	1.5
CE 401	Project Planning & Management	3	3
CE 411	Structural Analysis & Design-III	4	4
CE 461	Irrigation & Flood Control	3	3
CE 462	Irrigation & Flood Control Sessional	3	1.5
Total:		23	20

Level-3, Term-II

Course Code	Course Title	Contact Hour	Credit Hour
CE 313	Structural Analysis & Design-II	3	3
CE 316	Concrete Structures Sessional	3	1.5
CE 317	Design of Concrete Structures-II	3	3
CE 332	Environmental Engineering Sessional- I	3	1.5
CE 343	Geotechnical Engineering-II	3	3
CE 353	Transportation Engineering-II (Highway Design & Railways)	4	4
CE 354	Transportation Engineering Sessional- I	3	1.5
CE 363	Hydrology	3	3
CE 300	Industrial Training	4Weeks	1.5
Total:		25	22

Level-4, Term-II

Ser	Course Code	Course Title	Contact Hour	Credit Hour	Remarks
1.	CE 400	Project and Thesis	6	3	
2.	CE 403/ 405/ 463	Professional Practices & Communication/ Socio-economic Aspects of Development Project/ Integrated Water Resources Planning & Management.	2	2	Any one
3.	CE 412	Structural Analysis & Design Sessional –II	3	1.5	
4.	CE 413	Theory of Elasticity & Elastic Instability of Structures	2	2	2+2+1.5
	CE 415	Pre-stressed Concrete	2	2	
	CE 417	Design of Steel Structures	2	2	
	CE 419	Introduction to Finite Element Method	2	2	
	CE 416	Structural Analysis & Design Sessional III	3	1.5	
			7	5.5	
5.	CE 431	Environmental Engineering III	2	2	2+2+1.5
	CE 433	Environmental Engineering IV	2	2	
	CE 435	Environmental Engineering V	2	2	
	CE 432	Environmental Engineering Sessional II	3	1.5	
			7	5.5	
6.	CE 441	Geotechnical Engineering III	2	2	2+2+1.5
	CE 443	Geotechnical Engineering IV	2	2	
	CE 445	Geotechnical Engineering V		2	

	CE 442	Geotechnical Engineering Sessional II	3	1.5	
			7	5.5	
7.	CE 451	Transportation Engineering III, (Traffic Planning & Management)	2	2	2+2+1.5
	CE 453	Transportation Engineering IV, Highway Drainage & Airports.	2	2	
	CE 455	Transportation Engineering V, Transport Project & Operations	2	2	
	CE 452	Transportation Engineering Sessional II	3	1.5	
			7	5.5	
8.	CE 465	Ground Water Engineering	2	2	2+2+1.5
	CE 469	River Engineering	2	2	
	CE 471	Hydraulic Structures	2	2	
	CE 472	Water Resources Engineering Sessional	3	1.5	
			7	5.5	
Total:			25	17.5	
Any 2 combination from serial 4 to 8 (11 credits)					
Sub Total :			25	17.5	
Grand Total :			198	162	

COMPUTER SCIENCE & ENGINEERING

Total Credit Hours-162.00

Level-1, Term-I

Course Code	Course Title	Contact Hour	Credit Hour
EECE 163	Electrical Circuit Analysis	3	3
EECE 164	Electrical Circuit Analysis Sessional	1.5	0.75
Math 141	Mathematics-I (Differential Calculus and Co-ordinate Geometry)	3	3
Phy 103	Physics	3	3
Hum 101	English	3	3
Hum 102	English Sessional	3	1.5
CSE 101	Discrete Mathematics	3	3
CSE 103	Computer Fundamentals	2	2
CSE 104	Computer Fundamentals Sessional	1.5	0.75
Total:		23	20

Level-1, Term-II

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
Hum 103	Engineering Economics	2	2	
Math 143	Mathematics-II (Integral Calculus, Ordinary and Partial Differential Equations)	4	4	Math 141
Chem 101	Chemistry	3	3	
EECE 169	Electronic Devices and Circuits	3	3	EECE 163
EECE 170	Electronic Devices and Circuits Sessional	1.5	0.75	
CE 150	Engineering Drawing & CAD Sessional	3	1.5	
CSE 105	Structured Programming Language	3	3	
CSE 106	Structured Programming Language Sessional	3	1.5	
ME 181	Basic Mechanical Engineering	2	2	
ME 182	Basic Mechanical Engineering Sessional	1.5	0.75	
Total:		26	21.5	

