



# MIST

Military Institute of Science and Technology



**Technology for Advancement**

# MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY



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

## **PREFACE**

ary Institute of Science and Technology (MIST), the pioneer technical institutes of Armed Forces, started its journey from 19 through unveiling of the foundation plaque by the honourable Prime Minister, People's Republic of Bangladesh, Sheikh Hasina. It came into breathing when the academic program was launched on 31 January 1999 with the maiden batch of Civil Engineering. The pioneer batches comprised of only military students (session 2001-2002). Civil students (both male and female) were admitted in various disciplines in the session 2002-2003. Aeronautical Engineering programme started functioning from academic session 2003-2004. Foreign students were admitted first time in the same session. MIST envisages to create facilities for military as well as for students from home and abroad dedicated to pursue standard curriculum leading to graduation and post graduation degree. A commitment without any gender bias, MIST is already on steady stride upholding its motto "**Technology for Advancement**". The institute is committed to contributing to the wider spectrum of national educational arena and plays a significant role in the development of human resources.

## **LOCATION**

MIST is located at Mirpur Cantonment, on the northwest edge of Dhaka City. Mirpur Cantonment is well known to be as an Educational Zone of Bangladesh Armed Forces, a hub of knowledge for military professionals. Prestigious institutions like Bangladesh University of Professionals (BUP), National Defence College (NDC) and Defence Services Command and Staff College (DSCSC) including MIST are located in this cantonment. It's quiet and serene environment offers very congenial academic atmosphere in all the campuses. Nature's bounty makes MIST an enchanting campus - ever endearing to the young.

## **AIM**

The main aim of MIST is to conduct undergraduate and postgraduate courses on various disciplines of engineering leading to the degree and diploma in Engineering.

## **OBJECTIVES**

The objectives of MIST are as follows:

- 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 completed 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 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 institute.

## **CAPABILITIES**

Capabilities of MIST are as follows:

To conduct under-graduation programs leading to B.Sc. Degrees in the following disciplines:

- Civil Engineering (CE)
- Computer Science and Engineering (CSE)
- Electrical, Electronic & Communication Engineering (EECE)
- Mechanical Engineering (ME) and
- Aeronautical Engineering (AE)

To conduct Post Graduate/ Masters Program whenever appropriate.

To conduct diploma courses in Surveying & Mapping.

To conduct diploma and certificate courses in Computer Science & Engineering.

To conduct professional advanced courses.

## **AFFILIATION**

Academic programs of MIST are affiliated with the BUP. All examinations are conducted as per the schedule approved by the university. BUP also approves the results and awards certificates amongst the passed/qualified/successful students.

## **TEACHING DEPARTMENTS**

MIST has following teaching departments for conducting various academic programs:

- Dept of Civil Engineering (CE)
- Dept of Computer Science and Engineering (CSE)
- Dept of Electrical, Electronic and Communication Engineering (EECE)
- Dept of Mechanical Engineering (ME)
- Dept of Aeronautical Engineering (AE) and
- Dept of Science and Humanities (Sc & Hum)

## **TEACHING STAFFS**

Group of qualified instructors, teachers drawn from military as well as from civilian community are relentlessly engaged in imparting knowledge to the students. In addition, teachers from BUET, DU etc conduct classes on particular subjects/courses. Guest lecturers/teachers from various organisations/institution/universities are also invited to participate in our teaching programs.

## **INTAKES**

The number of students in each of the B.Sc. Engineering Program of CE, CSE, EECE, ME and AE at undergraduate level 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 breakdown is as follows:

<b>Ser</b>	<b>Events</b>	<b>Duration</b>
1	Classes	07 weeks
2	Mid Term Break	01 weeks
3	Classes	07 weeks
4	Recess before Term Final Examination	02 weeks
5	Term Final Examination	03 weeks
6	Term End Break	02 weeks
	<b>Total</b>	<b>22 Weeks</b>

All academic activities are conducted as per Academic Calendar approved by Academic Council of MIST before commencement of the academic year. Programs.

## **RECOGNITION OF PERFORMANCE**

To inspire the students for excellent result and as a mark of recognition to it, MIST awards “**MIST Medal**” to the meritorious students. The names of the students are listed in the **Commandant’s List**, **Dean’s List** and **Osmany Memorial Medal**. The criteria for eligibility are as follows:

### **MIST Medal**

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**

Students earning CGPA 3.8 at the end of each academic level.

### **’s List**

Students earning CGPA between 3.7 to 3.8 at the end of each academic level.

### **Osmany Memorial Medal**

Expected that from next session a new medal “ Osmany Memorial Medal” will be introduced. It shall be awarded to the best student among MIST Medal holders.

## **FACILITIES AVAILABLE**

### **Students’ Accommodation**

..., in principle is a residential institute. But it may not be possible to accommodate all civil students in the residential hall. The northern residential hall named ‘**Osmany Hall**’ can accommodate 520 students ( male 260 and female 260).

### **Library**

... has a well-arranged library enriched with about 28,460 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 a library enriched with adequate text and reference books. It also subscribes e-journal and provides internet browsing facilities. The library development process is on and progressing fast.

### **Medical Support**

Students are provided with medical facilities by MIST Medical Centre. As prescribed by the Medical Officer, MIST Medical Centre provide required medicine and other necessary support as per the existing Medical Policy.

## **REGULATORY BODIES**

### **Council of MIST**

- ❖ **Chairman:** Hon'ble 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 (PSO), Armed Forces Division (AFD).
- Engineer in Chief (E in C), Army Headquarters (AHQ), Bangladesh Army.
- Vice Chancellor (VC), BUP.
- Commandant (Comdt), 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, Dhaka University (DU).
- Representative of the VC, Bangladesh University of Engineering Technology (BUET).

❖ **Secretary:** Colonel Staff, MIST.

**erning Body**

❖ **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.
- Director Academic (Dean), MIST.
- Representative of the VC, DU.
- Representative of the Faculty of Science, DU.
- Representative of the VC, BUET.
- Representative of the VC, BUP.
- Director, Research & Development (R&D) MIST.
- Director, Administration, MIST.
- Representative of MOD.

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

## **Academic Council**

❖ **Chairman** : Commandant, MIST.

❖ **Members.**

- Representative of Training Directorate, Armed Forces Division (AFD).
- Representative of Military Training Directorate, Army Headquarters (AHQ).
- Representative of Naval Training Directorate, Naval Headquarters (NHQ).
- Representative of Air Training Directorate, Air Headquarters (Air HQ).
- Director Academic (Dean), MIST.
- Director, (R&D), MIST.
- Director, Administration, MIST.
- Colonel Staff, MIST.
- Heads of all Departments, MIST.
- All Senior Instructors/ Professors of all departments 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 (04) subjects including Mathematics, Physics, Chemistry & English and minimum "A-" (A minus) grade in rest two (02) subjects.
- Candidates 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.
- Candidates 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.
- The candidates who have passed HSC or equivalent examination in the current year or one year before the notification of admission can apply.
- Sex Category – Male and Female.

### **Foreign Students**

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

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

## **NUMBER OF SEATS**

### **General Seats**

Authority will determine the total number of seats/vacancies for each program. Distribution of seats/vacancies is given below. The maximum number of seats for 4 years bachelor degree in engineering program is 65 for each department. The total number is 320. Generally about 50% seats will be allocated to military officers.

### **Reserved Seats**

- Military Ward - 15%
- Freedom Fighters Ward – 2%
- Tribal Citizen – 1%
- Foreign Students (civil) – 3%

## **SUBMISSION OF APPLICATION**

### **Application Form**

Permanent citizens of Bangladesh are to apply in prescribed form. Application form and prospectus may be obtained directly from the Institute or by cash payment of Tk. 500.00 (Tk. five hundreds only) or by sending Pay Order/Bank Draft of the required fees in favour of "MIST Students Admission Fund, MIST", Trust Bank Ltd, Mirpur Cantonment Branch. All admission related papers mentioned above may be obtained by post if a self addressed envelop of 16 inches X 12 inches size bearing postage stamp of Tk 65.00 (sixty five only) is enclosed with the application form. The application form is to be submitted along with a pay order of Tk 500.00 (five hundreds only).

