

CHOICE BASED CREDIT SYSTEM

Rules and Regulation

CURRICULUM

UNDER GRADUATE PROGRAMME

Bachelor of Engineering



GOVERNMENT COLLEGE OF ENGINEERING AURANGABAD

(An Autonomous Institute of Govt. of Maharashtra)
Station Road, Osmanpura, Aurangabad- 431005 (M.S.)
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RULES & REGULATIONS (General)

Common to all Degree Programs

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The General Regulations are for the students taking admission for the first year in engineering from year 2016-2017

1. INTRODUCTION:

- 1.0 The General Regulations that are common to all Degree Programs of GEC Aurangabad, are presented here. Specific aspects of the Regulations pertaining to a particular Degree Programme are given separately along with the corresponding Curriculum.
- 1.1 The provisions contained in this set of Regulations govern the policies and procedures, on the admission of students, imparting instructions of courses, conducting of the examinations and evaluation and certification of students' performance leading to the said Degree Program(s).
- 1.2 This set of Regulations, on approval by the Academic Council, shall be binding on all students undergoing the said Degree Program(s) under CBCS.
- 1.3 This set of Regulations may evolve and get revised/refined or updated or amended or modified or changed through appropriate approvals from the Academic Council, from time to time, and shall be binding on all parties concerned, including the Students, Faculty, Staff, Departments, Institute Authorities.
- 1.4 In order to *guarantee fairness and justice* to all the parties concerned, in view of the periodic evolutionary refinements, any specific issues or matters of concern shall be addressed to the Academic Council, as and when found necessary through appropriate authorities.
- 1.5 The Academic Council may consider any issues or matters of concern relating to any or all the Academic Activities of the Institute, for appropriate action, irrespective of whether a reference is made (or the nature and extent of any reference if so present) here in this set of Regulations or otherwise.
- 1.6 All disputes arising from this set of Regulations must be addressed to the Academic Council. The decision of the Academic Council is final and binding on all parties concerned. Further, any legal disputes arising from this set of Regulations shall be limited to the legal jurisdiction Aurangabad and not that of any other parties.

2. DEFINITIONS: Unless the context otherwise requires –

- **“Academic Council”** means, Academic Council of the Institute
- **“BOM”** means, the Board of Management (BOM) of the Institute
- **“BOS”** means, the Board of Studies of the department
- **“Course”** means, a specific *subject* usually identified by its *course-number* and *course-title*, with a specified *syllabus*/course -description, a set of *references*, taught by some *teacher(s)*/course-Co-ordinator(s) to a specific *class* (group of students) during a specific *academic-session/semester*

- **“Course coordinator”** means, the teacher who teaches and/or coordinates the various activities of a Course
- **“Curriculum”** includes the set of Academic Regulations, Course-Structure and Course-Contents
- **“CET”** means, Common Entrance Test conducted by competent Authority
- **“Institute”/“GEC”** means, Government College of Engineering, Aurangabad
- **“Dean (Acad)”** means, the Dean (Academic)
- **“Dean (SW)”** means, the Dean (Student Welfare)
- **Dean (R&D)”** means, the Dean (Research & Development)
- **“Faculty Advisor”** means the Faculty Advisor or the Panel of Faculty Advisors, in a Parent Department, for a group (admission-batch) of students
- **“GATE”** means, Graduate Aptitude Test in Engineering
- **“Principal”** means, the Head of the Institute.
- **“HOD”** means, the Head of the Department.
- **“Programme coordinator”** means, a faculty in charge of an academic programme,
- **“Parent Department”** means, the department that offers the degree programme that a student undergoes

3. ACADEMIC CALENDAR:

3.1 The normal duration of the course leading to B. E. degree will be *EIGHT* semesters.

3.2 Each academic year shall be divided into 2 semesters, each of minimum 90 working days duration (including Examinations).

3.3 The schedule of academic activities for a Semester, including the dates of registration, mid-semester examination, end-semester examination, reexamination, inter-semester vacation, etc. shall be referred to as the Academic Calendar of the Semester, which shall be prepared by the Dean (Academic), approved by the Academic Council, and announced at least *TWO* weeks before the Closing Date of the previous Semester.

3.4 The Academic Calendar must be adhered to, and all other activities including co-curricular and/or extra-curricular activities must be scheduled so as not to interfere with the Curricular Activities as stipulated in the Academic Calendar.