Level-2, Term-I

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
Math 245	Mathematics-III (Matrices, vectors and Fourier Analysis)	3	3	Math 143
EECE 269	Electrical Drives and Instrumentation	3	3	EECE 163
EECE 270	Electrical Drives and Instrumentation Sessional	1.5	0.75	
CSE 201	Digital Logic Design	3	3	EECE 163, EECE 169
CSE 202	Digital Logic Design Sessional	3	1.5	
CSE 203	Data Structures	3	3	CSE 105
CSE 204	Data Structures Sessional	3	1.5	
CSE 205	Object Oriented Programming Language	3	3	CSE 105
CSE 206	Object Oriented Programming Language Sessional	3	1.5	CSE 106
Total:		25.5	20.25	

Level -2, Term-II

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
Math 247	Mathematics – IV (Complex variable Laplace Transform and Statistics)	4	4	Math 245
CSE 208	Software Development Sessional	1.5	0.75	CSE 206
CSE 211	Digital Electronics and Pulse Technique	3	3	CSE 201
CSE 212	Digital Electronics and Pulse Technique Sessional	1.5	0.75	
CSE 213	Computer Architecture	3	3	CSE 201
CSE 215	Algorithms	3	3	CSE 203
CSE 216	Algorithms Sessional	3	1.5	
CSE 217	Theory of Computation	2	2	
CSE 219	Numerical Analysis	3	3	
Total:		24	21	

Level-3, Term-I

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
CSE 301	Mathematical Analysis for Computer Science	3	3	MATH 245
CSE 303	Compiler	3	3	CSE 217 CSE 215
CSE 304	Compiler Sessional	1.5	0.75	
CSE 305	Data Communication	3	3	
CSE 306	Data Communication Sessional	1.5	0.75	
CSE 307	Operating System	3	3	
CSE 308	Operating System Sessional	1.5	0.75	
CSE 309	Microprocessors, Microcontroller and Assembly Language	4	4	CSE 201
CSE 310	Microprocessors, Microcontroller and Assembly Language Sessional	3	1.5	
Total:		23.5	19.75	

Level-3, Term II

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
Hum 301	Financial and Managerial Accounting	2	2	
CSE 315	Digital System Design	3	3	CSE 309
CSE 316	Digital System Design Sessional	1.5	0.75	
CSE 317	Artificial Intelligence	3	3	CSE 215
CSE 318	Artificial Intelligence Sessional	1.5	0.75	
CSE 319	Tele-Communication Engineering	3	3	CSE 305
CSE 321	Database Management Systems	3	3	
CSE 322	Database Management Systems Sessional	3	1.5	
CSE 323	Software Engineering	3	3	
CSE 350	Industrial Attachment	4 Weeks	1	
Total:		23	21	

Level-4, Term-I

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
CSE 400	Project or Thesis	3	1.50	
CSE 401	System Analysis, Design and Development	3	3	CSE-323
CSE 402	System Analysis, Design and Development Sessional	1.50	0.75	
CSE 403	Computer Network	3	3	
CSE 404	Computer Network Sessional	3	1.50	
CSE 405	Computer Interfacing	3	3	CSE-309, CSE-315
CSE 406	Computer Interfacing Sessional	1.50	0.75	
CSE 4XX	Option-I	3	3	
HUM 40X	Option-II	2.00	2.00	
Total:		23.00	18.50	

Level-4, Term-II

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
CSE 400	Project or Thesis	6	3	
ME 461	Industrial Management	2	2	
CSE 411	VLSI Design	3	3	CSE 201
CSE 412	VLSI Design Sessional	1.5	0.75	
CSE 413	Computer Graphics	3	3	CSE 215
CSE 414	Computer Graphics Sessional	1.5	0.75	
CSE 415	Simulation and Modeling	3	3	CSE 301
CSE 416	Simulation and Modeling Sessional	1.5	0.75	
CSE 4XO	Option-III	3	3	
CSE 4XE	Option-III Sessional	1.5	0.75	
Total:		26	20	

Option-I

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
CSE 421	Basic Graph Theory	3	3	CSE 215
CSE 423	Fault Tolerant System	3	3	MATH 143
CSE 425	Basic Multimedia Theory	3	3	-
CSE 427	Digital Image Processing	3	3	MATH 247
CSE 429	Data mining & Warehousing	3	3	CSE 321
CSE 431	Object Oriented Software Engineering	3	3	CSE 205 CSE 323
CSE 433	Artificial Neural System	3	3	CSE 317