### **Required Documents**

The following documents are to be enclosed with the application form:

- Attested copies of certificates and marksheet of SSC/Dakhil or equivalent examination.
- Attested copies of certificate and marksheet 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 attended institute.
- Nationality certificate from the respective Chairman of UP/Municipality or appropriate Authority of City Corporation.
- For Freedom Fighters' Ward; attested 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 military ward; certificate for Children of Armed Forces Personnel authenticated by respective Commanding Officer (for serving parents) and by Record Office of respective services (for retired parents).

## **ADMISSION TEST**

### **Selection of Candidates**

Merit list 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 approximately 2000 (two thousands) short listed candidates will be allowed to appear in the written admission test. However, all eligible candidates of reserved seats (Military Ward, Freedom Fighter Ward & T) 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-bd.org](http://www.mist-bd.org)).

### **Subjects and Syllabus**

Subjects	Syllabus
Mathematics	Syllabi of the current year of HSC Examinations of all board of Intermediate and Secondary Education.
Physics	
Chemistry	
English	

### **Distribution of Marks**

Ser	Subjects	Marks
1	Mathematics	80
2	Physics	60
3	Chemistry	40
4	English	20
<b>Total</b>		<b>200</b>

## **FINAL SELECTION**

Minimum qualifying marks in the written admission test is 40%. But in the special circumstances, for fulfillment 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 Test- 75%
- GPA of SSC/Dakhil/"O" level/equivalent examination without 4th subject-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 and web site of MIST ([www.mist-bd.org](http://www.mist-bd.org)).

# **ADMISSION PROCEDURE**

## **Medical Check up**

Candidates selected provisionally are to undergo medical check-up at MIST MI Room. They will have to produce test reports 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 requirements.

## **Department Allotment**

Departments will be allotted on the basis of individual merit position in the admission test. Individual choice for selection of department will be given preference as far as possible.

## **Guardian's Consent**

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

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

Category	Amount (Taka)	Remarks
Admission Form Fee	500.00	Application Form 50.00 and Prospectus 450.00
Admission Fee (Once during admission)	10,000.00	Non refundable
Readmission Fee	5,000.00	When applicable
Tuition Fee (Monthly)	300.00	
Security Money/Caution Money (Once during admission)	20,000.00	Refundable after completing the program.
Library Fee (Once during admission)	4,000.00	Nonrefundable
Registration Fee (One time)	450.00	As set by BUP
Exam Fee (Term wise)	3,000.00	As set by BUP
Center Fee (Term wise)	500.00	As set by MIST.
Grade Sheet Fee (Term wise)	450.00	As set by BUP.
Exam Entry Form Fee (Term wise)	30.00	As set by BUP.
Course Registration Fee (Per credit hour)	100.00	
Medical Fee (Monthly)	300.00	
Sports Fee (Monthly)	100.00	
Students welfare Fee (Monthly)	350.00	
Lab & Training Equipments Maintenance Fee (Monthly)	200.00	

## HALL CHARGES

Hall charges for residential civil students are as follows:

Ser	Name of Head	Amount (Taka)	Remark
1	Security Deposit (One time)	5,000.00	Refundable
2	Mess Advance (One time)	2,000.00	Refundable
3	Admission Fee (One time)	1,000.00	Not Refundable
4	Readmission Fee	500.00	When Applicable
5	Identity Card (For each time)	100.00	
6	Establishment Charges	850.00	Monthly
7	Seat Rent	300.00	„
8	Utilities	250.00	„
9	Maintenance & Cleaning	100.00	„
10	Common Room Subscription	50.00	„
11	Contingencies	50.00	„
12	Messing	As per Mess bill	„

## **LABORATORY FACILITIES**

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

### **Dept of CE**

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

### **Dept of CSE**

- Network Laboratory.
- Software Engineering Laboratory.
- Artificial Intelligence and Very Large Scale Integration (VLSI) Laboratory.
- Micro Processor and Micro Controller Laboratory.
- Digital Laboratory.
- Interfacing Laboratory.
- Teachers' PC Laboratory.

### **Dept of EECE.**

- Electrical Circuit Laboratory.
- Switch Gear & Protection Laboratory.
- Electronics & Digital Laboratory.
- Instrumentation & Control Lab Laboratory.
- Telephone Line & Exchange Laboratory.
- Machine Laboratory.

### **Dept of ME**

- 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)

### **Dept of AE**

- Fluid Mechanics Laboratory.
- Measurement & Quality Control Laboratory.
- Applied Mechanics Laboratory.
- Material Science Laboratory.
- Propulsion (Aero-Engine) Laboratory.
- Strength of Material Laboratory.
- Avionics and Ground Electronics Laboratory.
- Computer Laboratory.
- Drawing Shop. (CAD Lab)

### **Dept of Science & Humanities**

- Chemistry Laboratory.
- Physics Laboratory.

## **COURSE PATTERN AND CREDIT STRUCTURE**

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

### **Theoretical Courses**

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**

Salient features of the course system are as follows:

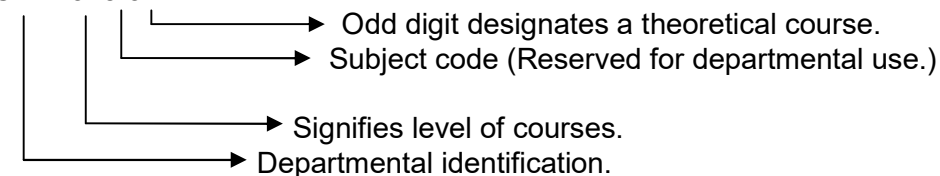
- Introduction of letter grades and grade points instead of numerical grades following the guidelines of University Grants Commission (UGC).
- Continuous evaluation of student performance.
- Promotion of student –teacher relation.

## **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 courses and an even number for sessional courses.

CSE 3 5 3



## **DISTRIBUTION OF CREDIT HOURS**

### **of CE**

Department of Civil Engineering (CE) offers B.Sc. in Civil Engineering degree. Total credit hour covered is 162.00 Level and Term-wise distribution of credit hour is given below:

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
<b>Total Credit Hours:</b>		<b>162.00</b>

### **of CSE**

Department of Computer Science & Engineering (CSE) offers B.Sc. in Computer Science and Engineering degree. Total credit hour covered is 162.00 Level and Term wise distribution of credit hour is given below:

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
<b>Total Credit Hours:</b>		<b>162.00</b>

### **of EECE**

Department of Electrical, Electronics & Communication Engineering (EECE) offers B.Sc. in Electrical, Electronics & Communication Engineering degree. Total credit hour covered is 157.50 Level and Term wise distribution of credit hour is given below:

Level	Term	Credit Hour
1	I	20.50
	II	19.00
2	I	21.00

	II	19.00
3	I	19.50
	II	19.50
4	I	21.00
	II	18.00
<b>Total Credit Hours:</b>		<b>157.50</b>

### **Dept of ME**

Department of Mechanical Engineering (ME) offers B.Sc. in Mechanical Engineering degree. Total credit hour covered is 162.00 Level and Term wise distribution of credit hour is given below:

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
<b>Total Credit Hours:</b>		<b>162.00</b>

### **Dept of AE**

Department of Aeronautical Engineering (AE) offers B.Sc. in Aeronautical Engineering degree. Total credit hour covered is 160.75 Level and Term wise distribution of credit hour is given below:

Level	Term	Credit Hour
1	I	20.25
	II	21.25
2	I	19.25
	II	18.75
3	I	20.75
	II	19.25
4	I	20.50
	II	20.75
<b>Total Credit Hour:</b>		<b>160.75</b>

## **PROGRAM REQUIREMENTS**

Lists 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**

The 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. Assessment in sessional courses is made through observation of the student at work during the class, viva voce during lab hours, oral reports and quizzes. Each course has a certain number of credits, which describes its corresponding weights. A letter grade and 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:

<b>Grade</b>	<b>Grade Points</b>	<b>Numerical Marking</b>
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

70 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	05%
Class Attendance	05%
Homework Assignment and Class Test	20%
Final Examination (Sec A + Sec B)	70%
Total =	100%

### Marks in Class Participation and Attendance

Criteria for awarding marks for class participation and attendance are 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

Sessional or part of sessional courses will be conducted and assessed throughout the term. In addition, the concerned teacher will 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: GENERAL**

Military Institute of Science & Technology (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 is followed in every level of the program. The unsuccessful students will therefore be withdrawn from the institute.

