

**FACULTY OF ENGINEERING**

**RULES AND REGULATIONS**

**For four year**

**BACHELOR OF ENGINEERING**

*Degree Programme of*

**OSMANIA UNIVERSITY**

*(With effect from the academic year 2018-2019)*

**(As approved in Faculty Meeting held on 26<sup>th</sup> June 2018)**



**Issued by**

**Dean, Faculty of Engineering**

**Osmania University, Hyderabad - 500 007**

**Telangana State**

# **BACHELOR OF ENGINEERING**

(A Four Year Degree Programme)

**OSMANIA UNIVERSITY, HYDERABAD - 500 007, T.S**

## **RULES AND REGULATIONS**

*(With effect from the Academic year 2018-19)*

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**BACHELOR OF ENGINEERING**  
**(A Four Year Degree Programme)**  
OSMANIA UNIVERSITY, HYDERABAD, TELANGANA STATE

**RULES AND REGULATIONS**

*(With effect from the Academic year 2018 - 2019)*

**Note:** All the Rules and Regulations, hereinafter specified shall be read as a whole for the purpose of interpretation.

**1. ADMISSION**

A candidate for admission to the Four Year Degree Program in Engineering must have passed the Intermediate Examination of the Board of Intermediate Education, Government of Telangana with Mathematics, Physics and Chemistry as optional courses, or any other examination recognized by the Osmania University as equivalent there to.

All the eligible applicants shall have to qualify at the common Entrance Examination. The candidates will be admitted strictly in accordance with the merit secured at the Entrance Examination (EAMCET) conducted by the state government of Telangana, keeping in view the Rules in force regarding the reservations of seats to various categories of candidates. The other rules regarding admission to various B.E programmes for affiliated private engineering colleges as in force from time to time are also applicable.

**2 DURATION AND PROGRAM OF STUDY**

- 2.1 The duration of the program is eight semesters (four years) I, II, III, IV, V, VI, VII and VIII semesters. Each academic year shall comprise of two semesters.

**In each Semester:**

Instruction	: 16weeks
Preparation holidays (includes practical exams)	: 2 to 3weeks

No admission / readmission / promotion is to be made after four weeks of the commencement of instruction.

In case there are any court cases consequent to which the authorities are compelled to admit any candidate after the announced last date of admissions, the admission (seat) of such a student would be reserved for the subsequent year on a supernumerary basis.

No refund of Tuition fee will be made after the commencement of instruction.

2.2 The following Bachelor of Engineering (B.E.) programs of study are offered in the various affiliated colleges under the Faculty of Engineering, Osmania University :

- i. Civil Engineering
- ii. Mechanical Engineering
- iii. Electrical and Electronics Engineering
- iv. Electronics and Communication Engineering
- v. Computer Science and Engineering
- vi. Production Engineering
- vii. Electronics and Instrumentation Engineering
- viii. Automobile Engineering
- ix. Information Technology

The schedule of study of all programs are regulated by the Faculty of Engineering, Osmania University

(**Note:** The details of college wise B.E. Programmes offered every academic year can be obtained from respective colleges.)

2.3 Candidate who fails to fulfill all the requirements for the award of the degree as specified hereinafter (**N+2 years  $\Rightarrow$  4+2 = 6**) within six academic years from the time of admission, will forfeit his/her seat in the program and his/her admission will stand cancelled automatically.

### 3. ATTENDANCE

3.1 Candidates admitted to a particular programme of study are required to pursue a “Regular programme of study” before they are permitted to appear for the University Examination.

3.2 “A regular programme of study” means putting in **attendance of not less than 75%**.

(The cumulative monthly attendance in each subject and the aggregate attendance shall be displayed on the respective department notice board)

3.3. a) In special cases and for sufficient cause shown, the **Vice-Chancellor** may on the specific recommendation of the **Principal / Head of the Department**, condone the deficiency in attendance to the extent of 10% on medical grounds subject to submission of medical certificate and payment of condonation fee.

b) However in respect of women candidates who seek condonation of attendance due to pregnancy, the **Vice-Chancellor may condone** the deficiency in attendance to the extent of 15% (as against 10% Condonation for others) on medical grounds subject to submission of medical certificate to this effect. Such condonation Permitted only once during the programme of study.

3.4 The **fee for condonation of attendance on medical grounds shall be Rs.1000/-** payable through Demand Draft drawn in favour of **The Registrar**, Osmania University, Hyderabad and payable at Hyderabad.