Option-II

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
HUM 401	Business Law	2	2	
HUM 403	Government	2	2	
HUM 405	Sociology	2	2	
HUM 407	Engineering Ethics	2	2	

Option-III (All Group)

Course Code	Course Title	Contact Hour	Credit Hour	Pre-requisite
CSE 441	Machine Learning	3	3	CSE 307
CSE 442	Machine Learning Sessional	1.5	0.75	
CSE 443	Pattern Recognition	3	3	
CSE 444	Pattern Recognition Sessional	1.5	0.75	

Network and Communication Group

Course Code	Course Title	Contact Hour		Credit Hour	Pre-requisite
		Theory	Sessional		
CSE 445	Digital Signal Processing	3	-	3	
CSE 446	Digital Signal Processing Sessional	-	1.5	0.75	
CSE 447	Advanced Networks Programming	3	-	3	CSE 403
CSE 448	Advanced Networks Programming Sessional	-	1.5	0.75	
CSE 449	Mobile and Ubiquitous Computing	3	-	3	
CSE 450	Mobile and Ubiquitous Computing Sessional	-	1.5	0.75	

Software Engineering Group

Course Code	Course Title	Contact hours/week		Credit Hour	Pre-requisite
		Theory	Sessional		
CSE 451	Parallel Algorithms	3	-	3	CSE 215
CSE 452	Parallel Algorithms Sessional	-	1.5	0.75	
CSE 453	Internetworking and Web Design	3	-	3	CSE 101
CSE 454	Internetworking and Web Design Sessional	-	1.5	0.75	

ELECTRICAL, ELECTRONIC & COMMUNICATION ENGINEERING

Total Credit Hours: 158.5

Level-1, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 101	Electrical Circuits I	3	3
PHY 111	Phy I (Waves and Oscillation, Optics and Thermal Physics)	3	3
PHY 112	Phy I Laboratory	3	1.5
MATH 111	Differential and Integral Calculus	4	4
CE 152	Engineering Drawing	3	1.5
CHEM 101	Chem I	3	3
CHEM 114	Inorganic and Quantitative Analysis Laboratory	3	1.5
HUM 127	Sociology	3	3
Total:		25	20.5

Level-1, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 105	Electrical Circuits II	3	3
EECE 106	Electrical Circuits Laboratory	3	1.5
EECE 110	Electrical Circuits Simulation Laboratory	3	1.5
PHY 113	Phy II (Electricity and Magnetism, Modern Physics and Mechanics)	3	3
PHY 114	Phy II Laboratory	3	1.5
MATH 115	Vector analysis, Matrices and Geometry	4	4
CSE 109	Computer Programming	3	3
CSE 110	Computer Programming Laboratory	3	1.5
Total:		25	19

Level-2, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 201	Electronics I	3	3
EECE 203	Electrical Machines I	3	3
ME 263	Fundamentals of Mechanical Engineering	3	3
ME 264	Fundamentals of Mechanical Engineering Laboratory	3	1.5
Math 211	Math (Ordinary and Practical Differential equation) (3)	3	3
Hum 235	English	3	3
Hum 272	Developing English Skills Laboratory	3	1.5
Hum 277	Fundamentals of Economics	3	3
Total:		24	21

Level-2, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 205	Electrical Machines II	3	3
EECE 206	Electrical Machines laboratory	3	1.5
EECE 207	Electronics II	3	3
EECE 208	Electronics Laboratory	3	1.5
EECE 210	Electronic Circuit Simulation Laboratory	3	1.5
EECE 212	Numerical Technique Laboratory	3	1.5
Math 213	Math (Complex Variable & Statistics) (4)	4	4
Hum 279	Financial and Managerial Accounting	3	3
Total:		25	19

Level-3, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 301	Continuous Signals and Linear Systems	3	3
EECE 303	Digital Electronics	3	3
EECE 304	Digital Electronics Laboratory	3	1.5
EECE 305	Power System I	3	3
EECE 306	Power System I Lab	3	1.5
EECE 307	Electrical Properties of Material	3	3
EECE 313	Instrumentation and Measurement	3	3
EECE 314	Electrical Services Design	3	1.5
Total:		24	19.5

Level-3, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
ME 393	Industrial Management	3	3
EECE 309	Communication Theory	3	3
EECE 310	Communication Laboratory	3	1.5
EECE 311	Digital Signal Processing I	3	3
EECE 312	Digital Signal Processing I Laboratory	3	1.5
EECE 315	VLSI-1	3	3
EECE 316	VLSI-1 Lab	3	1.5
EECE 317	Engineering Electromagnets	3	3
EECE 320 #	Industrial Training/attachment	3/4 weeks	1
Total:		24	20.5

#EECE 320 (Industrial Training/attachment) will be conducted after the term end exam of term-2.