3.5 Under any circumstances when any of the Teaching Days gets declared as a Holiday or otherwise when the classes get suspended, irrespective of whatsoever be the reasons, appropriate makeup for such loss shall be made by Program Coordinator having the class/lab/teaching sessions conducted on a suitable day by following the particular Class Time Table of that Teaching Day which was so lost.

4. REGISTRATION:

- 4.1 Every Student after consulting his Faculty-Advisor is required to register for the approved courses of Parent Department at the commencement of each semester on the days fixed for such registration and notified in the academic calendar. Program coordinator will monitor and appoint Departmental Committees in order to properly facilitate course registration. All students must personally be present on these dates. Minimum twenty(20) students are required for starting the elective course of elective program. Maximum seventy(70) students can register of any elective course of First Year.
- 4.2 Lower and Upper Limits for Course Credits Registered in a Semester, by a Full-time Student of a Degree Programme:
A full time student of a particular degree programme shall register for the appropriate number of course credits in each semester/session, that is within the minimum and maximum limits specific to that degree programme as stipulated in the specific Regulations pertaining to that degree programme as prescribed in Annexure A.
- 4.3 Mandatory Pre-Registration for higher semesters:
In order to facilitate proper planning of the academic activities of a semester, it is essential for the student to *declare their intent to register* for an elective course well in advance, before the actual start of the academic session, through the process of Pre-Registration, which is mandatory for all students of second or higher semesters. The span of pre-registration shall be declared on website and academic calendar.
- 4.4 All students (other than the freshly admitted students) intending to register for the next higher semester are required to have completed the *Mandatory Pre-Registration* of elective courses, at least TWO weeks before the last day of instruction specified in the academic calendar of the current semester. To facilitate this Preregistration all teaching departments shall announce the list of courses to be offered for the next higher semester, at least FOUR weeks before the Last Day of instruction specified in the academic calendar of the current semester.
- 4.5 Under Graduate students may be permitted to register for a few selected Post Graduate courses, in exceptionally rare circumstances
- 4.6 *Course Pre-Requisites:*
In order for a student to register for some specific courses, it may be required either to have exposure/registered, or have completed satisfactorily, or have prior *earned credits* in prerequisite courses as prescribed by the respective board of studies.
- 4.7 Students who do not register on the day announced for the purpose may be permitted *LATE REGISTRATION* up to the notified day in academic calendar on payment of late fee.

- 4.8 *REGISTRATION IN ABSENTIA* will be allowed only in exceptional cases through the authorized representatives of the student with the approval of committee formed by Principal and program coordinators.
- 4.9 A student will be permitted to register in the next semester only if he/she fulfills the following conditions:
- (a) satisfies all the Academic Requirements to continue with the programme of Studies
 - (b) cleared all Institute, Hostel and Library dues and fines (if any) of the previous semesters;
 - (c) Paid all required advance payments of the Institute and hostel for the current semester;
 - (d) Not been debarred from registering on any specific ground by the Institute.

5. Credit & Evaluation system

The Grading System

- 5.1 The grading system for Undergraduate Programs as recommended by Dean (Academics) UG Programs and approved by Academic council shall be followed for declaration of results. For every course taken by a student, he/she is assigned a grade based on his/her combined performance in all the heads of assessments. The grade indicates a qualitative assessment of the student's performance and is associated with equivalent number called a grade point. The course coordinator shall provide term work/practical/oral/ viva-voce or any other heads of assessment at course coordinator level in the form of relative grades based on internal and/or external assessment as applicable amongst the appearing students.
- 5.2 The academic performance shall be graded on a ten grade point scale following guidelines given below for undergraduate classes.
- 5.2.1 The letter Grades (up to D only) awarded to a student in all the courses shall be converted into a semester and cumulative performance index called the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).

5.3 RELATIVE GRADE SYSTEM FOR UG PROGRAM

Award of Grades-

- 5.3.1 Grade A++ absolute grade to be awarded to 10 % or less number of students securing more than 80 % marks.
- 5.3.2 In the case of students appearing for Re-examination the grade shall not be higher than A+ in that particular course.