### **DEFINITION OF THE TERMS**

#### **Permanent Withdrawal**

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

#### **Temporary Withdrawal**

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

#### **Permanent Expulsion**

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

#### **Temporary Expulsion**

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

### **GENERAL POLICY OF WITHDRAWAL**

Under graduate (B.Sc) Engineering programs, in the disciplines of Civil Engineering (CE), Electrical, Electronic & Communication Engineering (EECE), Mechanical Engineering (ME), Computer Science & Engineering (CSE) and Aeronautical Engineering (AE) are offered for 04 regular levels, comprising of 08 regular terms. It is expected that all students will earn degree by clearing all the 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 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 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 (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 required medical documents), students may be allowed to withdraw temporarily from that term and repeat the whole level with the respective 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 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.

### **encing Grades**

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

### **r Indiscipline Behaviour**

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

### **mediate Action by the Disciplinary Committee of MIST**

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**

### **anent Withdrawal**

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

### **porary Withdrawal**

A student, if he/she applies, may be allowed to withdraw temporarily from the program, subject to the approval of Academic Council, 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 in academic matters. Head of Department, Director of Administration, Director of Students Welfare (DSW), Dean and Commandant Address the student's concerns at regular intervals. More so, monthly Commandant's Parade is organised in MIST where all faculty members, staff and students are formally present, thereby increasing teacher-students 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 prohibited from forming or being members of student organization or political party, club, society etc, other than those set up by MIST authority. The aim is to enhance student's physical, intellectual, moral and ethical development.

## **STUDENTS' DRESS CODE**

All students are to wear dress with displayed identity card as per "Dress Code" prescribed by MIST authority. Military students wear their uniform as per Dress Regulation of respective services. Dresscode for civil Student is as under.

### **Students**

<b>Summer</b>	<b>Winter</b>
Ash colored half sleeved shirt, black trousers (with black belt), black leather shoes and black socks.	Ash colored full sleeved shirt, black trousers (with black belt), black leather shoes and black socks, Navy blue colored blazer and tie (MIST tie/sober color).

### **Female Students**

<b>Summer</b>	<b>Winter</b>
Light ash colored kamij (small round neck, half sleeved up to elbow and length up to knee), white salwar and dupatta, black ladies shoes and socks. Optional: a. Cream colored safari type apron (with three buttons). b. Light ash colored scarf.	Light ash colored kamij (small round neck, half sleeved up to elbow and length up to knee), white salwar and dupatta, black ladies shoes and socks. Optional: a. Navy blue cardigan/coat (Navy blue color). b. Black ladies shoes and socks.



**1<sup>ST</sup> COMDT WITH DELEGATION VISIT**



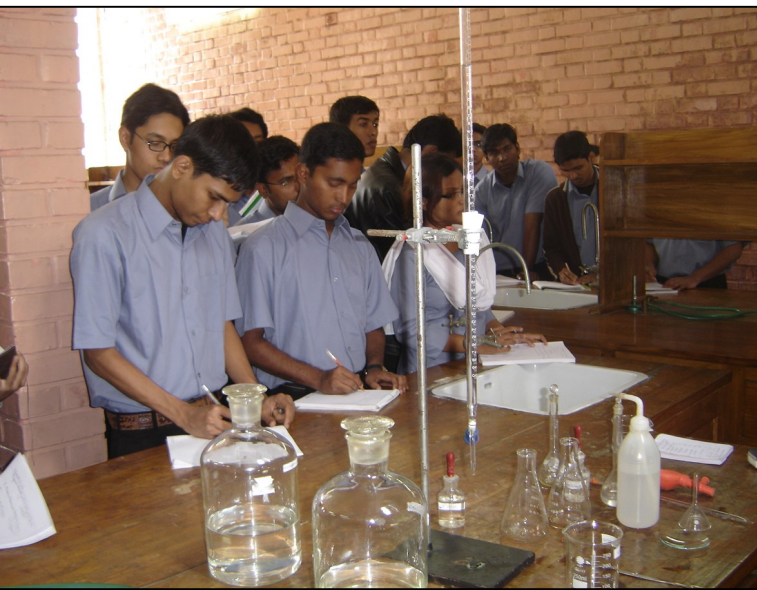
**2<sup>ND</sup> COMDT RECEIVING CHEQUE FROM "OSMANY MEMORIAL TRUST"**



**3<sup>RD</sup> COMDT PRAYING AFTER TREE PLANTATION**



**4<sup>TH</sup> COMDT VISITING LAB**



**CHEMISTRY LAB**



**MACHINE LAB**



**DIGITAL ELECTRONIC LAB**



**AUTO CAD LAB**



**WELDING SHOP**



**CYBER CETRE**



**TRAINING VISIT**



**TRAINING VISIT**



**DRESS CODE**



**ADMISSION TEST**



**CLASS IN PROGRESS**



**EXAM IN PROGRESS**



**MEDICAL CENTRE**



**CULTURAL COMPETITION**



**ATHLETICS COMPETITION**



**CHIEF GUEST WITH CHAMPION TEAM**



**SEMINAR ON: "NANO TECHNOLOGY"**



**SEMINAR ON: "SAVING DHAKA FROM FLOOD AND OTHER ENVIRONMENTAL HAZARDS"**



**ORIENTATION OF NEW INTAKES**



**CERTIFICATE HANDOVER CEREMONY**



**SURVEYING AT MIST**



**TREE PLANTATION**



**FITNESS CENTRE**



**CENTRAL LIBRARY**



**TEACHERS' ACCOMODATION**



**OSMANY HALL**



**MIST AT FUTURE**

# CIVIL ENGINEERING (CE)

## Level-2, Term -I

**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.	3.00	3.00
Phy 102	Physics Laboratory	3.00	1.50
Chem 103	Chemistry I/ Chemistry II	3.00	3.00
Chem 114	Inorganic Quantitative Analysis (Sessional)	3.00	1.50
Math 131	Mathematics I (Differential and Integral Calculus)	3.00	3.00
Hum 113	Government	1.00	1.00
CE 100	Civil Engineering Drawing I	3.00	1.50
CE 101	Engineering Mechanics	4.00	4.00
<b>Total</b>		<b>23.00</b>	<b>18.50</b>

### Level-1, Term-II

Course Code	Course Title	Contact Hour	Credit Hour
Phy 101	Physical Optics, Heat waves and Oscillation	3.00	3.00
EEE 165	Basic Electrical Technology	3.00	3.00
EEE 166	Basic Electrical Technology Laboratory	3.00	1.50
Hum 123	Economics	2.00	2.00
Math 133	Mathematics II (Vector Analysis, Matrices and Geometry)	3.00	3.00
CE 102	Civil Engineering Drawing II	3.00	1.50
CE 103	Surveying	4.00	4.00
Shop 132	Workshop	3.00	1.50
<b>Total</b>		<b>24.00</b>	<b>19.50</b>

Ser	Course Code	Course Title	Contact Hour	Cr H
1.	Math 231	Differential Equation and Partial Differential equations	3.00	3
2.	Hum 211	Sociology	2.00	2
3.	CE 200	Details of Construction	3.00	1
4.	CE 201	Engineering Material	4.00	4
5.	CE 202	Materials Sessional	3.00	1
6.	CE 203	Engineering Geology & Geomorphology	3.00	3
7.	CE 211	Mechanics of Solids-I	3.00	3
8.	CE 212	Structural Mechanics & Materials Sessional	3.00	1
<b>Total</b>			<b>24.00</b>	<b>19</b>

### Level-2, Term-II

Ser	Course Code	Course Title	Contact Hour	Cr H
1.	Math 235	Fourier Analysis, Harmonic Functions, Laplace Transform, Probability and Statistics	3.00	3
2.	Hum 221	English	2.00	2
3.	Hum 222	English Sessional	3.00	1
4.	CE 205	Numerical Methods & Computer Programming	3.00	3
5.	CE 206	Computer Programming Sessional	3.00	1
6.	CE 208	Quantity Surveying	3.00	1
7.	CE 213	Mechanics of Solids II	3.00	3
8.	CE 261	Fluid Mechanics	4.00	4
9.	CE 262	Fluid Mechanics Sessional	3.00	1
9.	CE 104	Practical Surveying	3 weeks	1
<b>Total</b>			<b>27.00</b>	<b>22</b>