- 3.5 Attendance of N.C.C/N.S.S Camps or inter collegiate or inter University or Inter State or international matches or debates or Educational Excursions or such other inter University activities as approved by the authorities involving journeys outside the city in which the college is situated will not be counted as absence. However, such absence shall not exceed, four weeks in the total period of instructions. Such leave should not be availed twice during the programme of study.
- 3.6 The attendance shall be calculated on the aggregate attendance of all the courses offered during the semester and reckoned from the date of commencement of classes / date of readmission in case of detained candidates as per the almanac communicated by The Dean, Faculty of Engineering, Osmania University.
- 3.7 In case of the candidates who fail to put up the required attendance in a program of study, he/she shall be detained in the same class and will not be permitted to appear for the University examination. Such candidates shall have to seek readmission into the same class during subsequent year in order to appear for the examination after fulfilling the attendance requirements and on payment of requisite tuition fee.
- 3.8. a) Candidates admitted to the first year through an entrance test and do not have the requisite attendance but have not less than 40% attendance can seek readmission without once again appearing for the entrance test.
- b) In respect of candidates of such programs where the admissions are governed through an entrance test, candidates of B.E. 1<sup>st</sup> - Semester who do not have the minimum 40% attendance would lose their seat and they will have to seek admission afresh by appearing at the entrance test once again.

#### 4. SCHEME OF INSTRUCTION AND EXAMINATION

- 4.1 Instruction in the various courses in each semester of all the four years shall be provided by the Dean, Faculty of Engineering, Osmania University as per the Scheme of Instructions and Syllabi prescribed.
- 4.2 The distribution of marks for **Continuous Internal Evaluation (CIE)** and the **Semester End Examination (SEE)** shall be as follows:

Course	Continuous Internal Evaluation (CIE)	Semester End Examination (SEE)
Each theory Course	30**	70****
Each practical or drawing Course for which 2/3 periods/week are provided in the Scheme of Instruction	25***	50
Each practical or drawing course for which 4 Periods / week are provided in the Scheme of Instruction	50***	50
Project	50 <sup>#</sup>	100 <sup>##</sup>

**Note:** Semester End Examination (SEE) means University Examination.

- 4.3 Based on combined marks (i.e. **CIE + SEE**) obtained by the candidate, **Letter Grades** are awarded and the corresponding **Grade Points** are shown in the Table below:

Academic Performance	Letter Grade	Grade Points
90% and above	S	10
80% and above but less than 90%	A	09
70% and above but less than 80%	B	08
60 % and above but less than 70%	C	07
50 % and above but less than 60%	D	06
40 % and above but less than 50%	E	05
Below40%	F	0

- 4.4. \*\* Out of 30 Continuous Internal Evaluation (**CIE**) marks for Theory Course, 10 marks are allotted for Assignments /Quizzes etc. At least two Assignments and one Quiz are to be conducted.

The rest of the 20 marks are allotted for internal test. **Two Internal Tests** will be conducted in each semester. Each test will carry 20 marks, out of which 6 marks are for Part-A consisting of objective and short answer questions and 14marks are for Part-B consisting of subjective questions. Average of two tests plus marks obtained in assignments/quizzes etc., will constitute the marks obtained by individual candidate under **CIE**.

- 4.5 \*\*\* Out of 25 or 50 CIE marks for Practical / Drawing course, 10 or 20 are allotted for viva-voce examination and 15 or 30 marks are awarded for class performance, record and observations.

- 4.6 \*\*\*\* The question paper for SEE will be in two parts, viz., Part-A and Part-B. Part-A (20 marks) is compulsory and it consist of 8 to 10 questions (short answer) covering the entire syllabus. Part-B (50 marks) consist of five questions (long answer) covering all the units of syllabus.

- 4.7 # Out of 50 marks under CIE for project, 25 marks are awarded by the Guide/Supervisor and remaining 25 are awarded by the subject expert committee constituted by the concerned Head of the Department at the respective College.

- 4.8 ## The evaluation of BE project for maximum of 100 marks will be done as per guidelines given below:

- i) **40 Marks** are allocated for quality of the project work covering
  - a. Literature-review,
  - b. innovation / Originality
  - c. Methodology and
  - d. Relevance / Practical application.
- ii) **30 Marks** are allocated to Report writing/Documentation.
- iii) **30 Marks** are allocated for candidates' performance in terms of his/her viva-vice examination and overall subject knowledge.

**Note:** A course which is evaluated based on **CIE** with no University Examination as per the scheme is treated as Pass when the candidate obtains **50% in CIE**.

- 4.9 The details of instruction period, examination schedule, vacation etc. shall be notified by the Dean, Faculty of Engineering, Osmania University.
- 4.10 The medium of instruction and examination shall be English.
- 4.11 At the end of each semester, Semester End Examination shall be conducted as prescribed in the respective Schemes of Examination. The examinations pertaining to the semester conducted immediately after the semester is termed as Main Examination and the examinations pertaining to the other semesters conducted thereafter will be called as Supplementary Examinations.
- 4.12 To enable- the B.E. Final Year students to complete the program requirements in time, there shall be a Make-up Exam, for VIII semester only, which will be scheduled within one month after publication of results of VIII semester (SEE) Main Examinations
- 4.13. All the examination in **Theory Course** shall be conducted as written examination for duration as prescribed in the Scheme of Examination. The examination in **Laboratory Courses** shall be conducted as written and oral together by carrying out the experiments as required in the specific Laboratory Course for the specified duration. Laboratory record of experiments conducted during semester is also required to be produced at the semester end examination. For the **Project work** (mini or major), the related document (**Report**) is to be produced at the time of oral examination.
- 4.14 All the general rules for examinations (**given under 9**) shall be adhered to.
- 4.15 A candidate shall be deemed to have fully passed a course (Theory/Practical), if he/she secures not less than the minimum marks/grade as prescribed. Minimum pass marks / grade in the University Examinations (SEE) plus CIE shall be.
- |      |  |                 |
|------|--|-----------------|
| i)   | Each Theory Subject                            | : 40% - E Grade |
| ii)  | Each Practical Course and Project              | : 50% - D Grade |
| iii) | Drawing Course treated as practical/Lab course | : 50% - D Grade |

**Important Note:** The candidate has to appear at the Semester End Examination (SEE) in all the Practical/Laboratory / Drawing Courses compulsorily irrespective of marks secured under CIE.

