Brochure/prospectus, and handbook/syllabus book highlighting programs and courses offered for each year for all the 5 assessment years, attested by

### **Placement & Cerfitification Courses**

The definition of employment is changing all over the world. The reasons are many. Firstly, the fast-changing technology of producing goods means obs are getting continuously redefined. Secondly, the intense pressure of competition from globalisation means jobs are vanishing. Third, forces of automation and three-dimensional printing make it possible to produce customised and complex products in small batches. Fourthly, the fast changing nature of consumer preferences calls for changes in job description. So, producers have to maintain flexibility.

Whatever be the reasons, Engineers need to be in continuous learning mode and possibly change lobs" several times in their working lives. This makes us to focus us new skills on a continuous basis. We have a strange situation that Engineers can't find enough jobs, and companies can't find enough qualified Engineers. It reflects a mismatch in skills and workforce. We have simultaneous existence of skills and jobs shortage.

In this regards ATME College of Engineers comes up with a unique idea of imparting industry oriented skill sets along with regular syllabus. ATME has entered into MOUs to training our students. Certification course of ranging from 16-52 weeks are offered to enhance the employability of our Engineers. This value added service will be of great help to our Engineers.



## MOU's for certification courses

GTFC | CADD Centre | RTFC | Skillfinity | CISCO | DELL EMC | Prolific Systems aud Technologies Pvt Ltd | Vivarthan Technologies (SCADA & PLC) | RMJ Automation Solutions & Training Pvt Ltd

Dreamer, Innovator, Researcher, Problem Solver, Inventor, Creator- All are terms that aptly describe the Characteristics of "ENGINEER"

## Courses Offered Principal

#### Under Graduate Courses

Civil Engineering | Computer Science Engineering | Electrical & Electronics Engineering | Electronics & Communication Engineering | Mechanical Engineering

## **VIDYA ASARE**

#### Free ship/Scholarship Scheme

The scheme aims to provide Freeship / Scholarship to 50 students getting admission at I year level, in appreciation of their outstanding achievements in Academic, co-curricular, sports and extra-curricular activities.

SL No.	CET Ranking or PCM %		Transportation Fee Concession**	Remarks
				For all 4 Years

#### NOTE

- Tuition Fee Concession is extended only for Direct Admission under Management Quota
- \*\* College & Transportation Fee Concession is extended for all (CET, COMED-K & Management) Quota Seats

College Office 13th Kilometer Mysore - Kanakapura -Bangalore Road Mysore - 570028 P: +91-821-2593335 F: +91-821-2593328 **Trust Office** #2904(CH67), II Floor Kantharaj Urs Road Saraswathipuram Mysore - 570 009 P: +91-821-4191551 F: +91-821-4191553

Email : Info@atme.in

in Web : www.atme.in

For admissions contact Secretary AAO 91-94482-85651 +91-94482-8564 Principal PRO

## 

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. Inspiring Faculty . Spacious Classrooms . Digital Classrooms . Well Stocked Central Library & Digital Library . State-of-the-art Laboratories . Central Computing Center . High Speed Browsing Center . Campus Automation . Cluster of Well Equipped Seminar Halls . Hygienic Cafeteria . Medical Assistance . Convenience Shop . Transportation Facility . Secure Environment . 24 hrs Power Backup . Separate common area for Boys and Girls . 450 Seater Auditorium . Alumni Association . Digital Classrooms . Research Centre . Software Development Cell . E Cell & Placement Cell centre for Career Guidance

# You are One of a Kind, So Are We

Choosing a right place to attend college is a big decision. It can be the key that opens the door to a lifetime of opportunities for growth and service. By choosing to study at ATME you are taking the first step towards entering into a professional career. You can be onfident that your engineering degree at ATME will be an investment into your future - both financially and intellectually. At ATME, education is not entirely academic, it extends beyond classrooms, laboratories and libraries. to industry environments, seminars, workshops and live projects, hence enhancing your talents and giving you essential knowledge related to your dream industry.

The people behind the institute being technocrats & academicians make sure that ATME'ians have a distinct edge over others when they step into the industry. Also the career guidance cell at the institute has an incubation centre which trains students in personality development, entrepreneurship development and encourages students with special talents to realize their dreams and ambitions.

The career guidance cell at the institute has an incubation centre which trains students in various facets to help in holistic growth of students and encourages students with special talents to realize their dreams and ambitions. These trainings are started from the very first semester and spread over the whole 4 year duration of the course. The training and placement cell in the college has done a commendable job setting up new benchmarks of placements for pvt engineering colleges in Mysore. More than 85% of eligible students of the very first outgoing batch are placed in national and multinational companies.