Level-4, Term-I

Course Code	Course Name	Contact Hour	Credit Hour
EECE 400	Project/ Thesis	6	3
EECE 401	Control System I	3	3
EECE 402	Control System I Laboratory	3	1.5
EECE 403	Telecommunication Engineering	3	3
EECE 405	Solid State Devices	3	3
EECE 4 **	Elective I	3	3
EECE 4 **	Elective II	3	3
EECE 4 **	Elective II Lab	3	1.5
Total:		27	21

Level-4, Term-II

Course Code	Course Name	Contact Hour	Credit Hour
EECE 400	Project/Thesis	6	3
EECE 407	Microprocessors and Interfacing	3	3
EECE 408	Microprocessor and Interfacing Laboratory	3	1.5
EECE 4 **	Elective III	3	3
EECE 4 **	Elective IV	3	3
EECE 4 **	Elective V	3	3
EECE 4 **	Elective V Laboratory	3	1.5
Total:		24	18

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 respective group. The remaining (2) elective theory courses may be selected from the respective group or other groups or interdisciplinary group or combination of these groups.

Power

Course Code	Course Name	Credit Hour
EECE 471	Power System II	3
EECE 473	Power Electronics	3
EECE 474	Power Electronics Laboratory	1.5
EECE 475	Power Plant Engineering	3
EECE 477 or EECE 483	Power System Protection OR High Voltage Engineering	3
EECE 478 or EECE 484	Power System Protection Laboratory OR High Voltage Engineering Laboratory	1.5
EECE 479	Power System Reliability	3
EECE 481	Power System Operation and Control	3
EECE 485	Electrical Machines III	3

Electronics

Course Code	Course Name	Credit Hour
EECE 451	Processing and Fabrication Technology	3
EECE 453	Analog Integrated Circuits	3
EECE 455	Compound Semiconductor and Hetero-junction Device	3
EECE 457	VLSI II	3
EECE 458	VLSI II Laboratory	1.5
EECE 459	Opto-electronics	3
EECE 461	Semiconductor Device Theory	3

Communication

Course Code	Course Name	Credit Hour
EECE 431	Digital Signal Processing II	3
EECE 433	Microwave Engineering	3
EECE 434	Microwave Engineering laboratory	1.5
EECE 435	Optical Fiber Communication	3
EECE 437	Digital Communication	3
EECE 438	Digital Communication Laboratory	1.5
EECE 439	Mobile Cellular Communication	3
EECE 441	Random Signals and Processes	3
EECE 443	Satellite Communication	3
EECE 444	Satellite Communication Laboratory	1.5

Interdisciplinary

Course Code	Course Name	Credit Hour
EECE 421	Control System II	3
EECE 422	Control System II Laboratory	1.5
EECE 423	Numerical Methods	3
EECE 424	Numerical Methods Laboratory	1.5
EECE 425	Biomedical Instrumentation	3
EECE 426	Biomedical Instrumentation Laboratory	1.5
EECE 427	Radar Engineering	3
EECE 428	Radar Engineering Laboratory	1.5
EECE 491	Sonar and Underwater Engineering	3
EECE 492	Sonar and Underwater Engineering Laboratory	1.5
EECE 293	Electronic Warfare	3
EECE 494	Electronic Warfare Laboratory	1.5
EECE 495	Avionics Engineering	3
EECE 496	Avionics Engineering laboratory	1.5
CSE 451	Computer Networks	3
CSE 452	Computer Networks Laboratory	1.5
CSE 491	Microprocessor System Design	3
CSE 492	Microprocessor System Design Laboratory	1.5