- 4.16. If a candidate in any semester examination of the program fails to secure the minimum marks/grade in any subject then he/she shall have to appear only in the failed course of the semester.

## 5. RULES OF PROMOTION:

Rules of Promotion are as shown in the below table:

S.No.	Semester / Class	Conditions to be fulfilled for Promotion			
1.	From I - Semester to II - Semester	Regular program of study of B.E. I - Semester and registration* for the I - Semester Examination			
	From II - Semester to III - Semester	a) Regular program of study of B.E. II -Semester and registration* for the II - Semester Examination. b) Must have earned at least 50% of credits prescribed for B.E. I - Semester & II -Semester put together. The number of credits a candidate can have as backlogs are as mentioned under.			
For Example		No. of credits prescribed for I - Semester and II -Semester	No. of credits permitted as backlogs	No. of credits prescribed for I - Semester and II -Semester	No. of credits permitted as backlogs
		33/34	17	41/42	21
		35/36	18	43/44	22
		37/38	19	45/46	23
		39/40	20	47/48	24
2.	From III - Semester to IV - Semester	Regular program of study of B.E. III - Semester and registration* for the III - Semester Examination.			
3.	From IV - Semester to V - Semester	a) Regular program of study of B.E. IV -Semester and registration* for the IV - Semester Examination. b) No. of backlog credits, if any of B.E. I, II, III and IV Semesters put together shall not exceed 50% of the total No. of credits prescribed for the B.E. III & IV Semesters.			
For Example		No. of credits prescribed for III - Semester and IV -Semester	No. of credits permitted as backlogs	No. of credits prescribed for III - Semester and IV -Semester	No. of credits permitted as backlogs
		33/34	17	41/42	21
		35/36	18	43/44	22
		37/38	19	45/46	23
		39/40	20	47/48	24
4.	From V Semester to VI Semester	Regular program of study of B.E. V - Semester and registration* for the V - Semester Examination.			
5.	From VI Semester to VII Semester	a) Regular program of study of B.E. VI -Semester and registration* for the VI - Semester Examination. b) No. of backlog credits, if any of B.E. I to VI Semesters put together shall not exceed 50% of the total No. of credits prescribed for the B.E. V & VI Semesters.			
For Example		No. of credits prescribed for III - Semester and IV -Semester	No. of credits permitted as backlogs	No. of credits prescribed for III - Semester and IV -Semester	No. of credits permitted as backlogs
		33/34	17	41/42	21
		35/36	18	43/44	22
		37/38	19	45/46	23
		39/40	20	47/48	24
6.	From VII Semester to VIII Semester	Regular program of study of B.E. VII - Semester and registration* for the VII - Semester Examination.			
7	For Course Completion	Regular program of study of B.E. VIII - Semester and registration* for the VIII - Semester Examination.			



**Note: \* Registration means obtaining a Hall ticket for the said examination.**

1. If a candidate has more than permitted number of credits as backlogs, he/she will be detained. The candidate who wishes to take readmission into the year in which he/she is detained has to pay the total tuition fee of that year and all the credits earned during that year shall become null and void.
2. If the number of credits permitted as backlogs is not a whole number, the credits are rounded to next higher digit/whole number.

## **6. GRADINGSYSTEM:**

- 6.1 Candidates who have passed all the examinations of the B.E. Degree Program shall be awarded Division in accordance with the grades secured by them in all eight Semesters taken together, including the CIE marks secured in those semesters.

The Grade secured by the candidate will be shown in the Memorandum of Marks as per his/her performance both in SEE and CIE together and as per the norms indicated in clause 4.3.

A minimum Cumulative Grade Point Average (CGPA) of 5 is required for the award of Degree. The consolidated memorandum of marks will reflect the Credits & Grade obtained by the candidates in all the course of B.E. Programme.

## **6.2 Semester Grade Point Average (SGPA) & Cumulative Grade Point Average (CGPA) Calculations:**

$$\text{a) } \text{SGPA} = \frac{\sum(\text{Letter Grade Point} \times \text{Credits})}{\sum(\text{Credits})}$$

- SGPA is calculated up to second decimal point
- SGPA is calculated only when all subjects in that semester are Cleared /Passed

$$\text{b) } \text{CGPA} = \frac{\sum[(\text{SGPA}) \times (\text{Total Credits in Semester})]}{\sum(\text{Total Credits})}$$

- CGPA at a given point of Semester is calculated up to second decimal point
- CGPA is calculated only when total credits earned are equal to total credits prescribed as per the scheme, up to a semester in which the candidate has last appeared for **Semester End Examination(SEE)**.