**Level-3, Term-I**

Course Code	Course Title	Contact Hour	Credit Hour
CE 311	Structural Analysis & Design-I	3.00	3.00
CE 312	Structural Analysis & Design Sessional-I	3.00	1.50
CE 315	Design of Concrete Structures-I	4.00	4.00
CE 331	Environmental Engineering - I	3.00	3.00
CE 341	Geotechnical Engineering-I	4.00	4.00
CE 342	Geotechnical Engineering Sessional-I	3.00	1.50
CE 361	Open Channel Flow	4.00	4.00
CE 362	Open Channel Flow Sessional	3.00	1.50
<b>Total</b>		<b>27.00</b>	<b>22.50</b>

**Level-3, Term II**

Course Code	Course Title	Contact Hour	Credit Hour
CE 313	Structural Analysis & Design-II	3.00	3.00
CE 316	Concrete Structures Sessional	3.00	1.50
CE 317	Design of Concrete Structures-II	3.00	3.00
CE 332	Environmental Engineering Sessional- I	3.00	1.50
CE 342	Geotechnical Engineering-II	3.00	3.00
CE 353	Transportation Engineering-II (Highway Design & Railways)	4.00	4.00
CE 354	Transportation Engineering Sessional- I	3.00	1.50
CE 363	Hydrology	3.00	3.00
CE-300	Industrial Training	4Weeks	1.50
<b>Total</b>		<b>25.00</b>	<b>22.00</b>

**Level-4, Term I**

Ser	Course Code	Course Title	Contact Hour	Credit Hour
1.	CE 333	Environmental Engineering- II	4.	4
2.	CE 351	Transportation Engineering-I (Transport & Traffic Design)	3.0	3
3.	CE 400	Project & Thesis	3.0	1
4.	CE 401	Project Planning & Management	3.0	1
5.	CE 411	Structural Analysis & Design-III	4.0	4
6.	CE 461	Irrigation & Flood Control	3.0	3
7.	CE 462	Irrigation & Flood Control Sessional	3.0	1
<b>Total</b>			<b>23.0</b>	<b>2</b>

**Level-4, Term-II**

Course Code	Course Title	Contact Hour	Credit Hour	Remarks
CE 400	Project and Thesis	6.0	3.0	
CE 403/405/ 463	Professional Practices & Communication/ Socio-economic Aspects of Development Project/ Integrated Water Resources Planning & Management.	2.0	2.0	Any one
CE 412	Structural Analysis & Design Sessional –II	3.0	1.5	
CE 413	Theory of Elasticity & Elastic Instability of Structures	2.0	2.0	2.0+2.0+1.5
CE 415	Pre-stressed Concrete	2.0	2.0	
CE 417	Design of Steel Structures	2.0	2.0	
CE 419	Introduction to Finite Element Method	2.0	2.0	
CE 416	Structural Analysis & Design Sessional III	3.0	1.5	
		7.0	5.5	
CE 431	Environmental Engineering III	2.0	2.0	
CE 433	Environmental Engineering IV	2.0	2.0	
CE 435	Environmental Engineering V	2.0	2.0	
CE 432	Environmental Engineering Sessional II	3.0	1.5	
		7.0	5.5	
CE 441	Geotechnical Engineering III	2.0	2.0	2.0+2.0+1.5
CE 443	Geotechnical Engineering IV		2.0	
CE 445	Geotechnical Engineering V	2.0	2.0	
CE 442	Geotechnical Engineering Sessional II	2.0	1.5	
		7.0	5.5	

7	CE 451	Transportation Engineering III, (Traffic Planning & Management)	2.0	2.0	2.0+2.5
	CE 453	Transportation Engineering IV, Highway Drainage & Airports.	2.0	2.0	
	CE 455	Transportation Engineering V, Transport Project & Operations	2.0	2.0	
	CE 452	Transportation Engineering Sessional II	3.0	1.5	
7.0			5.5		
8.	CE 465	Ground Water Engineering	2.0	2.0	2.0+2.5
	CE 469	River Engineering	2.0	2.0	
	CE 471	Hydraulic Structures	2.0	2.0	
	CE-472	Water Resources Engineering Sessional	3.0	1.5	
7.0			5.5		
<b>Total</b>			<b>25.0</b>	<b>17.5</b>	
Any 2 combination from serial 4 to 8 (11 credits)					
S. Total :				25.00	17.50
G. Total :				198.00	162.00

**COMPUTER SCIENCE & ENGINEERING (CSE)****Level -2, Term-I****Total Credit Hours-162.00****Level-1, Term-I**

Course Code	Course Title	Contact Hour	Credit Hour
EECE 163	Electrical Circuit Analysis	3.00	3.00
EECE 164	Electrical Circuit Analysis Sessional	1.50	0.75
Math 141	Mathematics-I (Differential Calculus and Co-ordinate Geometry)	3.00	3.00
Phy-103	Physics	3.00	3.00
Hum-101	English	3.00	3.00
Hum-102	English Sessional	3.00	1.50
CSE-101	Discrete Mathematics	3.00	3.00
CSE-103	Computer Fundamental	2.00	2.00
CSE-104	Computer Fundamental Sessional	1.50	0.75
<b>Total</b>		<b>23.00</b>	<b>20.00</b>

**Level-1, Term-II**

Course Code	Course Title	Contact Hour	Credit Hour
Hum - 103	Engineering Economics	2.00	2.00
Math-143	Mathematics –II (Integral Calculus, Ordinary and Partial Differential Equations)	4.00	4.00
Chem-101	Chemistry	3.00	3.00
EECE-169	Electronic Devices and Circuits	3.00	3.00
EECE-170	Electronic Devices and Circuits Sessional	1.50	0.75
CE-150	Engineering Drawing & CAD Sessional	3.00	1.50
CSE-105	Structured Programming Language	3.00	3.00
CSE-105	Structured Programming Language Sessional	3.00	1.50
ME-181	Basic Mechanical Engineering	2.00	2.00
ME-182	Basic Mechanical Engineering Sessional	1.50	0.75
<b>Total</b>		<b>26.00</b>	<b>21.50</b>

Ser	Course Code	Course Title	Contact Hour	Credit Hour
1	Math-245	Mathematics-III (Matrices, vectors and Fourier Analysis)	3.00	3.00
2	EECE-269	Electrical Device and Instrumentation	3.00	3.00
3	EECE-270	Electrical Device and Instrumentation Sessional	1.50	0.75
4	CSE-201	Digital Logic Design	3.00	3.00
5	CSE-202	Digital Logic Design Sessional	3.00	1.50
6	CSE-203	Data Structures	3.00	3.00
7	CSE-204	Data Structures Sessional	3.00	1.50
8	CSE-205	Object Oriented Programming Language	3.00	3.00
9	CSE-206	Object Oriented Programming Language Sessional	3.00	1.50
<b>Total</b>			<b>25.50</b>	<b>20.25</b>

**Level -2, Term II**

Ser	Course Code	Course Title	Contact Hour	Credit Hour
1	Math-247	Mathematics – IV (Complex variable Laplace Transform and Statistics)	4.00	4.00
2	CSE-208	Software Development Sessional	1.50	0.75
3	CSE-211	Digital Electronics and Pulse Technique	3.00	3.00
4	CSE-212	Digital Electronics and Pulse Technique Sessional	1.50	0.75
5	CSE-213	Computer Architecture	3.00	3.00
6	CSE-215	Algorithms	3.00	3.00
7	CSE-216	Algorithms Sessional	3.00	1.50
8	CSE-217	Theory of Computation	2.00	2.00
9	CSE-219	Numerical Analysis	3.00	3.00
<b>Total</b>			<b>24.00</b>	<b>21.00</b>

**Level –3, Term I**

Course Code	Course Title	Contact Hour	Credit Hour	
CSE-301	Mathematical Analysis for Computer Science	3.00	3.00	MATH-245
CSE-303	Compiler	3.00	3.00	CSE-217, CSE-215
CSE-304	Compiler Sessional	1.50	0.75	
CSE-305	Data Communication	3.00	3.00	MATH-245
CSE-306	Data Communication Sessional	1.50	0.75	
CSE-307	Operating System	3.00	3.00	
CSE-308	Operating System Sessional	1.50	0.75	
CSE-309	Microprocessors, Microcontroller and Assembly Language	4.00	4.00	CSE-201
CSE-310	Microprocessors, Microcontroller and Assembly Language Sessional	3.00	1.50	
<b>Total</b>		<b>23.50</b>	<b>19.75</b>	