MECHANICAL ENGINEERING DEGREE

Total Credit Hours: 162.00

LEVEL-1, TERM-I

Course Code	Course Name	Contact Hour	Credit Hour
Phy 105	Structure of Matter, Electricity and Magnetism and Modern Physics	3	3
Chem 101	Chemistry-1	3	3
Math 161	Differential and Integral Calculus	4	4
ME 161	Introduction to Mechanical Engineering	3	3
EECE 159	Fundamentals of Electrical Engineering	3	3
Chem 114	Inorganic Quantitative Analysis Sessional	3	1.5
EECE 160	Fundamental of Electrical Engineering Sessional	3/2	0.75
Shop 160	Foundry and Welding Shop Sessional	3/2	0.75
ME 160	Mechanical Engineering Drawing-1	3	1.5
Total:		25	20.5

LEVEL-1, TERM-II

Course Code	Course Name	Contact Hour	Credit Hour
Phy 107	Waves and Oscillation, Geometrical Optics and Wave Mechanics	3	3
Phy 102	Physics Sessional	3	1.5
ME 172	Computer Programming Language Sessional	3/2	0.75
Shop 170	Machine Shop Practice	3/2	0.75
Total:		24	19.5

LEVEL -2, TERM - I

Course Code	Course Name	Contact Hour	Credit Hour
ME 241	Engineering Mechanics	4	4
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	3	3
EECE 260	Electrical and Electronics Technology Sessional	3	1.5
ME 202	Basic Thermodynamics Sessional	3/2	0.75
Total:		23.5	21.25

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 ¹	Select from the prescribed courses	3	3.00
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	1.50
Total:		23.5	19.75

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
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
Total:		25	20.5

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
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	0.75
Total:		23.5 + 04 Weeks	20.5

*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:

- 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
- Students can choose from optional courses offered by the Department of Mechanical Engineering.

AERONAUTICAL ENGINEERING DEGREE

Total Credit Hours: 160.75

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 110	Workshop Technology Sessional -I	3/2	0.75
Total:		25.5	20.25

LEVEL 1, TERM-II (Aerospace & 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	3/2	0.75
Total:		26.5	21.25

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 211	Fundamentals of Electronics	4	4
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-212	Fundamentals of Electronics Sessional	1.50	0.75
Total:		21.5	19.25

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
Hum XXX	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:		22	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
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:		22.5	18.75

LEVEL-2, TERM-II (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS 203	Fundamentals of Fluid Mechanics	3	3
AEAV 207	Electronics – II	3	3
AEAV 209	Electro-mechanical System	3	3
AEAS 207	Thermodynamics	3	3
Math 225	Math V (Fourier Analysis and Statistics)	3	3
AEAV 208	Electronics– II Sessional	3	1.5
AEAS 208	Thermodynamics Sessional	1.5	0.75
AEAV 210	Electro-mechanical System Sessional	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	4	4
AEAS-305	Aerospace Propulsion	4	4
AEAS-307	Aircraft Loading & Structure Analysis	3	3
AEAS-309	Material Science	3	3
AEAS-302	Heat Transfer Sessional	1.5	0.75
AEAS-304	Experimental Aerodynamics Sessional	1.5	0.75
AEAS-306	Aerospace Propulsion Sessional	1.5	0.75
AEAS-310	Material Science Sessional	3	1.5
Total:		24.5	20.75

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 305	Communication Engineering	3	3
AEAS 303	Applied Aerodynamics and Computational Fluid Dynamics	4	4
Hum YYY	Select from the prescribed courses (YYY)	2	2
AEAV 302	Digital Systems Sessional	3	1.5
AEAS 304	Experimental Aerodynamics Sessional	1.5	0.75
AEAV 306	Communication Engineering Sessional	1.5	0.75
		22.5	18

LEVEL-3, TERM-II (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-311	Test and Measurement	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
AEAS-312	Test and Measurement Sessional	1.5	0.75
AEAS-320	Machine Design Sessional	3	1.5
Total:		20.5	19.25

LEVEL-3, TERM – II (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV-307	Electro-Magnetic Field Theory	3	3
AEAS- 309	Test and Measurement	3	3
AEAV-311	Aero-measurement and Instrumentation	3	3
AEAV-313	Digital Signal Processing	3	3
AEAV-315	Guidance, Navigation and Control	3	3
AE-300	Industrial Training	4 weeks	1
AEAS- 312	Test and Measurement Sessional	1.5	0.75
AEAV-312	Aero-measurement and Instrumentation Sessional	3	1.5
AEAV-314	Digital Signal Processing Sessional	3	1.5
Total:		22.5	19.75