## **7. AWARD OFDEGREE:**

The degree of Bachelor of Engineering will be conferred on candidate who has pursued a regular program of study of four academic years as here in after prescribed in the Scheme of Instruction and has passed all the examinations as prescribed in the Scheme of Examinations.

## 7.1 AWARD OF DIVISION:

- CGPA 7.5 and above : **First Class with Distinction**
- CGPA 6.5 and above but less than 7.5 : **First Class**
- CGPA 5.5 and above but less than 6.5 : **Second Class**
- CGPA 5.0 and above but less than 5.5 : **Pass Class**

## 7.2 AWARD OF GOLD MEDAL:

A student securing **highest CGPA in single attempt is eligible for award of Gold Medal.**

## 8. IMPROVEMENT OF OVERALL SCORE:

- 8.1 A candidate who wishes to improve his/her Overall score may do so within one academic year immediately after having passed all the examinations of the BE. degree program, by reappearing at not more than two semesters (all subjects pertaining to the semester taken together) examinations. For the award of the Overall score, he/she will have the benefit of the higher of the two aggregates of marks / grades secured in the corresponding semester(s).
- 8.2 In case of candidates who have secured CGPA less than 5 may appear for improvement in individual subjects to become eligible for the award of Degree within one year from the date of completion of VIII -Semester.

## 9. GENERAL RULES OF EXAMINATIONS:

- 9.1 Application for permission to appear at every examination shall be made on the prescribed form, accompanied by three passport size full face photographs (not profile) which along with the necessary certificates regarding attendance, practical work etc., and the prescribed fee, should be sent to the Controller of Examination; (COE) O.U through the Principal of the College where candidate is enrolled as a regular student.
- 9.2 When a candidate's application is found in order and he/she is eligible to appear at an Examination, the COE, O.U. shall furnish him with a Hall Ticket, enabling the candidate to appear in the Examination, and this Hall-Ticket shall have to be produced by the Candidate before he/she is admitted to the premises where the Examination is conducted.
- 9.3 A Candidate who does not present himself/herself for the examination for any reason whatsoever, excepting shortage of attendance, shall not be entitled to claim refund of the whole or part of the examination fee for subsequent Examination(s).
- 9.4 A candidate after he/she has been declared successful in the whole examination, shall be given a Provisional Certificate indicating the year of examination, the programme in which he/she was examined and, the overall Grade (CGPA) secured. However, the candidates have to obtain **degree certificate** from the University Examination branch as per the notification issued by it.
- 9.5 No candidate shall be allowed to put in attendance for multiple programmes and appear at examinations for the same simultaneously.

- 9.6 Students who have appeared once at any examination of the program need not put in fresh attendance, if they wish to reappear at the corresponding examination, notwithstanding the fact that the University may have introduced new courses. They will, however, have to appear at the examinations according to the scheme of examination and syllabi inforce.

10. **TRANSITORY REGULATIONS:**

Whenever a Course or Scheme of Instruction is revised / modified in a particular semester/year, two more examinations immediately following thereafter shall be conducted according to the old syllabus/regulations. Candidates not appearing at the examinations or failing in them shall take the examination subsequently according to the revised syllabus and regulations.

11. **RANGE OF CREDITS:**

Credits should get 160 for a student to be eligible to get Under Graduate degree in Engineering.

A student will be eligible to get Under Graduate degree with Honours or additional Minor Engineering, if he/she completes an additional 20 credits. These could be acquired through MOOCs.

[A **Massive Open Online Course** (MOOC) is a free Web-based distance learning program that is designed for the participation of large numbers of geographically dispersed students. A MOOC may be patterned on a college or university course or may be less structured].

\* \* \* \* \*

## SCHEME OF INSTRUCTION &amp; EXAMINATION

B.E. (All Branches) I - Semester

(Group - A)

Group 13

S. No.	Course Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
			L	T	P/D	Contact Hours/Week	CIE	SEE	Duration in Hours	
Three Week Induction Programme										
Theory Course										
1	BS102MT	Mathematics-I	3	1	-	4	30	70	3	4
2	BS104PH	Physics	3	1	-	4	30	70	3	4
3	ES106EE	Basic Electrical Engineering	3	1	-	4	30	70	3	4
Practical / Laboratory Course										
4	BS152PH	Physics Lab	-	-	3	3	25	50	3	1.5
5	ES154EE	Basic Electrical Engineering Lab	-	-	2	2	25	50	3	1
6	ES156CE	Engineering Graphics & Design	1	-	4	5	50	50	3	3
Total			10	03	09	22	190	360		17.5

BS: Basic Science  
L: Lect

ES: Engineering Sci

BS: Basic Science

ES: Engineering Science

L: Lecture

T: Tutorial

P: Practical

D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

Note: Each contact hour is a Clock Hour.

ATTESTED



Principal

Matrusri Engineering College  
Saidabad, Hyderabad.