**Level –3, Term II**

Course Code	Course Title	Contact Hour	Credit Hour	
Hum-301	Financial and Managerial Accounting	2.00	2.00	
	Digital System Design	3.00	3.00	CSE-201 CSE-309 CSE-211
CSE-316	Digital System Design Sessional	1.50	0.75	
CSE-317	Artificial Intelligence	3.00	3.00	CSE-215
CSE-318	Artificial Intelligence Sessional	1.50	0.75	
CSE-319	Tele-Communication Engineering	3.00	3.00	CSE-305
CSE-321	Database Management Systems	3.00	3.00	
CSE-322	Database Management Systems Sessional	3.00	1.50	
CSE-323	Software Engineering	3.00	3.00	
CSE-350	Industrial Attachment	4 Week	1.00	
<b>Total</b>		<b>23.00</b>	<b>21.00</b>	

**Level –4, Term-I**

Ser	Course Code	Course Title	Contact Hour	Credit Hour	
1	CSE-400	Project and Thesis	3.00	1.50	
2	CSE-401	System Analysis, Design and Development	3.00	3.00	CSE
3	CSE-402	System Analysis, Design and Development Sessional	1.50	0.75	
4	CSE-403	Computer Network	3.00	3.00	
5	CSE-404	Computer Network Sessional	3.00	1.50	
6		Computer Interfacing	3.00	3.00	C 3 CSE
7	CSE-406	Computer Interfacing Sessional	1.50	0.75	
8	CSE-4XX	Option-I	3.00	3.00	
9	HUM-40X	Option-II	2.00	2.00	
<b>Total</b>			<b>23.00</b>	<b>18.50</b>	

**Level –4, Term-II**

Ser	Course Code	Course Title	Contact Hour	Credit Hour	
1	CSE-400	Project and Thesis	6.00	3.00	
2	ME-461	Industrial Management	2.00	2.00	
3	CSE-411	VLSI Design	3.00	3.00	C 2
4	CSE-412	VLSI Design Sessional	1.50	0.75	
5	CSE-413	Computer Graphics	3.00	3.00	C 2 MA 2
6	CSE-414	Computer Graphics Sessional	1.50	0.75	
7.	CSE-415	Simulation and Modeling	3.00	3.00	C 3
8.	CSE-416	Simulation and Modeling Sessional	1.50	0.75	
9.	CSE-4XO	Option-III	3.00	3.00	
10.	CSE-4XE	Option-III Sessional	1.50	0.75	
<b>Total</b>			<b>26.00</b>	<b>20.00</b>	

**ON-I**

Course Code	Course Title	Contact Hour	Credit Hour	Prerequisite
CSE-421	Basic Graph Theory	3.00	3.00	CSE-215
CSE-423	Fault Tolerant System	3.00	3.00	MATH-143
CSE-425	Basic Multimedia Theory	3.00	3.00	-
CSE-427	Digital Image Processing	3.00	3.00	MATH-247
CSE-429	Data mining & Warehousing	3.00	3.00	CSE-321
CSE-431	Object Oriented Software Engineering	3.00	3.00	CSE-205 CSE-323
CSE-433	Artificial Neural System	3.00	3.00	CSE-317

**ON-II**

Course Code	Course Title	Contact Hour	Credit Hour	Prerequisite
HUM-401	Business Law	2.00	2.00	
HUM-403	Government	2.00	2.00	
HUM-405	Sociology	2.00	2.00	
HUM-407	Engineering Ethics	2.00	2.00	

**ON-III**

Course Code	Course Title	Contact Hour	Credit Hour	Prerequisite
CSE-441	Machine Learning	3.00	3.00	CSE-307
CSE-442	Machine Learning Sessional	1.50	0.75	
CSE-443	Pattern Recognition	3.00	3.00	
CSE-444	Pattern Recognition Sessional	1.50	0.75	

**Network And Communication Group**

Course Code	Course Title	Contact hours/week		Credit Hour
		Theory	Sessional	
CSE-445	Digital Signal Processing	3.00	-	3.00
CSE-446	Digital Signal Processing Sessional	-	1.50	0.75
CSE-447	Advanced Networks Programming	3.00	-	3.00
CSE-448	Advanced Networks Programming 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

**Software Engineering Group**

Course Code	Course Title	Contact hours/week		Credit Hour
		Theory	Sessional	
CSE-451	Parallel Algorithms	3.00	-	3.00
CSE-452	Parallel Algorithms Sessional	-	1.50	0.75
CSE-453	Internetworking and Web Design	3.00	-	3.00
CSE-454	Internetworking and Web Design Sessional	-	1.50	0.75

**CTRICAL, ELECTRONIC & COMMUNICATION  
ENGINEERING (EECE)**

**Total Credit Hours: 157.5**

**Level -1, Term-I**

Course Code	Course Name	Contact Hour	Credit Hour
EECE 101	Electrical Circuits I	3.00	3.00
PHY 111	Phy I (Waves and Oscillation, Optics and Thermal Physics)	3.00	3.00
PHY 112	Phy I Laboratory	3.00	1.50
MATH 111	Differential and Integral Calculus	4.00	4.00
CE 152	Engineering Drawing	3.00	1.50
CHEM 101	Chem I	3.00	3.00
CHEM 114	Inorganic and Quantitative Analysis Laboratory	3.00	1.50
HUM 127	Sociology	3.00	3.00
<b>Total</b>		<b>25.00</b>	<b>20.50</b>

**Level -1, Term-II**

Course Code	Course Name	Contact Hour	Credit Hour
EECE 105	Electrical Circuits II	3.00	3.00
EECE 106	Electrical Circuits Laboratory	3.00	1.50
EECE 110	Electrical Circuits Simulation Laboratory	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
CSE 109	Computer Programming	3.00	3.00
CSE 110	Computer Programming Laboratory	3.00	1.50
<b>Total</b>		<b>25.00</b>	<b>19.00</b>

**Level -2, Term-I**

Ser	Course Code	Course Name	Contact Hour	Credit Hour
1	EECE 201	Electronics I	3.00	
2	EECE 203	Electrical Machines I	3.00	
3	ME 263	Fundamentals of Mechanical Engineering	3.00	
4	ME 264	Fundamentals of Mechanical Engineering Laboratory	3.00	
5	Math 211	Math (Ordinary and Practical Differential equation) (3)	3.00	
6	Hum 235	English	3.00	
7	Hum 272	Developing English Skills Laboratory	3.00	
8	Hum 277	Fundamentals of Economics	3.00	
<b>Total</b>			<b>24.00</b>	<b>2</b>

**Level -2, Term-II**

Ser	Course Code	Course Name	Contact Hour	Credit Hour
1.	EECE 205	Electrical Machines II	3.00	
2.	EECE 206	Electrical Machines laboratory	3.00	
3.	EECE 207	Electronics II	3.00	
4.	EECE 208	Electronics Laboratory	3.00	
5.	EECE 210	Electronic Circuit Simulation Laboratory	3.00	
6.	EECE 212	Numerical Technique Laboratory	3.00	
7.	Math 213	Math (Complex Variable & Statistics) (4)	4.00	
8.	Hum 279	Financial and Managerial Accounting	3.00	
<b>Total</b>			<b>25.00</b>	<b>1</b>

**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
<b>Total</b>		<b>24</b>	<b>19.50</b>

**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	1.50
EECE 311	Digital Signal Processing I	3	3
EECE 312	Digital Signal Processing I Laboratory	3	1.50
EECE 315	VLSI-1	3	3
EECE 316	VLSI-1 Lab	3	1.50
EECE 317	Engineering Electromagnets	3	3
EECE 320 #	Industrial Training/attachment	3/4 weeks	-
<b>Total</b>		<b>24</b>	<b>19.50</b>

EECE 320 (Industrial Training/attachment) will be conducted as non-course at any convenient time after the term end exam of term-

**Level-4 Term-I**

Ser	Course Code	Course Name	Contact Hour	Credit Hour
1.	EECE 400	Project/ Thesis	6	3
2.	EECE 401	Control System I	3	3
3.	EECE 402	Control System I Laboratory	3	1.5
4.	EECE 403	Telecommunication Engineering	3	3
5.	EECE 405	Solid State Devices	3	3
6.	EECE 4 **	Elective I	3	3
7.	EECE 4 **	Elective II	3	3
8.	EECE 4 **	Elective II Lab	3	1.5
<b>Total</b>			<b>27</b>	<b>24</b>