We at ATME invite you to visit our magnificent campus, inspect the state-of-art facilities, meet & discuss with students & faculty to discover the exciting opportunities that an engineering curriculum & career can offer and find out why we at ATME are called "Pacesetters for the future society".





Why ATME ?

- Cutting-edge style in infrastructure as well as delivery of education
- Current-day environment for professional development to global standards
- Pervasive culture of excellence
- Care and support for students' future careers
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- Promoted by the best names in education dechnology and ring social service 13th KM Mysuru-Kanakapura-Bangalore Road
- ISO Certified Engineering College Laballi Mysuru-570 028



"To become an outstanding Technological University at the cutting edge of Science and Technology that produces world class Knowledge-delivery, Research, Extension and Leadership in Technology Innovation for Industry and Society".



"To plan the development of Technical Education, to establish value and need-based Education and Training in Engineering and Technology, with a view to generate qualified and competent manpower, responsive to Technological and societal needs".

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi – 590 018, Karnataka Phone: 0831 -2498100/2405468 Fax: 0831- 2405467 E – Mail: registrar@vtu.ac.in, Web: www.vtu.ac.in

Syllabus Copy of 2018-19 Scheme



REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY (BE/B.Tech) UNDER OUTCOME BASED EDUCATION (OBE) AND

**CHOICE BASED CREDIT SYSTEM (CBCS)** Effective from the academic year 2018 – 19

ATME College of Engineering 13#KM Mysuru-Kanakapura-Bangalore Road AUGUST - 2018 Mellahalli Mysuru-570 028

Semester (Odd:1,Even:II) I I I I I	Cou Num XX1	iber	Credits	Mas	Grade	Grade Points	Credit Points	SGPA	COR
Î I I	XX				G	DA	CC	JUIL	, CGPA
Î I I	XX	101	5:0:0		В	8	40		Sec.
Ī			3:2:0		Absent(F)	-	-	SGP	
*	XXI		3:0:0		A	9	27	= 11	
I	XX		0:1:1		F	0	00	=5.8	
1	XX			4:1:0	D	6	30	1 5.0	
I	XX	106	5:0:0		Е	4	20		
Total	ez.br	9,20	20 (18	*)	Tota	1	117	5(05.	
GPA) The C	71.00		A. testo	and and	inv bon	al apple			
П	XX	107	3:1:1		С	7	35	CON	
Ш					В	8	32		
II					D	6	18		
П					Е	4	20	-0.2	0
П			2:1:1		Α	9	36		
П	XX	112	2:0:0		F	0	00		
П	XX	113	0:2:0		В	8	16		
Total			25 (23	*)		Total	157	=6.6	8
CGPA shall be calcu I	-				D	6	30	SGP = 50	
Ι	XX	104	0:1:1		С	7	14	·=6.22	
Π	XX	112	2:0:0		D	6	12	CGPA	
due of a	Total		al 9			Total	56	=33	
(b) CGPA Calculation of the Programme:An Illustrative Example									-
Semester		I	П	ш	IV	V	VI	VII	VI
and the second se	ester	20	20	24	24	25	24	20	18
SGPA		7.00	8.50	9.20	6.86	8.18	7.73	8.68	9.4
Grade Card	: Bas SPA, a	sed o	on the	175 secu	red lett	er gra	des, g	grade	lida
	II II II II IT IT IT II II II	II       XX         Total       Total         if the Student secures letter       CGPA shall be calculated as         I       XX         II       XX         II       XX         II       XX         II       XX         GPA       CGPA         GPA and CGPA, rade card indical	II       XX108         II       XX109         II       XX110         II       XX111         II       XX112         II       XX113         Total       Total         If the Student secures letter grades         CGPA shall be calculated as indicat         I       XX102         I       XX102         I       XX104         II       XX112         Total       Total         Coredits of the semester 20         SGPA       7.00         CGP4= (20×7.00+20×8.50+24×5)         Grade Card: Based colspan="2">GGPA and CGPA, a grande card indicating	IIXX1084:0:0IIXX1093:0:0IIXX1104:1:0IIXX1112:1:1IIXX1122:0:0IIXX1130:2:0Total25 (23)If the Student secures letter grades as detailCGPA shall be calculated as indicated below.IXX1023:2:0IXX102IXX1040:1:1IIXX1122:0:0Total9Coredition of thSemesterIIICredits of the semester202020SGPA7:008:50CGPA= $\frac{(20\times7.00+20\times8.50+24\times9.20+24\times4)}{(20\times7.00+20\times8.50+24\times9.20+24\times4)}$ Crade Card: Based on theGPA and CGPA, a grade cardrade card indicating the period	IIXX1084:0:0IIXX1093:0:0IIXX1104:1:0IIXX1112:1:1IIXX1122:0:0Total2:5 (23*)f the Student secures letter grades as detailed below.IXX1023:2:0IXX1023:2:0IXX1122:0:0IXX1122:0:0IXX1122:0:0IXX1122:0:0Total9CGPA calculation of the ProgrSemesterIIIIIXX1122:0:0Total9CGPA(b) CGPA Calculation of the ProgrSemesterIIIIIIXX1122:0:0Total9CGPA(b) CGPA Calculation of the ProgrSemesterIIIIIIXX1122:0:0Total9CGPA(b) CGPA Calculation of the ProgrSemesterIIIIIITotal9CGPA7:008:509:2024SGPA7:008:509:20175CradeCard:Based on the securCGPA and CGPA, a grade card for or rade card indicating the perform	IIXX1084:0:0BIIXX1093:0:0DIIXX1104:1:0EIIXX1112:1:1AIIXX1122:0:0FIIXX1130:2:0BTotal25 (23*)25 (23*)f the Student secures letter grades as detailed below after reap.CGPA shall be calculated as indicated below.IXX1023:2:0DIXX1122:0:0DIXX1122:0:0DTotal9	II         XX108         4:0:0         B         8           II         XX109         3:0:0         D         6           II         XX110         4:1:0         E         4           II         XX111         2:1:1         A         9           II         XX112         2:0:0         F         0           II         XX112         0:2:0         B         8           Total         25 (23*)         Total         Total           CGPA shall be calculated as indicated below.         I         XX102         3:2:0         D         6           I         XX102         3:2:0         D         6         6           I         XX112         2:0:0         D         6           I         XX112         2:0:0         D         6           I         XX112         2:0:0         D         6           I         Total         9         Total         V           Credits of the semester         20         20         24         24         25           SGPA         7.00         8:50         9.20         6.86         8.18           CGPA =		