- 5.3.3 Grade D absolute grade to be awarded to student who fail to pass the subject securing less than 40 % marks or student remaining **ABSENT** in a course of End Semester Examination/ Re-Examination.
- 5.3.4 The intermediate grade shall be divided on equal scale between student securing A++ and C grade.
- 5.3.5 There shall be letter grades with associated grade points as given below:

| Relative Range of Marks | Grade | Grade Point |
|-------------------------|-------|-------------|
| $M \geq k_1$ | A++ | 10.0 |
| $k_1 > M \geq k_2$ | A+ | 9.0 |
| $k_2 > M \geq k_3$ | A | 8.0 |
| $k_3 > M \geq k_4$ | B+ | 7.0 |
| $k_4 > M \geq k_5$ | B | 6.0 |
| $k_5 > M \geq k_6$ | C+ | 5.0 |
| $k_6 > M \geq k_7$ | C | 4.0 |
| $M < k_7$ | D | 0 |
| Detained | D1 | 0 |
| Drop | D2 | 0 |
| Withdrawn | D3 | 0 |

Where,

M- marks obtained out of 100,

k_1 = Minimum marks of (A++-1) or maximum marks secured if no student is awarded A++

$k_7=40$; $C = \text{abs}(k_1 - k_7) / 6$; $k_2 = (k_1 - C)$; $k_3 = k_2 - C$; $k_4 = k_3 - C$; $k_5 = k_4 - C$; $k_6 = k_5 - C$

- 5.3.6 The SGPA and CGPA shall be calculated as per the procedure followed based on credits. The equivalent percentage from CGPA shall be calculated as $(CGPA) \times 10$.
- 5.3.7 Class is awarded on the basis of CGPA
- First Division with Distinction = $CGPA \geq 7.00$
- First Division = $7.00 > CGPA \geq 6.00$
- Second Division = $6.00 > CGPA \geq 5.00$
- Pass Class = $CGPA < 5.00$

Note: Refer Academic Evaluation and Functioning document given by the Controller of Examinations.

6. ADD / DROP

6.1 ADD-option:

A student has the option to ADD courses for registration till the date specified for late registration in the Academic Calendar.

6.2 DROP-option:

On recommendation of the Teaching Department as well as the Parent Department, a student has the option to DROP courses from registration *until 2 weeks after the commencement of the classes in the semester*, as indicated in the Academic Calendar.

7. ATTENDANCE REQUIREMENTS:

- 7.1 All students must attend every lecture, tutorial and practical classes.
- 7.2 To account for approved leave of absence (eg. representing the Institute in sports, games or athletics; placement activities; NCC/NSS activities; etc.) and/or any other such contingencies like medical emergencies, etc., the attendance requirement shall be a *minimum of 75%* of the classes actually conducted.
- 7.3 A student with less than 75% attendance in a course during a semester, in lectures, tutorials and practical taken together as applicable, will not be permitted to appear in the End Semester Examinations of the course in which the shortfall exists, irrespective of his academic performance, and irrespective of nature of his absence. The student will have to reregister in the same course as and when offered in the institute or he/she may have a choice to register in an equivalent course as approved by the respective board of studies.
- 7.4 The course Co-ordinator shall communicate periodically the attendance of the concerned students and shall publish list of provisionally detained student with the reason thereof atleast one week before the last day of instruction in the current semester.
- 7.5 Students who do not satisfy the criteria for final grant of term shall be finally detained by the course coordinator on the last day of instruction and shall be communicated in writing to the concerned students, program coordinator and controller of examination
- 7.6 The attendance records are to be maintained by the course Co-ordinator and he/she shall show it to the student, if and when required and to be published on website.

8. ABSENCE DURING THE SEMESTER:

8.1 *Leave of Absence:*

- (a) The leave of absence for the student for valid and genuine reasons shall be required to be approved by faculty advisor and the programme coordinator at appropriate time with supporting documents.
- (b) The faculty advisor / program coordinator may on receipt of such request in writing shall grant leave under genuine circumstances or shall reject if found not satisfactory.

8.2 *Absence during Mid-Semester Examination:*

All Class tests are mandatory. Absence in the class test will lead to loss of those marks.

9. TRANSFER OF CREDITS

The courses for which credit obtained elsewhere, in Indian or foreign University/Institutions/ Colleges by students during their study period at GEC may count towards the credit requirements for the award of degree. The credits transferred will reduce the number of courses to be registered by the student at GEC. The guidelines for such transfer of credits are as follows:

- a) Undergraduate students can register courses approved by the concerned programme coordinator, in recognized Institutions of national importance, IITs, NITs, universities, research organization, TEQIP assisted autonomous institutes or credit courses conducted under GIAN.
- b) Courses which are not covered in (a) may be considered with approval of academic council.
- c) Students can earn external credits from IISC/IITs/NITs/IIMs and other Indian or foreign Universities/Institutes /Colleges with which GEC has prior approval of transfer of credits by students.
- d) A student must provide all details including the approval or acceptance letter from the other side. These details will be evaluated by the concerned departmental academic bodies (BoS) before giving approval. These academic bodies will then decide the number of equivalent credits the student will get for such course(s) in GEC.
- e) The maximum number of credits that can be transferred by a student shall be normally limited to 16.
- f) A students has to get minimum passing grades/ marks for such courses for which the credits transfer are to be made.
- g) Credits transfers availed by a student shall be properly recorded on academic record(s) of the student.