**Level-4 Term-II**

Ser	Course Code	Course Name	Contact Hour	Credit Hour
1	EECE 400	Project/Thesis	6	3
2	EECE 407	Microprocessors and Interfacing	3	3
3	EECE 408	Microprocessor and Interfacing Laboratory	3	1.5
4	EECE 4 **	Elective III	3	3
5	EECE 4 **	Elective IV	3	3
6	EECE 4 **	Elective V	3	3
7	EECE 4 **	Elective V Laboratory	3	1.5
<b>Total</b>			<b>24</b>	<b>19.50</b>

**Note :** Students will be assigned one of the three groups viz p electronics and communications. A student will have to take at le elective theory courses from the respective group. The remaini elective theory courses may be selected from the respective gro other groups or interdisciplinary group or combination of these gro

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Course Code	Course Name	Credit Hour
EECE 471	Power System II	3
EECE 437	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

Ser	Course Code	Course Name	Cr H
1	EECE 421	Control System II	
2	EECE 422	Control System II Laboratory	
3	EECE 423	Numerical Methods	
4	EECE 424	Numerical Methods Laboratory	
5	EECE 425	Biomedical Instrumentation	
6	EECE 426	Biomedical Instrumentation Laboratory	
7	EECE 427	Radar Engineering	
8	EECE 428	Radar Engineering Laboratory	
9	EECE 491	Sonar and Underwater Engineering	
10	EECE 492	Sonar and Underwater Engineering Laboratory	
11	EECE 293	Electronic Warfare	
12	EECE 494	Electronic Warfare Laboratory	
13	EECE 495	Avionics Engineering	
14	EECE 496	Avionics Engineering laboratory	
15	CSE 451	Computer Networks	
16	CSE 452	Computer Networks Laboratory	
17	CSE 491	Microprocessor System Design	
18	CSE 492	Microprocessor System Design Laboratory	

# **MECHANICAL ENGINEERING DEGREE (ME)**

**Total Credit Hours: 162.00**

## **LEVEL-1 TERM-I**

Course Code	Course Name	Type of Course	Contact hours	Credit Hours
ME 105	Structure of Matter, Electricity and Magnetism and Modern Physics	Theory	3	3.00
ME 101	Chemistry-1	Theory	3	3.00
ME 161	Differential and Integral Calculus	Theory	4	4.00
ME 161	Introduction to Mechanical Engineering	Theory	3	3.00
ME 159	Fundamentals of Electrical Engineering	Theory	3	3.00
			16	16.00
ME 114	Inorganic Quantitative Analysis Sessional	Sessional	3	1.50
ME 160	Fundamental of Electrical Engineering Sessional	Sessional	3/2	0.75
ME 160	Foundry and Welding Shop Sessional	Sessional	3/2	0.75
ME 160	Mechanical Engineering Drawing-1	Sessional	3	1.50
			9	4.50
<b>Contact hours: 25.0; Credit hours: 20.50</b>				

## **LEVEL-1 TERM-II**

Course Code	Course Name	Type of Course	Contact hours	Credit Hours
ME 107	Waves and Oscillation, Geometrical Optics and Wave Mechanics	Theory	3	3.00
ME 141	Chemistry of Engineering Materials	Theory	3	3.00
ME 163	Vector analysis, Matrices and Geometry	Theory	4	4.00
ME 171	Computer Programming Language	Theory	3	3.00
ME 101	English	Theory	2	2.00
			15	15.00
ME 102	Technical Report Writing and Presentation	Sessional	3	1.50
ME 102	Physics Sessional	Sessional	3	1.50
ME 172	Computer Programming Language Sessional	Sessional	3/2	0.75
ME 170	Machine Shop Practice	Sessional	3/2	0.75
			9.0	4.50
<b>Contact hours: 24.0; Credit hours: 19.50</b>				

## **LEVEL -2, TERM - I**

Course Code	Course Name	Type of course	Contact hours	Credit Hours
ME 241	Engineering Mechanics	Theory	4	4.00
EECE 259	Electrical and Electronics Technology	Theory	4	4.00
Math 261	Ordinary and partial Differential Equation	Theory	4	4.00
ME 201	Basic Thermodynamics	Theory	4	4.00
Hum <sup>1</sup>	Select from the prescribed courses	Theory	3	3.00
			19	19.00
EECE 260	Electrical and Electronics Technology Sessional	Sessional	3	3.00
ME 202	Basic Thermodynamics Sessional	Sessional	3/2	0.75
			4.5	4.50
<b>Contact hours : 23.5; Credit hours : 21.25</b>				

## **LEVEL-2, TERM -II**

Course Code	Course Name	Type of course	Contact hours	Credit Hours
ME 291	Metallic Materials	Theory	3	3.00
ME 261	Numerical Analysis	Theory	3	3.00
ME 243	Mechanics of Solids	Theory	3	3.00
Math 263	Fourier Analysis, Harmonic functions, Laplace Transform and Complex variable	Theory	4	4.00
Hum <sup>1</sup>	Select from the prescribed courses	Theory	3	3.00
			16	16.00
ME 292	Metallic Materials Sessional	Sessional	3/2	0.75
ME 262	Numerical Analysis Sessional	Sessional	3/2	0.75
ME 244	Mechanics of solids Sessional	Sessional	3/2	0.75
ME 260	Mechanical Engineering Drawing -II	Sessional	3	3.00
			7.5	7.50
<b>Contact hours: 23.5; Credits hours: 19.75</b>				

### LEVEL – 3, TERM – I

Course Code	Course Name	Type of course	Contact hours	Credit hours
ME 341	Machine Design – I	Theory	3	3.00
ME 321	Fluid Mechanics – I	Theory	3	3.00
ME 345	Mechanics of Machinery	Theory	4	4.00
ME 301	Conduction and Radiation Heat Transfer	Theory	3	3.00
ME 361	Instrumentation and Measurement	Theory	3	3.00
			16	16.00
ME 342	Machine Design Sessional – I	Sessional	3/2	0.75
ME 322	Fluid Mechanics Sessional – I	Sessional	3/2	0.75
ME 346	Mechanics of Machinery Sessional	Sessional	3	1.50
ME 302	Heat Transfer Sessional	Sessional	3/2	0.75
ME 362	Instrumentation and Measurement Sessional	Sessional	3/2	0.75
			9	4.50
<b>Contact hours: 25.00; Credit hours: 20.50</b>				

### LEVEL – 3, TERM – II

Course Code	Course Name	Type of course	Contact hours	Credit hours
ME 331	Production Processes	Theory	4	4.00
ME 323	Fluid Mechanics – II	Theory	3	3.00
ME 343	Machine Design – II	Theory	3	3.00
ME 381	Measurement and Quality Control	Theory	3	3.00
ME 303	Convection, Boiling, Condensation and Mass Transfer	Theory	3	3.00
			16	16.00
ME 332	Production Process Sessional	Sessional	3/2	0.75
ME 324	Fluid Mechanics Sessional – II	Sessional	3/2	0.75
ME 344	Machine Design Sessional – II	Sessional	3/2	0.75
ME 382	Measurement and Quality Control Sessional	Sessional	3/2	0.75
ME 304	Heat and Mass Transfer Sessional	Sessional	3/2	0.75
ME 372 *	Industrial Training	Training	4 weeks	0.75
			7.5 + 4 weeks	4.50
<b>Contact hours : 23.50 + 04 Weeks ; Credit hours : 20.50</b>				

\*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	Type of course	Contact hours	Credit hours
ME 421	Fluid Machinery	Theory	3	3.00
ME 431	Machine Tools	Theory	3	3.00
ME 401	Internal Combustion Engines	Theory	3	3.00
Optional I <sup>2</sup>	Selected from prescribed optional subjects	Theory	3	3.00
Optional II <sup>2</sup>	Selected from prescribed optional subjects	Theory	3	3.00
			15	15.00
ME 422	Fluid Machinery Sessional	Sessional	3/2	0.75
ME 432	Machine Tools Sessional	Sessional	3/2	0.75
ME 402	Heat Engines Sessional	Sessional	3/2	0.75
ME 400	Project and Thesis – I	Sessional	6	6.00
			10.5	10.50
<b>Contact hours: 25.50; Credit hours: 20.25</b>				

### LEVEL – 4, TERM – II

Course Code	Course Name	Type of course	Contact hours	Credit hours
ME 403	Power Plant Engineering	Theory	3	3.00
Optional III <sup>2</sup>	Selected from prescribed optional subjects	Theory	3	3.00
Optional IV <sup>2</sup>	Selected from prescribed optional subjects	Theory	3	3.00
Optional V <sup>2</sup>	Selected from prescribed optional subjects	Theory	3	3.00
ME 481	Industrial Management	Theory	4	4.00
			16	16.00
ME 404	Steam Laboratories Sessional	Sessional	3/2	0.75
ME 400	Project and thesis – II	Sessional	6	6.00
			7.5	7.50
<b>Contact hours: 23.50; Credit hours: 19.75</b>				

**LEVEL 1, TERM-II (Aerospace & Avionics)**

- 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.