LEVEL-4, TERM-I (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-401	Computational Structural Analysis	3	3
AEAS-403	Product Design and Development & Operation Management	4	4
AEAS-405	Aerospace Vehicle Design	3	3
AEAV-427	Control System	3	3
AEAS-XXX(1)	Select from prescribed optional courses	3	3
AEAV-400	Project and Thesis	6	3
AEAS-406	Aerospace Vehicle Design Sessional	1.5	0.75
AEAV-416	Wind Tunnel Testing Sessional	1.5	0.75
Total:		25	20.5

LEVEL-4, TERM – I (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV-401	Microwave Engineering	3	3
AEAV-403	Feedback Control System	3	3
AEAS-409	Production, Planning and Control	3	3
AEAS-433	Advanced Aerospace Technology	3	3
AEAV-XXX	Selected from prescribed optional courses	3	3
AEAV-400	Project and Thesis – 1	6	3
AEAV-402	Microwave Engineering Sessional	3	1.5
AEAV-404	Feedback Control System Sessional	1.5	0.75
AEAS-414	Advanced Aerospace Technology Sessional	1.5	0.75
Total:		27	21

LEVEL-4, TERM-II (Aerospace)

Course Code	Course Name	Contact Hour	Credit Hour
AEAS-407	Turbo Machinery	3	3
AEAS-409	Production, Planning and Control	3	3
AEAS-413	Space Engineering	4	4
AEAV-425	Advanced Avionics Technology	4	4
AEAS-YYY	Select from prescribed optional courses	3	3
AEAV-400	Project and Thesis Sessional	6	3
AEAV-426	Advanced Avionics Technology Sessional	1.5	0.75
Total:		24.5	20.75

LEVEL- 4, TERM – II (Avionics)

Course Code	Course Name	Contact Hour	Credit Hour
AEAV-405	Avionics Engineering	3	3
AEAV-407	Radar Engineering	3	3
AEAV-409	Microprocessor and Interfacing	3	3
AEAS-403	Product Design & Development and Operations Management	3	3
AEAV- YYY	Select from prescribed optional courses	3	3
AEAV -400	Project and Thesis – II	6	3
AEAV-408	Radar Engineering Sessional	1.5	0.75
AEAV-410	Microprocessor and Interfacing Sessional	1.5	0.75
AEAV- XXX	Optional II Sessional	3	0.75
Total:		27	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-417	Air Field Procedure	4-I	3	3
AEAS-419	Maintenance Management and Repair of Aircraft	4-I	3	3
AEAS-421	Aviation Safety	4-I	3	3
AEAS-423	Aerospace Management	4-I	3	3
AEAS-425	Pressurization and Air Conditioning systems	4-II	3	3
AEAS-427	Noise Control and Vibration	4-II	3	3
AEAS-429	Rotorcraft Performance	4-II	3	3
AEAS-431	Weapons Engineering	4-II	3	3
AEAS 435	Aircraft Structural Design	4-II	3	3

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-417	Air Field Procedure	4-I	3	3
AEAS-419	Maintenance Management and Repair of Aircraft	4-I	3	3
AEAS-421	Aviation Safety	4-I	3	3
AEAS-423	Aerospace Management	4-I	3	3
AEAV-413	Mobile Cellular Communication	4-I	3	3
AEAV-415	Satellite Communication	4-I	3	3
AEAV-417	Optoelectronics	4-I	3	3
AEAV-419	Electronics Warfare	4-I	3	3
AEAV-421	Optical Fiber Communication	4-II	3	3
AEAV-422	Optical Fiber Communication Sessional	4-II	3	0.75
AEAV-423	Digital Communication	4-II	3	3
AEAV-424	Digital Communication Sessional	4-II	3	0.75
AEAV-435	Computer Networks	4-II	3	3
AEAV-436	Computer Networks Sessional	4-II	3	0.75

List of Science & Humanities Courses (Hum XXX, Hum YYY)

Course Code	Course Name
Hum- 205	Economics
Hum- 207	Government
Hum- 209	Sociology
Hum- 211	Principles of Accounting
Hum- 221	Engineering Ethics

IMPORTANT CONTACT NUMBERS

- + Director Academic (Dean): 8035178
- + Director Admin: 9013166
- + Colonel Staff: 9011414
- + Director R&D: 9011362
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