80B 7.1	Conversion Formula for the conversion of CGPA into percentage is given below.
	Percentage of marks secured, "P=[CGPA Earned - 0.75] $\times$ 10" Illustration for a CGPA of 8.20: P = [CGPA Earned 8.20 - 0.75] $\times$ 10 = 74.5 %
80B 7.2	Class Equivalence:
na alerer M 13 tedy 2013 add. 14 ted tila: 14 ted e Tila: 16 ted	Subsequent to the conversion of final CGPA, after successful completion of the Programme, into percentage of marks (P), a graduating student is reckoned to have passed in (i) First Class with Distinction (FCD) if $P \ge 70\%$ (ii) First Class (FC) if $P \ge 60\%$ but $<70\%$ and (iii) Second Class (SC) if $P < 60\%$ .
8OB 8.0	Continuous Internal Evaluation, Semester End Evaluation and minimum standards
80B 8.1	Continuous Internal Evaluation Marks:
	(a) Except for Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration), Technical seminar and Project work phase -1, the CIE marks for all credit Courses, shall be 40.
en (da bas Tilan	(b) Minimum CIE marks for all theory Courses shall be 40 % of the marks prescribed for Continuous Internal Evaluation i.e., 16 marks.
d borreal A borreal A teach M teach	(c) Minimum CIE marks for Practical/Mini-project / Internship/ Technical Seminar/Project work – Phase 2 shall be 50 % of the maximum marks i.e., 20 marks.
noncest	(d) The CIE marks for Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration), Technical seminar and Project work phase -1 shall be 100.
inanos interes	(e) Minimum CIE marks for Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration) shall be 40 % of the marks prescribed for Continuous Internal Evaluation i.e., 40 marks.
l aut diffe en edi 70	(f) Minimum CIE marks for Project work – Phase 1 and Technical seminar shall be 50 % of the maximum marks i.e., 50 marks.
in and a second	(g) Minimum CIE marks for Additional Mathematics I and II, and the courses (Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering) to be completed by B.Sc. graduates under lateral entry shall be 40 % of the marks prescribed for Continuous Internal Evaluation i.e., 16 marks.
	ALME COLLEGE OF Engineering
	15311 KM Mysuru-Kanakapura-Bangalore Road