Course Code	Course Name	Type of Course	Contact hours
Phy 117	Phy II (Electricity and Magnetism, Modern Physics and Mechanics)	Theory	3
Chem 105	Chemistry (Atomic Structure, Thermo-chemistry and Chemistry of Engineering Materials)	Theory	4
Math 125	Math III (Ordinary and Partial Differential Equations and Laplace Transforms)	Theory	3
AEAV 103	Computer Programming and Applications	Theory	3
Hum 111	English	Theory	3
Hum 112	Technical Report Writing and Presentation	Sessional	3
Chem 106	Chemistry Sessional	Sessional	3
AEAV 104	Computer Programming and Applications Sessional	Sessional	3
Shop 112	Workshop Technology Sessional -II	Sessional	3/2
<b>Total = Contact hours: 26.5; Credits: 21.25</b>			

**AERONAUTICAL ENGINEERING DEGREE (AE)**

**Total Credit Hours: 160.75**

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

Course Code	Course Name	Type of Course	Contact hours	Credit hours
115	Physics I (Waves and Oscillation, Optics and Thermal Physics)	Theory	3	3.00
AV 101	Electrical Circuit Analysis-I	Theory	3	3.00
121	Math I (Differential and Integral Calculus)	Theory	3	3.00
123	Math II (Complex Variables and Vector Analysis)	Theory	3	3.00
AS 101	Introduction to Aeronautical Engineering	Theory	3	3.00
116	Physics Sessional	Sessional	3	1.50
AV 102	Electrical Circuit Analysis-I Sessional	Sessional	3	1.50
AS 110	Aeronautical Engineering Drawing-1	Sessional	3	1.50
110	Workshop Technology Sessional -I	Sessional	3/2	0.75
<b>Total = Contact hours: 25.5; Credits: 20.25</b>				

**LEVEL 2, TERM-I (Aerospace)**

Course Code	Course Name	Type of course	Contact hours
AEAS-201	Engineering Mechanics (Statics and Dynamics)	Theory	4
AEAV-205	Numerical Analysis and Application	Theory	3
AEAV 211	Fundamentals of Electronics	Theory	4
Math-221	Math IV (Matrices, Coordinate Geometry and Harmonic Analysis )	Theory	3
HUM XXX	Select from prescribed courses	Theory	3
AEAV-206	Numerical Analysis and Application Sessional	Sessional	3
AEAV-212	Fundamentals of Electronics Sessional	Sessional	1.50
<b>Total = Contact hours: 21.50; Credits: 19.25</b>			

**LEVEL 2, TERM-I (Avionics)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
V 201	Electrical Circuit Analysis-II	Theory	3	3.00
S 201	Engineering Mechanics (Statics and Dynamics)	Theory	4	4.00
V 203	Electronics – I	Theory	3	3.00
V 205	Numerical Analysis and Applications	Theory	3	3.00
221	Math IV (Matrices, Coordinate Geometry and Harmonic Functions )	Theory	3	3.00
XXX	Select form the prescribed courses (XXX)	Theory	3	3.00
V 202	Electrical Circuit Analysis-II Sessional	Sessional	1.5	0.75
V 206	Numerical Analysis and Applications Sessional	Sessional	3.0	1.5
<b>Total = Contact hours : 22.00; Credit hours : 21.25</b>				

**LEVEL 2, TERM-II (Aerospace)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
S-203	Fundamentals of Fluid Mechanics	Theory	3	3.00
S-205	Mechanics of Solids	Theory	3	3.00
S-207	Thermodynamics	Theory	3	3.00
-225	Math V (Fourier Analysis and Statistics)	Theory	3	3.00
YYY	Select from prescribed courses	Theory	3	3.00
S-206	Mechanics of Solids Sessional	Sessional	3.00	1.50
S-208	Thermodynamics Sessional	Sessional	1.50	0.75
S-210	Aeronautical Engineering Drawing-II	Sessional	3.00	1.50
<b>Total = Contact hours: 22.50; Credits: 18.75</b>				

**LEVEL 2, TERM-II (Avionics)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
AEAS 203	Fundamentals of Fluid Mechanics	Theory	3	3.00
AEAV 207	Electronics – II	Theory	3	3.00
AEAV 209	Electro-mechanical System	Theory	3	3.00
AEAS 207	Thermodynamics	Theory	3	3.00
Math 225	Math V (Fourier Analysis and Statistics)	Theory	3	3.00
AEAV 208	Electronics– II Sessional	Sessional	3.0	1.50
AEAS 208	Thermodynamics Sessional	Sessional	1.5	0.75
AEAV 210	Electro-mechanical System Sessional	Sessional	1.5	0.75
AEAS 210	Aeronautical Engineering Drawing –II	Sessional	3.0	1.50
<b>Total = Contact hours : 24.00 ; Credits hours : 19.50</b>				

**LEVEL 3, TERM-I (Aerospace)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
AEAS-301	Heat Transfer	Theory	3	3.00
AEAS-303	Applied Aerodynamics and Computational Fluid Dynamics	Theory	4	4.00
AEAS-305	Aerospace Propulsion	Theory	4	4.00
AEAS-307	Aircraft Loading & Structure Analysis	Theory	3	3.00
AEAS-309	Material Science	Theory	3	3.00
AEAS-302	Heat Transfer Sessional	Sessional	1.5	0.75
AEAS-304	Experimental Aerodynamics Sessional	Sessional	1.5	0.75
AEAS-306	Aerospace Propulsion Sessional	Sessional	1.5	0.75
AEAS-310	Material Science Sessional	Sessional	3.0	1.50
<b>Total = Contact hours : 24.50 ; Credits : 20.75</b>				

**LEVEL – 3, TERM – I (Avionics)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
V 301	Digital Systems	Theory	3	3.00
V 303	Signals and Systems	Theory	3	3.00
V 305	Communication Engineering	Theory	3	3.00
S 303	Applied Aerodynamics	Theory	4	4.00
YYY	Select from the prescribed courses (YYY)	Theory	2	2.00
V 302	Digital Systems Sessional	Sessional	3.0	1.50
S	Experimental Aerodynamics Sessional	Sessional	1.5	0.75
V 306	Communication Engineering Sessional	Sessional	1.5	0.75
<b>Total = Contact hours : 22.5 ; Credits hours : 18.00</b>				

**LEVEL 3, TERM-II (Aerospace)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
S-311	Test and Measurement	Theory	3	3.00
S-313	High Speed Aerodynamics	Theory	3	3.00
S-315	Aerospace Vehicle Stability and Control	Theory	3	3.00
S-317	Mechanics of Structures, Structural Vibration and Aero Elasticity	Theory	4	4.00
S-319	Machine Design	Theory	3	3.00
00	Industrial Training	Sessional	4 Weeks	1.00
S-312	Test and Measurement Sessional	Sessional	1.5	0.75
S-320	Machine Design Sessional	Sessional	3.0	1.50
<b>Total = Contact hours : 20.50 ; Credits : 19.25</b>				

**LEVEL –3, TERM – II (Avionics)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
AEAV 307	Electro-Magnetic Field Theory	Theory	3	3.00
AEAS 309	Test and Measurement	Theory	3	3.00
AEAV 311	Aero-measurement and Instrumentation	Theory	3	3.00
AEAV 313	Digital Signal Processing	Theory	3	3.00
AEAV 315	Guidance, Navigation and Control	Theory	3	3.00
AE 300	Industrial Training	Sessional	4 weeks	1.00
AEAS 310	Test and Measurement Sessional	Sessional	1.5	0.75
AEAV 312	Aero-measurement and Instrumentation Sessional	Sessional	3.0	1.50
AEAV 314	Digital Signal Processing Sessional	Sessional	3.0	1.50
<b>Total = Contact hours : 22.5 ; Credit hours : 19.75</b>				