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (All Branches) II - Semester**  
**(Group - A)**

S. No.	Course Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
			L	T	P / D	Contact Hours/Week	CIE	SEE	Duration in Hours	
Theory Course										
1	HS101EG	English	2	-	-	2	30	70	3	2
2	BS103MT	Mathematics-II	3	1	-	4	30	70	3	4
3	BS105CH	Chemistry	3	1	-	4	30	70	3	4
4	ES107CS	Programming for Problem Solving	3	-	-	3	30	70	3	3
Practical / Laboratory Course										
5	HS151EG	English Lab			2	2	25	50	3	1
6	BS153CH	Chemistry Lab			3	3	25	50	3	1.5
7	ES155CS	Programming for Problem Solving Lab			4	4	25	50	3	2
8	ES157ME	Workshop / Manufacturing Process	1	-	4	5	50	50	3	3
		Total	12	02	13	27	245	480		20.5

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

L: Lectures

T: Tutorials

P: Practical

D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

**Note:**

- Each contact hour is a Clock Hour
- The students have to undergo a Summer Internship of 1 week duration after II-Semester.

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**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (All Branches) I - Semester**  
**(Group - B)**

S. No.	Course Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
			L	T	P/ D	Contact Hours/Week	CIE	SEE	Duration in Hours	
Three Week Induction Programme										
Theory Course										
1	BS102MT	Mathematics-I	3	1	-	4	30	70	3	4
2	BS105CH	Chemistry	3	1	-	4	30	70	3	4
3	ES107CS	Programming for Problem Solving	3	-	-	3	30	70	3	3
Practical/ Laboratory Course										
4	BS153CH	Chemistry Lab	-	-	3	3	25	50	3	1.5
5	ES155CS	Programming for Problem Solving Lab	-	-	4	4	25	50	3	2
6	ES157ME	Workshop/ Manufacturing Process	1	-	4	5	50	50	3	3
Total			10	02	09	23	190	360		17.5

BS: Basic Science

ES: Engineering Science

L: Lecture

T: Tutorial

P: Practical

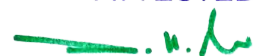
D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

**Note:** Each contact hour is a Clock Hour.

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**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (All Branches) II - Semester**  
**(Group - B)**

S. No.	Course Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
			L	T	P/D	Contact Hours/Week	CIE	SEE	Duration in Hours	
Theory Course										
1	HS101EG	English	2	-	-	2	30	70	3	2
2	BS103MT	Mathematics-II	3	1	-	4	30	70	3	4
3	BS104PH	Physics	3	1	-	4	30	70	3	4
4	ES106EE	Basic Electrical Engineering	3	1	-	4	30	70	3	4
Practical/ Laboratory Course										
5	HS151EG	English Lab	-	-	2	2	25	50	3	1
6	BS152PH	Physics Lab	-	-	3	3	25	50	3	1.5
7	ES154EE	Basic Electrical Engineering Lab	-	-	2	2	25	50	3	1
8	ES156CE	Engineering Graphics & Design	1	-	4	5	50	50	3	3
		Total	12	03	11	28	245	480		20.5

**HS:** Humanities and Social Sciences    **BS:** Basic Science    **ES:** Engineering Science  
**L:** Lectures    **T:** Tutorials    **P:** Practical    **D:** Drawing  
**CIE:** Continuous Internal Evaluation    **SEE:** Semester End Examination (Univ. Exam)

**Note:**

- Each contact hour is a Clock Hour
- The students have to undergo a Summer Internship of 1 week duration after II-Semester.

ATTESTED



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 Matrusri Engineering College  
 Saidabad, Hyderabad.

**SCHEME OF INSTRUCTION & EXAMINATION  
B.E. (Civil Engineering) III – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	MC204CE	Overview of Civil Engineering*	1	-	-	1	30	-	-	-
4	HS203MP	Industrial Psychology	3	-	-	3	30	70	3	3
5	BS206BZ	Biology for Engineers	3	-	-	3	30	70	3	3
6	ES211CE	Engineering Mechanics	2	1	-	3	30	70	3	3
7	ES213ME	Energy Sciences and Engineering	2	-	-	2	30	70	3	2
8	PC221CE	Solid Mechanics	3	-	-	3	30	70	3	3
9	PC222CE	Engineering Geology	2	-	-	2	30	70	3	2
10	PC223CE	Surveying and Geomatics	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
11	PC251CE	Engineering Geology Lab	-	-	2	2	25	50	3	1
12	PC252CE	Surveying Lab	-	-	2	2	25	50	3	1
			23	01	04	28	350	730		21

HS: Humanities and Social Sciences      BS: Basic Science      ES: Engineering Science  
 MC: Mandatory Course      PC: Professional Core  
 L: Lecture      T: Tutorial      P: Practical      D: Drawing  
 CIE: Continuous Internal Evaluation      SEE: Semester End Evaluation (Univ. Exam)  
 PY: Philosophy, BZ: Biology/ Life Sciences, CE: Civil Engineering  
 MP: Mechanical / Production Engineering, ME: Mechanical Engineering.