10. WITHDRAWAL FROM THE PROGRAMME:

10.1 *Temporary Withdrawal:*

- (a) A student who has been admitted to a degree programme of the Institute may be permitted to withdraw temporarily, for a period of one semester or more, on the grounds of prolonged illness or grave calamity in the family, etc., provided:
 - (i) He applies to the Institute stating fully the reasons for withdrawal together with supporting documents and endorsement from his parent/guardian;
 - (ii) The Institute is satisfied that, without counting the period of withdrawal, the student is likely to complete his requirements of the degree within the time specified;
 - (iii) There are no outstanding dues with the Departments / Institute / Hostels / Library / etc.;
 - (iv) Scholarship holders are bound by the appropriate Rules applicable to them.
 - (v) The decision of the Principal of the Institute regarding withdrawal of a student is final and binding.
- (b) Normally, a student will be permitted only one such temporary withdrawal during his tenure as a student and this withdrawal will not be counted for computing the duration of study.

10.2 *Permanent Withdrawal:*

Any student who withdraws admission before the closing date of admission for the Academic Session is eligible for the refund of the all the fees and deposits, after a deduction of a processing fee. For the first year admitted student's permanent withdrawal is defined as per the norms of admission by Government of Maharashtra. Once the admission for the year is closed, the following conditions govern withdrawal of admissions:

- (a) A student who wants to leave the Institute, will be permitted to do so (and take Transfer Certificate from the Institute, if needed), only after clearing all the dues, if any. Also, all the fees and charges already paid will not be refunded on any account.
- (b) Those Students who have received any scholarship, stipend or other forms of assistance from the Institute shall repay all such.
- (c) The decision of the Principal of the Institute regarding all aspects of withdrawal of a student shall be final and binding.

11. CONDUCT AND DISCIPLINE:

- 11.1 Students shall conduct themselves within and outside the premises of the Institute in a manner befitting the students of a reputed Institution.

11.2 As per the order of Honorable Supreme Court of India, ragging in any form is considered as a criminal offence and is banned. Any form of ragging will be severely dealt with.

11.3 The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:

- (a) Ragging.
- (b) Lack of courtesy and decorum; indecent behavior anywhere within or outside the campus.
- (c) Willful damage or stealthy removal of any property/belongings of the Institute/Hostel or of fellow students/citizens.
- (d) Possession, consumption or distribution of alcoholic drinks or any kind of narcotics or hallucinogenic drugs.
- (e) Mutilation or unauthorized possession of library books.
- (f) Noisy and unseemly behavior, disturbing studies of fellow students.
- (g) Hacking in computer systems (such as entering into other person's area without prior permission, manipulation and /or damage of computer hardware and software or any other cyber crime etc.)
- (h) Plagiarism of any nature.
- (i) Any other act of gross indiscipline as decided by the Academic Council from time to time.

Commensurate with the gravity of offense, the punishment may be: reprimand, fine, expulsion from the hostel, debarring from an examination, disallowing the use of certain facilities of the Institute, rustication for a specified period or even outright expulsion from the Institute, or even handing over the case to appropriate law enforcement authorities or the judiciary, as required by the circumstances.

11.4 For an offence committed in (i) a hostel (ii) a department or in a class room and (iii) elsewhere, the Chief Warden, the Head of the Department and the Dean (Students Welfare), respectively, shall have the authority to reprimand or impose fine.

11.5 Cases of adoption of unfair means and/or any malpractice in an examination shall be reported to the Controller of Examination for taking appropriate action.

11.6 All cases of serious offence, possibly requiring punishment other than reprimand, shall be reported to the Principal.

11.7 The Institute Level Standing Disciplinary Action Committee constituted by the Principal, shall be the authority to investigate the details of the offence, and recommend disciplinary action based on the nature and extent of the offence committed.

12. GRADUATION REQUIREMENTS AND CONVOCATION:

12.1 A student shall be declared to be eligible for the award of the degree if he/she has:

- (a) Fulfilled Degree Requirements
- (b) No dues to the Institute, Departments, Hostels, Library, No disciplinary action pending against him/her.