**LEVEL 4, TERM-I (Aerospace)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
AEAS-401	Computational Structural Analysis	Theory	3	3.00
AEAS-403	Product Design and Development & Operation Management	Theory	4	4.00
AEAS-405	Aerospace Vehicle Design	Theory	3	3.00
AEAV-427	Control System	Theory	3	3.00
AEAS-XXX(1)	Select from prescribed optional courses	Theory	3	3.00
AEAV-400	Project and Thesis	Sessional	6.0	6.00
AEAS-406	Aerospace Vehicle Design Sessional	Sessional	1.50	0.75
AEAV-416	Wind Tunnel Testing Sessional	Sessional	1.50	0.75
<b>Total = Contact hours : 25.00 ; Credits : 20.50</b>				

**LEVEL – 4, TERM – I (Avionics)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
V 401	Microwave Engineering	Theory	3	3.00
V 403	Feedback Control System	Theory	3	3.00
S 405	Production, Planning and Control	Theory	3	3.00
S 413	Advanced Aerospace Technology	Theory	3	3.00
V XXX	Selected from prescribed optional courses	Theory	3	3.00
V 400	Project and Thesis – 1	Sessional	6.0	3.00
V 402	Microwave Engineering Sessional	Sessional	3.0	1.50
V 404	Feedback Control System Sessional	Sessional	1.5	0.75
S 414	Advanced Aerospace Technology Sessional	Sessional	1.5	0.75
<b>Total = Contact hours : 27.0; Credit hours : 21.00</b>				

**LEVEL 4, TERM-II (Aerospace)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
S-407	Turbo Machinery	Theory	3	3.00
S-409	Production, Planning and Control	Theory	3	3.00
S-413	Space Engineering	Theory	4	4.00
V-425	Advanced Avionics Technology	Theory	4	4.00
S-YYY	Select from prescribed optional courses	Theory	3	3.00
V-400	Project and Thesis Sessional	Sessional	6.0	3.00
V-426	Advanced Avionics Technology Sessional	Sessional	1.5	0.75
<b>Total = Contact hours : 24.50 ; Credits : 20.75</b>				

**LEVEL – 4, TERM – II (Avionics)**

Course Code	Course Name	Type of course	Contact hours	Credit hours
AEAV 405	Avionics Engineering	Theory	3	3.00
AEAV 407	Radar Engineering	Theory	3	3.00
AEAV 409	Microprocessor and Interfacing	Theory	3	3.00
AEAS 411	Product Design & Development and Operations Management	Theory	3	3.00
AEAV YYY	Select from prescribed optional courses	Theory	3	3.00
AEAV 400	Project and Thesis – II	Sessional	6.0	3.00
AEAV 408	Radar Engineering Sessional	Sessional	1.5	0.75
AEAV 410	Microprocessor and Interfacing Sessional	Sessional	1.5	0.75
AEAV XXX	Optional II Sessional	Sessional	3.0	3.00
<b>Total = Contact hours : 27 Credit hours : 20.25</b>				

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

Any two courses (6.00 credits) have to be taken by each student from the following list of courses.

Ser	Course Code	Course Name	Level-Term	Contact Hours	Credit hours
1.	AEAS 417	Air Field Procedure	4-I	3.0	3.00
2.	AEAS 419	Maintenance Management and Repair of Aircraft	4-I	3.0	3.00
3.	AEAS 421	Aviation Safety	4-I	3.0	3.00
4.	AEAS 423	Aerospace Management	4-I	3.0	3.00
5.	AEAS 425	Pressurization and Air Conditioning systems	4-II	3.0	3.00
6.	AEAS 427	Noise Control and Vibration	4-II	3.0	3.00
7.	AEAS 429	Rotorcraft Performance	4-II	3.0	3.00
8.	AEAS 431	Weapons Engineering	4-II	3.0	3.00
9.	AEAS 435	Aircraft Structural Design	4-II	3.0	3.00

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

Two courses (6.75 credits) have to be taken by each student from following list of courses.

Course Code	Course Name	Level-Term	Contact Hours	Credit Hours
AEAS 417	Air Field Procedure	4-I	3.0	3.00
AEAS 419	Maintenance Management and Repair of Aircraft	4-I	3.0	3.00
AEAS 421	Aviation Safety	4-I	3.0	3.00
AEAS 423	Aerospace Management	4-I	3.0	3.00
AEAV 413	Mobile Cellular Communication	4-I	3.0	3.00
AEAV 415	Satellite Communication	4-I	3.0	3.00
AEAV 417	Optoelectronics	4-I	3.0	3.00
AEAV 419	Electronics Warfare	4-I	3.0	3.00
AEAV 421	Optical Fiber Communication	4-II	3.0	3.00
AEAV 422	Optical Fiber Communication Sessional	4-II	3.0	0.75
AEAV 423	Digital Communication	4-II	3.0	3.00
AEAV 424	Digital Communication Sessional	4-II	3.0	0.75
AEAV 435	Computer Networks	4-II	3.0	3.00
AEAV 436	Computer Networks Sessional	4-II	3.0	0.75

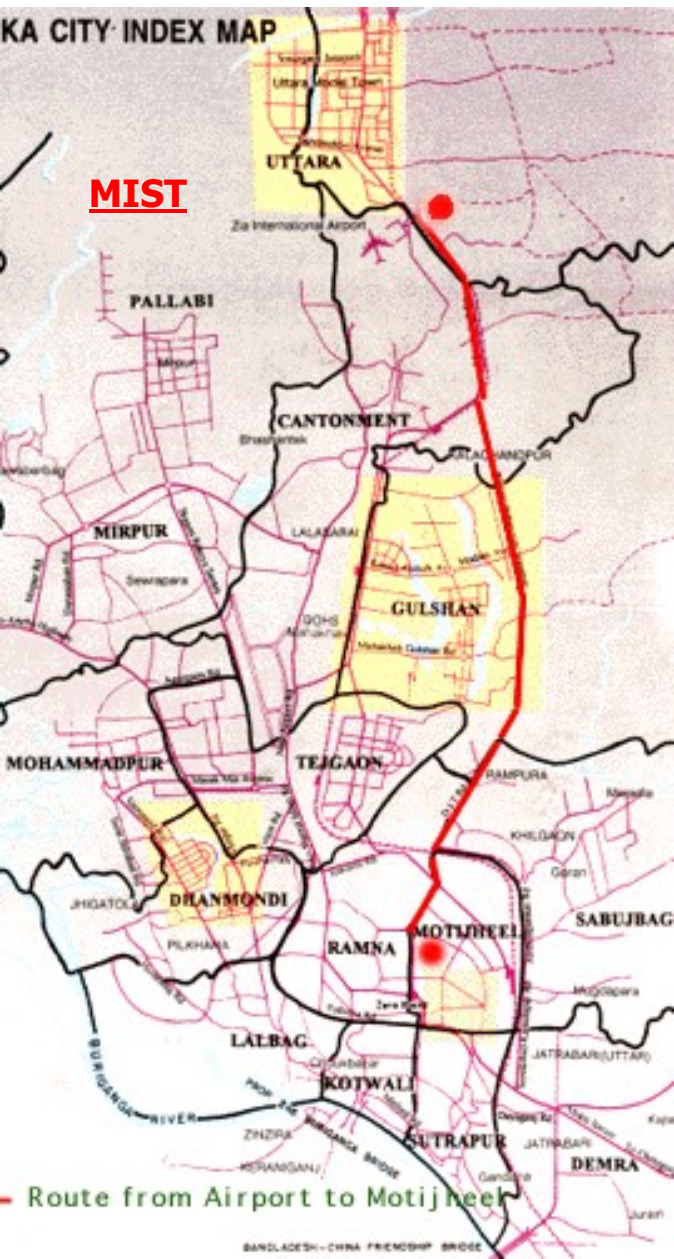
**IMPORTANT CONTACT NUMBERS**

- ☎ Director Academic (Dean): 8035178
- ☎ Director Admin: 9013166
- ☎ Colonel Staff: 9011414
- ☎ Director R & D: 9011362
- ☎ GSO-I (Academic): 8035421
- ☎ GSO-II (Academic): 9010049 EXT-415
- ☎ DAA&QMG: 9010049 EXT-268
- ☎ Admission Officer: 8035419
- ☎ Fax: 88-02-9011311

**of 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.

# MIST LOCATION MAP



# **MIST FACULTY TOWER**



**MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY (MIST)**

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