**Note:**

- Each contact hour is a clock hour
- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All the mentioned **Mandatory Courses** should be offered either in I–Semester or II–Semester only **from the academic year 2019-2020**.
- For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I–Semester or II–Semester, they should be offered either in III–Semester or IV–Semester of the **academic year 2019-2020**.

\* Mandatory Course for Civil Engineering Students only

**ATTESTED**  
  
**Principal**  
 Matrusri Engineering College  
 Saidabad, Hyderabad.




**SCHEME OF INSTRUCTION & EXAMINATION  
B.E. (Civil Engineering) IV – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC111PO	Indian Constitution	2	-	-	2	30	70	3	-
2	HS201EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
3	HS202CM	Finance and Accounting	3	-	-	3	30	70	3	3
4	BS205MT	Mathematics – III (PDE, Probability & Statistics)	3	-	-	3	30	70	3	3
5	ES212ME	Elements of Mechanical Engineering	3	-	-	3	30	70	3	3
6	PC231CE	Mechanics of Materials and Structures	3	-	-	3	30	70	3	3
7	PC232CE	Fluid Mechanics	3	-	-	3	30	70	3	3
8	PC233CE	Materials: Testing and Evaluation	2	-	-	2	30	70	3	2
Practical/ Laboratory Courses										
9	PC261CE	Solid Mechanics Lab	-	-	2	2	25	50	3	1
10	PC262CE	Materials: Testing and Evaluation Lab	-	-	2	2	25	50	3	1
			22	-	04	26	290	660		22

HS: Humanities and Social Sciences      BS: Basic Science      ES: Engineering Science  
 MC: Mandatory Course      PC: Professional Core  
 L: Lecture      T: Tutorial      P: Practical      D: Drawing  
 CIE: Continuous Internal Evaluation      SEE: Semester End Evaluation (Univ. Exam)  
 PO: Political Science, EG: English, CM: Commerce, MT: Mathematics, CE: Civil Engineering,  
 ME: Mechanical Engineering.

**Note:**

- Each contact hour is a clock hour
- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All the mentioned **Mandatory Courses** should be offered either in I–Semester or II–Semester only **from the academic year 2019-2020**.
- For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I–Semester or II–Semester, they should be offered either in III–Semester or IV–Semester of the **academic year 2019-2020**.
- The students have to undergo a Summer Internship of two-week duration after IV–Semester and credits will be awarded in V–Semester after evaluation.

  
**Principal**  
 Matrusri Engineering College  
 Saidabad, Hyderabad.

## SCHEME OF INSTRUCTION & EXAMINATION B.E. (Computer Science and Engineering) III – SEMESTER

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	HS204ME	Operations Research	3	-	-	3	30	70	3	3
4	BS206BZ	Biology for Engineers	3	-	-	3	30	70	3	3
5	ES214EC	Basic Electronics	3	-	-	3	30	70	3	3
6	ES216EC	Digital Electronics	3	-	-	3	30	70	3	3
7	PC221CS	Data Structures and Algorithms	3	-	-	3	30	70	3	3
8	PC222CS	Discrete Mathematics	3	-	-	3	30	70	3	3
9	PC223CS	Programming Languages	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
10	ES251EC	Basic Electronics Lab	-	-	2	2	25	50	3	1
11	PC252CS	Data Structures and Algorithms Lab	-	-	2	2	25	50	3	1
12	PC253CS	Advanced Computer Skills Lab	-	-	2	2	25	50	3	1
			25	-	06	31	345	780		24

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

MC: Mandatory Course

PC: Professional Core

L: Lecture T: Tutorial

P: Practical

D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Evaluation (Univ. Exam)


PY: Philosophy, BZ: Biology/ Life Sciences, CE: Civil Engineering, CS: Computer Science and Engineering

EC: Electronics and Communication Engineering, ME: Mechanical Engineering.

**Note:**

- Each contact hour is a clock hour
- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All the mentioned **Mandatory Courses** should be offered either in I–Semester or II–Semester only **from the academic year 2019-2020.**
- For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I–Semester or II–Semester, they should be offered either in III–Semester or IV–Semester of the **academic year 2019-2020.**

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**Principal**  
Matrusri Engineering College  
Saidebad, Hyderabad.

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (Computer Science and Engineering) IV – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC111PO	Indian Constitution	2	-	-	2	30	70	3	-
2	HS201EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
3	HS202CM	Finance and Accounting	3	-	-	3	30	70	3	3
4	BS207MT	Mathematics – III (Probability & Statistics)	3	-	-	3	30	70	3	3
5	ES215EC	Signals and Systems	3	-	-	3	30	70	3	3
6	PC231CS	OOP using JAVA	3	-	-	3	30	70	3	3
7	PC232CS	Computer Organization	3	-	-	3	30	70	3	3
8	PC233CS	Database Management Systems	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
9	PC261CS	Computer Organization Lab	-	-	2	2	25	50	3	1
10	PC262CS	OOP using JAVA Lab	-	-	2	2	25	50	3	1
11	PC263CS	Database Management Systems Lab	-	-	2	2	25	50	3	1
			23	-	06	29	315	710		24