12.2 **Convocation:**

It is suggested that Provisional Degree/Degree will be awarded in person for the students who have graduated during the preceding academic year. Provisional Degree will be awarded in absentia to such students who are unable to attend the Convocation. Students are required to apply for the Convocation along with the prescribed fee, after having satisfactorily completed all the degree requirements within the specified date in order to arrange for the award of the degree during convocation.

13. COMMITTEES / FUNCTIONARIES:

The following committees shall be constituted common for the various degree Programs:

13.1 **Departmental Academic Appeals Board (DAAB):**

Constitution:

- (a) Program Coordinator of the teaching/parent Deptt. ----- Chairman
- (b) Three faculty members ... Members
- (c) One faculty from outside the Department
nominated by Principal ... Member
- (d) Faculty Advisor(s) of the Class from where the
Appeal originates ... Member(s)

Note:

- There shall be one DAAB for every department.
- The Chairman may co-opt and/or invite more members.
- Depending on the prevailing circumstances, a Senior faculty of the Department, nominated by the Principal, shall act as Chair person instead of Head of the Department.
- If the concerned Co-ordinator is a member of DAAB then he/she shall keep himself out of the Board during deliberations.

Functions:

- i. To receive grievance/ complaints in writing from the students regarding anomaly in award of grades due to bias, victimization, erratic evaluation, etc. and redress the complaints.

- ii. To interact with the concerned course Co-ordinator and the student separately before taking the decision.
- iii. The decision of the DAAB will be based on simple majority.
- iv. The recommendations of the DAAB shall be communicated to the Dean (Academic) and Principal for further appropriate action if required.

13.2 Class/Course Committee:

Every Class (group of students registered for a course) of the Degree Programme shall have a Class/Course Committee, consisting of Faculty and Students.

Constitution:

- (a) One Faculty of the Teaching Department, ... Chairman
not associated with the class; nominated by the
Program Coordinator.
- (b) Faculty Advisor(s) for the Class ... Member-
Secretary
- (c) Course Co-ordinator(s) ... Member(s)
- (d) *FOUR* to *SIX* students from the
Class/Course ... Members
to be chosen by the students amongst
themselves

Functions:

- i. The basic responsibilities of the Class/Course Committees are to review periodically the progress of the classes, to discuss problems concerning curriculum and syllabi and the conduct of the classes.
- ii. Each class/course committee will communicate its recommendations to the Program Coordinator.
- iii. There shall be minimum one class committee meeting at the middle of every semester as indicated in the academic calendar. However additional class committee meetings may be convened as decided by Course Co-ordinator.
- iv. During beginning of the semester, the Course Co-ordinators shall present the method of evaluation and distribution of weightages for the various components.
- v. The minutes of each class/course committee meeting shall be recorded in a separate minutes register maintained in the Parent/Teaching Department.

13.3 Faculty Advisor(s):

The Faculty Advisor(s) will be appointed by the Program Coordinator of the parent department, who will be assigned a specific group (admission-batch) of students of the concerned parent department, and will be valid throughout their duration of study.

Functions:

- i. To help the students in planning their courses and related activities during their study period.
- ii. To monitor, guide, advise and counsel the students on *all* academic matters.
- iii. To coordinate the activities regarding mandatory learning courses.

13.4 Course Co-ordinator:

Functions (Highlights):

- i. He/She shall follow all the Regulations related to teaching of a course and evaluation of students.
- ii. He/She shall be responsible for all the records of the students registered for the course.
- iii. He/She shall conduct classes as prescribed in the Academic Calendar and as per the time table issued by the department.
- iv. He/She will arrange to distribute a course plan and the evaluation plan together with the course objectives, background materials to all the students within the first week of each semester.
- v. He/She will prepare an evaluation plan showing details of how the student's performance will be evaluated in the course.
- vi. He/She will properly document the students' performance and announce to the students (including on the notice board) as stipulated in the Regulations.
- vii. He/She will report to the Program Coordinator on a periodic (*monthly*) basis, the potential cases of very poor academic performance as well as those of low attendance

ANNEXURE-A

REGULATIONS
SPECIFIC TO
UNDER GRADUATE PROGRAMS
B.E.