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

MC: Mandatory Course

PC: Professional Core

L: Lecture T: Tutorial

P: Practical

D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Evaluation (Univ. Exam)

PO: Political Science, EG: English, CM: Commerce, MT: Mathematics,

CS: Computer Science and Engineering, EC: Electronics and Communication Engineering,

**Note:**

- Each contact hour is a clock hour
- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All the mentioned **Mandatory Courses** should be offered either in I-Semester or II-Semester only **from the academic year 2019-2020**.
- For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I-Semester or II-Semester, they should be offered either in III-Semester or IV-Semester of the **academic year 2019-2020**.
- The students have to undergo a Summer Internship of two-week duration after IV-Semester and credits will be awarded in V – Semester after evaluation.

*Principal*  
 Matrusri Engineering College  
 Saidebad, Hyderabad.

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (Electrical and Electronics Engineering) III – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	HS203MP	Industrial Psychology	3	-	-	3	30	70	3	3
4	BS206BZ	Biology for Engineers	3	-	-	3	30	70	3	3
5	ES211CE	Engineering Mechanics	2	1	-	3	30	70	3	3
6	ES213ME	Energy Sciences and Engineering	2	-	-	2	30	70	3	2
7	PC221EE	Electrical Circuit Analysis	3	-	-	3	30	70	3	3
8	PC222EE	Electromagnetic Fields	3	-	-	3	30	70	3	3
9	PC223EC	Analog Electronics	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
10	PC252EE	Computer Aided Electrical Drawing Lab	-	-	2	2	25	50	3	1
11	PC253EC	Analog Electronics Lab	-	-	2	2	25	50	3	1
			23	01	04	28	320	730		22

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

MC: Mandatory Course

PC: Professional Core

L: Lecture T: Tutorial

P: Practical

D: Drawing


CIE: Continuous Internal Evaluation

SEE: Semester End Evaluation (Univ. Exam)

**Note:**

- Each contact hour is a clock hour
- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All Mentioned **Mandatory Course** should be offered BE (All Branches) either in I-semester or II – Semester only **from the academic year 2019-2020**.
- For those of the students admitted BE (All Branches) during the academic year 2018-2019 the Mandatory Courses were not offered during the I-semester or II –Semester may be compulsorily offered in either in III-semester or IV-semester **for the academic year 2019-2020 only**.

ATTESTED



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 Saidabad, Hyderabad.



**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (Electrical and Electronics Engineering) IV – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC111PO	Indian Constitution	2	-	-	2	30	70	3	-
2	HS201EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
3	HS202CM	Finance and Accounting	3	-	-	3	30	70	3	3
4	BS205MT	Mathematics – III	3	-	-	3	30	70	3	3
5	ES212ME	Elements of Mechanical Engineering	3	-	-	3	30	70	3	3
6	PC231EE	Electrical Machines – I	3	-	-	3	30	70	3	3
7	PC232EE	Digital Electronics and Logic Design	3	-	-	3	30	70	3	3
8	PC233EE	Power Electronics	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
9	PC261EE	Electrical Machines Lab – I	-	-	2	2	25	50	3	1
10	PC262EE	Digital Electronics and Logic Design Lab	-	-	2	2	25	50	3	1
			23	-	04	27	290	730		23

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

MC: Mandatory Course

PC: Professional Core

L: Lecture T: Tutorial

P: Practical

D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Evaluation (Univ. Exam)

**Note:**

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- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All Mentioned **Mandatory Course** should be offered BE (All Branches) either in I-semester or II – Semester only **from the academic year 2019-2020**.
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**Principal**  
**Matrusri Engineering College**  
**Saidabad, Hyderabad.**

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (Electronics and Communication Engineering) III – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits	
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs		
Theory Courses											
1	MC111PO	Indian Constitution	2	-	-	2	30	70	3	-	
2	HS201EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3	
3	HS202CM	Finance and Accounting	3	-	-	3	30	70	3	3	
4	BS205MT	Mathematics – III (PDE, Probability & Statistics)	3	-	-	3	30	70	3	3	
5	ES212ME	Elements of Mechanical Engineering	3	-	-	3	30	70	3	3	
6	ES216EC	Digital Electronics	3	-	-	3	30	70	3	3	
7	PC221EC	Electronic Devices	3	-	-	3	30	70	3	3	
8	PC222EC	Network Theory	3	-	-	3	30	70	3	3	
Practical/ Laboratory Courses											
9	PC251EC	Electronic Devices Lab	-	-	2	2	25	50	2	1	
10	PC252EC	Electronic Workshop	-	-	2	2	25	50	2	1	
			23	-	04	27	290	660		23	

HS: Humanities and Social Sciences      BS: Basic Science      ES: Engineering Science  
MC: Mandatory Course      PC: Professional Core  
L: Lecture      T: Tutorial      P: Practical      D: Drawing  
CIE: Continuous Internal Evaluation      SEE: Semester End Evaluation (Univ. Exam)  
PO: Political Science, EG: English, CM: Commerce, MT: Mathematics, ME: Mechanical Engineering.  
EC: Electronics and Communication Engineering.