CONTENTS

1. Degree Programs
2. Admission
3. Course Structure
4. Degree Requirements
5. Reregistration
6. Termination from the Programme
7. Change of Branch
8. Committees / Functionaries

REGULATIONS specific to B.E. Degree Programme

1. DEGREE PROGRAMS:

1.1 Under Graduate B.E. Degree Programs are offered in the following disciplines by the respective programme hosting departments listed below:

- i. Civil Engineering (CE)
- ii. Computer Science & Engineering (CSE)
- iii. Electrical and Electronics Engineering (EE)
- iv. Electronics and Telecommunication Engineering (ECT)
- v. Information Technology (IT)
- vi. Mechanical Engineering (ME)

Other teaching departments are:

- vii. Applied Mechanics (AM)
- viii. Mathematics (MA)
- viii. Physics, Chemistry, Biology (BS) and Humanities and Social Sciences (HS)

1.2 The provisions of these Regulations shall be applicable to any new disciplines that may be introduced from time to time and appended to the above list.

2. ADMISSION:

2.1 Admission to GEC, Aurangabad will be made in accordance with the instructions and guidelines received from GOVERNMENT OF MAHARASHTRA from time to time. Seats are reserved for candidates belonging to Scheduled Castes and Scheduled Tribes, Other Backward Classes (OBC), Physically challenged candidates, children of defence personnel and other categories as per the guidelines issued by GOVERNMENT OF MAHARASHTRA

2.3 Student Exchange Programs and the Transfer of Credits, shall be as per the corresponding MOU approved by Competent Authority.

2.4 The Institute reserves the right to cancel the admissions of any student and ask him to discontinue his studies at any stage of his career on the grounds of unsatisfactory academic performance or indiscipline or any misconduct.

2.5 The decision of the Academic Council regarding the admissions is final and binding.

2.6 Every Under Graduate student of the Institute shall be associated with Degree Awarding Department offering the degree programme that the student undergoes, *throughout* his study period, right from the very first day of admission into the program.

3. COURSE STRUCTURE:

3.1 The total course package for a B.E. Degree Programme will typically consists of the following components.

Typical Curriculum Structure for Degree Programs (As per AICTE Nomenclature)

| S.No. | Course Work - Subject Area | Range of Total Credits (%) <i>Minimum</i> <i>Maximum</i> | Suggested Breakdown of Credits (for Total=176) (No.) |
|-------|---|--|--|
| 1 | Humanities and Social Sciences (HS), including Management and <i>Environmental Studies</i> Coordinated by Department of Electrical Engineering and the student is required to complete this course during 3 rd / 4 th semester | | 10 04 |
| 2 | Basic Sciences(BS) including Mathematics, Physics, Chemistry, Biology; | | 23 |
| 3 | Engineering Sciences (ES), including Materials, Workshop, Drawing, Basics of Electrical/Electronics/Mechanical/Computer Engineering, Instrumentation; | | 25 |
| 4 | Professional Subjects-Core (PC), relevant to the chosen specialization/branch; (May be split into Hard (no choice) and Soft(with choice), if required;) Project Work, Seminar and/or Internship in Industry or elsewhere. | | 82 |
| 5 | Professional Subjects – Electives (PE), relevant to the chosen specialization/ branch; | | 20 |
| 6 | Open Subjects- Electives (OE), from other technical and/or emerging subject areas; | | 12 |
| 7 | Mandatory Courses (MC); | <i>Non-Credit 6-8 units</i> | |
| | | | 176 |

The suggested Course Work (=176 Credits, at 22/Semester on an average)

The Minimum Credit Requirement for the B.E. Degree is 176.

- 3.2 Open electives offered by any parent department are courses listed in the course structure under the open elective category and offered to students of any department including the parent department. The students of a particular programme have to complete the total credits required under the elective category by earning the minimum credits prescribed under the Programme Specific Elective (PSE) by registering for courses listed under the PSE category, for the remaining credits to be earned under the elective category, the students have the option to register for courses listed under the Open Elective (OE) category of other departments also.

Project

Project work may consist of Major Project and Mini Projects (optional) offered by parent department. The Major Project is a course with 8 credits and can comprise of Part I and Part II, spread over 1 or 2 semesters of final year, preferably during 7th and 8th semesters. Department may prescribe Mini Project as a requirement for the Degree or in lieu of equivalent elective credits. The method of evaluation for major and minor projects shall be evolved by pertinent BoS and appropriate grade is awarded which will be considered for SGPA and CGPA calculation

Mandatory Courses:

These are courses that must be completed by the student at appropriate time. The 'S' grade is awarded for satisfactory completion of the course and 'N' grade is awarded for noncompletion of the course. The 'S' and 'N' grades do not carry grade-points and hence not included in the SGPA, CGPA computations

Courses that come under this category are the following:

- (a) **Professional Ethics and Human Values**
 - (b) **Seminar:** The student will make presentations on topics of academic interest
 - (c) **Practical Training:** The student may complete the training before the beginning of the 7th semester and register for it in 7th Semester. The duration and the details shall be decided by the Faculty Advisor with approval from BoS
 - (d) *NCC/NSS and /or approved program Board of studies.*
- 3.3 The Department will discuss and recommend the exact credits offered for the programme for the above components the semester-wise distribution among them, as well as the syllabi of all undergraduate courses offered by the department from time to time before sending the same to the Board of Studies (BOS). The BOS will consider the proposals from the departments and make recommendations to the Academic Council for consideration and approval.

3.4 **Co-curricular and/or Extra-curricular activities:**

These are noncredit courses, with multiple options, to be completed at student's convenience. The student shall complete *a total of at least 2 items (with at least one from each of the two groups)* described below. On successful completion, a **certificate** regarding the activity that a student has participated in, may be issued by the Faculty in-charge of that particular activity. With the recommendation of the Faculty in-charge of Co-Curricular / Extra-Curricular Activities, the Dean (Students Welfare) may approve the **Report of Satisfactory Completion of such Co-Curricular and Extra-Curricular Activities.**

Group 1: Co-Curricular Activities, which includes activities in professional societies like IEEE, ISTE, IE, CSI, Department Associations, Lab Development, Participation in Paper Presentation, Model Building, etc.

Group 2: Extra-Curricular Activities, such as NSS, NCC, NSO, Community Services, Social work, Yoga, Meditation, Language Course, Health Care Services, Activities in Alumni Association, Participation in Sports, Games, Various Clubs of Institute

3.5 **Lower and Upper Limits for Course Credits Registered in a Semester/Session, by a Full time Student of the B.E.. Degree Programme:**

A full time student of the B.E. degree programme must register for a minimum of 14 credits, and up to a maximum of 30 credits per semester. However the minimum/maximum credit limit can be relaxed by the Principal and Dean (Academic) on the recommendations of the BoS only under extremely exceptional circumstances.

4. **DEGREE REQUIREMENTS:**

The degree requirements of a student for the B.E. programme are as follows:

(a) **Institute Requirements:**

- (i) Minimum Earned Credit Requirement for Degree is 176.
- (ii) Satisfactory completion of all Mandatory Courses
- (iii) Completion of the requirements on Co-curricular and/or Extra-curricular activities
- (iv) The degree will be offered four (o4) years after admission only and fulfilling above requirements.

(b) Programme Requirements:

Minimum Earned Credit Requirements on all Core Courses, Elective Courses and foundation courses

- (c) The Maximum duration for a student for complying to the Degree Requirement is as per affiliating university rules and UGC guidelines

5. Reregistration

A student shall be required to reregister for required courses, under the following circumstances:

- (a) If a student fails to earn the minimum credit specified below:

| Check Point | Credit Threshold |
|--------------------|------------------|
| End of FIRST year | 28 |
| End of SECOND year | 56 |
| End of THIRD year | 84 |

Note: The period of temporary withdrawal is not to be counted for the above Credit Threshold.

6. TERMINATION FROM THE PROGRAMME:

- a. If a student is absent for more than 8 (Eight) weeks at a stretch in a semester without sanctioned leave.
- b. Based on disciplinary action suggested by the Academic Council, on the recommendation of the appropriate committee.
- c. Student will be terminated from the program as per UGC/University rules and regulation

7. CHANGE OF BRANCH:

Change of branch will be allowed as per rules and regulations for change of branch published by Government of Maharashtra from time to time.

8. COMMITTEES / FUNCTIONARIES:

The following committees shall be constituted specifically for the Under Graduate (B.E.) degree programme:

8.1 Board of Studies (BOS-UG):

Constitution: as per UGC/AICTE Guidelines for autonomous institutes

8.2 Departmental Faculty Board (DFB)

Constitution:

| | | |
|------------------------|-----|----------|
| Programme Co-ordinator | ... | Chairman |
| All faculty | | Members |

Note:

- There shall be one DFB for every department that is involved in the teaching for the
- B.E. degree programme.
- The Secretary (DFB) shall be nominated by the Chairman on rotation basis for a period of one year from faculties.
- The Chairman may co-opt and/or invite more members including at most three outside experts.
- The quorum for each meeting shall be five.