**Note:**

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- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All the mentioned **Mandatory Courses** should be offered either in I–Semester or II–Semester only **from the academic year 2019-2020**.
- For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I–Semester or II–Semester, they should be offered either in III–Semester or IV–Semester of the **academic year 2019-2020**.

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Saidabad, Hyderabad.

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E.(Electronics and Communication Engineering)IV – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	HS213MP	Industrial Psychology	3	-	-	3	30	70	3	3
4	BS206BZ	Biology for Engineers	3	-	-	3	30	70	3	3
5	ES215EC	Signals and Systems	3	-	-	3	30	70	3	3
6	PC231EC	Analog Electronic Circuits	3	-	-	3	30	70	3	3
7	PC232EC	Electromagnetic Theory and Transmission Lines	3	-	-	3	30	70	3	3
8	PC233EC	Pulse and Linear Integrated Circuits	3	-	-	3	30	70	3	3
9	PC234EC	Computer Organisation and Architecture	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
10	PC261EC	Analog Electronic Circuits Lab	-	-	2	2	25	50	3	1
11	PC262EC	Pulse and Linear Integrated Circuits Lab	-	-	2	2	25	50	3	1
			25	-	04	29	320	730		23

HS: Humanities and Social Sciences      BS: Basic Science      ES: Engineering Science  
MC: Mandatory Course      PC: Professional Core  
L: Lecture      T: Tutorial      P: Practical      D: Drawing  
CIE: Continuous Internal Evaluation      SEE: Semester End Evaluation (Univ. Exam)  
PY: Philosophy, BZ: Biology/ Life Sciences, CE: Civil Engineering,  
MP: Mechanical / Production Engineering, EC: Electronics and Communication Engineering.

**Note:**

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- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
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- For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I–Semester or II–Semester, they should be offered either in III–Semester or IV–Semester of the **academic year 2019-2020**.
- The students have to undergo a Summer Internship of two-week duration after IV – Semester and credits will be awarded in V–Semester after evaluation.

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**Principal**  
Matrusri Engineering College  
Saidabad, Hyderabad.

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (Mechanical Engineering) III – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC111PO	Indian Constitution	2	-	-	2	30	70	3	-
2	HS201EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
3	HS202CM	Finance and Accounting	3	-	-	3	30	70	3	3
4	BS205MT	Mathematics-III	3	-	-	3	30	70	3	3
5	ES211CE	Engineering Mechanics	2	1	-	3	30	70	3	3
6	ES214EC	Basic Electronics	2	-	-	2	30	70	3	2
7	PC221ME	Metallurgy and Material Science	3	-	-	3	30	70	3	3
8	PC222ME	Thermodynamics	3	1	-	4	30	70	3	4
Practical/ Laboratory Courses										
9	PC251ME	Metallurgy and Material Testing Lab	-	-	2	2	25	50	3	1
10	PC252ME	Machine Drawing and Modelling Lab	-	-	2	2	25	50	3	1
			21	02	04	27	290	660		23

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

MC: Mandatory Course

PC: Professional Core

L: Lecture T: Tutorial

P: Practical

D: Drawing

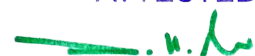
CIE: Continuous Internal Evaluation

SEE: Semester End Evaluation (Univ. Exam)

**Note:**

- Each contact hour is a clock hour
- The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
- All Mentioned **Mandatory Course** should be offered BE (All Branches) either in I-semester or II – Semester only **from the academic year 2019-2020**.
- For those of the students admitted BE (All Branches) during the academic year 2018-2019 the Mandatory Courses were not offered during the I-semester or II –Semester may be compulsorily offered in either in III-semester or IV-semester **for the academic year 2019-2020 only**.

ATTESTED



**Principal**  
 Matrusri Engineering College  
 Saldabad, Hyderabad.



**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. (Mechanical Engineering) IV – SEMESTER**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	HS213MP	Industrial Psychology	3	-	-	3	30	70	3	3
4	BS206BZ	Biology for Engineers	3	-	-	3	30	70	3	3
5	ES213ME	Energy Sciences and Engineering	2	-	-	2	30	70	3	2
6	PC231ME	Mechanics of Materials	3	-	-	3	30	70	3	3
7	PC232ME	Applied Thermodynamics	3	-	-	3	30	70	3	3
8	PC233ME	Kinematics of Machinery	3	-	-	3	30	70	3	3
9	PC234ME	Manufacturing Processes	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
10	PC261ME	Thermal Engineering Lab – I	-	-	2	2	25	50	3	1
11	PC262ME	Manufacturing Processes Lab	-	-	2	2	25	50	3	1
			24	-	04	28	320	730		22

HS: Humanities and Social Sciences

BS: Basic Science

ES: Engineering Science

MC: Mandatory Course

PC: Professional Core

L: Lecture T: Tutorial

P: Practical

D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Evaluation (Univ. Exam)

**Note:**

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ATTESTED



**Principal**  
 Matrusri Engineering College  
 Saidabad, Hyderabad.