Functions:

- i. To monitor the conduct of all undergraduate courses of the department.
- ii. To ensure academic standard and excellence of the courses offered by the department.
- iii. To develop/revise the curriculum for undergraduate courses offered by the department, and recommend the same to the BOS.
- iv. Moderation (only if and when found necessary) in consultation with the Course Co-coordinator, and approval of the finalized grades, before submission to CoE
- v. To consolidate the registration of the student and communicate to Course Co-coordinators, and also to the Dean (Academic).
- vi. To conduct performance appraisal of Course coordinators.
- vii. To provide feedback of the performance appraisal to the Course Co-coordinator and concerned authorities.
- viii. To consider any matter related to the undergraduate programme of the department.
- ix. In cases where a course is taught by more than one faculty member, or by different faculty members for different sections of students, shall co-ordinate (only in case of need) among all such faculty members regarding the teaching and evaluation of such courses.

- x. To conduct at least two meetings each semester and send the Resolutions of the meeting to the Board of Studies and also to maintain a record of the same in the department.
- xi. Any appropriate responsibility or function assigned by the Academic Council or the Chairman of the Academic Council or the BOS or the Chairman of the BOS.

COURSE STRUCTURE - UG

CONTENTS

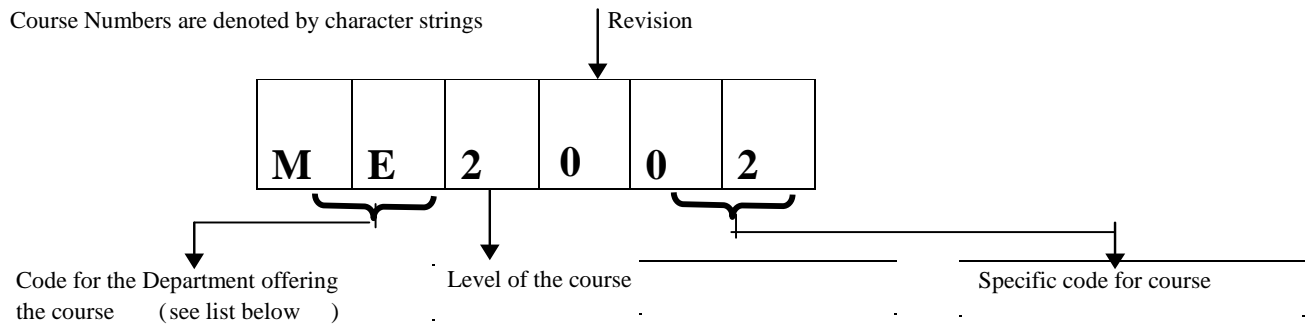
Course Numbering Scheme

First year Bachelor of Engineering

List of OE Courses Common to all or many Programs

Course Numbering Scheme

Course Numbers are denoted by character strings



Level 1 : First year Level 2 Second Year Level 3 Third Year Level 4 Fourth Year

Revision indicates updation in course Initially it will start with zero

Departments

| Sr. No. | Name of Department | Code |
|---------|---|------|
| 1 | Civil Engineering | CE |
| 2 | Computer Science and Engineering | CS |
| 3 | ELECTRICAL Engineering | EE |
| 4 | Electronics & Telecommunication Engineering | ET |
| 5 | Information Technology | IT |
| 6 | Mechanical Engineering | ME |
| 7 | Applied Mechanics | AM |
| 8 | Mathematics | MA |
| 9 | Physics,Chemistry,Biology | BS |
| 10 | Humanity,Social Science & Management | HS |

Contact Hours and Credits

Typical Course Load in a Semester

| No. of Courses | <i>Course Load per Semester Credits/Course</i> | Total Credits | <i>Contact Hours/Week *</i> |
|-----------------------------|--|---------------|-------------------------------------|
| Two Lecture Courses | 3:0:0 | 6 | 6 |
| Two Lec +Tut Courses | 3:1:0 | 8 | 10 |
| One Lec +Lab Course | 3:0:1 | 4 | 5 |
| One Lec +Lab+ Tut Course | 2:1:1 | 4 | 6 |
| One <i>Mandatory</i> Course | <i>Non-Credit</i> | 3 Units | 3 (For 3rd and 4th year) |
| Total: Six + one | 17:3:2 | 22 | 27 - 30 |

* Widely accepted figure ~ 27 - 30 hours/week, to enable the students to engage in home work assignments, self-learning outside the Class rooms/Laboratories, Extra/Co-Curricular activities and *add-on Courses*, if any, for their overall development. The Board of study for program can change typical course load giving emphasis on practical's based on courses conducted in semester but contact hours will not exceed 30 hours/week.