## **18 OB 8.2** Continuous Internal Evaluation Procedure: [To be read along with 18 OB 8.1 and 8.3]

#### (a) Theory Courses :

- (i) CIE Marks in each theory Course [including "Technical English I and II", "Constitution of India, Professional Ethics and Human Rights", "Environmental Studies", "Additional Mathematics I and II", and the courses (Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering) to be completed by B.Sc. graduates under lateral entry] shall be the sum of marks prescribed for tests and assignments. Marks prescribed for tests shall be 30 and that for assignments 10.
- (ii) The CIE marks awarded for tests in the theory Course/s shall be based on three tests generally conducted at the end of fifth, tenth and fifteenth week of each semester. Each test shall be conducted for a maximum of 50 marks and the final test marks shall be the average of three tests, proportionately reduced to a maximum of 30 marks.
- (iii) The remaining 10 marks shall be awarded based on the evaluation of assignments/unit tests/written quizzes that support to cover both lower and higher order thinking skills as per Bloom's Revised Taxonomy and Course/programme outcomes.
- (iv) Final marks awarded shall be the sum of 18OB 8.2 (a) (ii) and (iii) for a maximum of 40 marks.
- (v) The candidates shall write the tests, assignments/unit-tests/ written quizzes in Blue Books which shall be preserved by the Principal/ Head of the Department for at least six months after the announcement of University results and shall be made available for verification at the direction of the Registrar (Evaluation).
- (b) Drawing/Field work Courses :

the College of Engineering

- (i) The CIE marks awarded for I year Engineering Graphics Course shall be based on
- (a) Class work for 24 marks (sketching and Computer Aided Engineering Drawing).
- (b) Two Tests conducted in the same pattern as that of SEE for 16 marks (The marks secured Can be taken as best of the two tests).
- (ii) The CIE marks awarded for higher semester Drawings/ Design Drawings offered by various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40.

16

#### 18OB 8.2 (Continued)

(iii) The CIE marks awarded for field work (like Surveying Practice) shall be based on the evaluation of the associated field work and one test in the ratio 60:40.

#### (c) Practical Courses :

The CIE marks awarded in case of Practical, shall be based on the weekly evaluation of laboratory journals/ reports after the conduction of every experiment and one practical test in the ratio 60:40.

#### (d) Internship :

The CIE marks awarded for internship, shall be based on the evaluation of Internship Report, Presentation skill and Question and Answer session in the ratio 50:25:25.

#### (e) Technical Seminar :

The CIE marks awarded for Technical Seminar, shall be based on the evaluation of Seminar Report, Presentation skill and Question and Answer session in the ratio 50:25:25.

#### (f) Mini - Project :

The CIE marks awarded for Mini - Project, shall be based on the evaluation of Mini - Project Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25.The marks awarded for Mini - Project report shall be the same for all the batch mates.

(g) Main Project Work :

#### (i) Project Work Phase-1

The CIE marks awarded for project work phase -1, shall be based on the evaluation of project work phase -1 Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25.The marks awarded for the Project report shall be the same for all the batch mates.

#### (ii) Project Work Phase - 2

The CIE marks awarded for project work phase -2, shall be based on the evaluation of project work phase -2 Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25.The marks awarded for the Project report shall be the same for all the batch mates.

- (h) Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration)
- (i) CIE Marks in Vyavaharika Kannada (Kannada for communication)/Aadalitha Kannada (Kannada for Administration) shall be the sum of marks prescribed for tests and assignments. Marks prescribed for tests shall be 75 and that for assignments be 25.

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## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

				ER B.E./B.Te	No. In Lot 19	Т	eachin urs /W			Exami	nation		
		urse and Irse Code	Course Title	Teaching Department	Paper Setting Board	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
			01.1 H			L	T	P					
1	BSC	18MAT11	Calculus and Linear Algebra	Mathematics	Maths	3	2	-	03	40	60	100	4
2	BSC	18PHY12	Engineering Physics	Physics	Physics	3	2		03	40	60	100	4
3	ESC	18ELE13	Basic Electrical Engineering	E and E Engineering	E and E Engineering	2	2	- 2	03	40	60	100	3
4	ESC	18CIV14	Elements of Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	2	2		03	40	60	100	3
5	ESC	18EGDL15	Engineering Graphics	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	2	-	2	03	40	60	100	3
6	BSC	18PHYL16	Engineering Physics Laboratory	Physics	Physics			2	03	40	60	100	1
7	ESC	18ELEL17	Basic Electrical Engineering Laboratory	E and E Engineering	E and E Engineering			2	03	40	60	100	1
8	HSMC	18EGH18	Technical English-I	Humanities	Humanities		2		03	40	60	100	1
				A	TOTAL	12	10 cience	06	24	320	480	800	20

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

					0.0	Teaching Hours /Week			Examination				
SI. No		Colorbus and Linear	Teaching Department	Paper Setting Board	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits	
1	BSC	18MAT11	Calculus and Linear Algebra	Mathematics	Mathematics	L 3	<u>т</u> 2	P	03	40	60	100	4
2	BSC	18CHE12	Engineering Chemistry	Chemistry	Chemistry	3	2		03	40	60	100	4
3	ESC	18CPS13	C Programming for Problem Solving	Computer Science and Engineering	Computer Science and Engineering	2	2		03	40	60	100	3
4	ESC	18ELN14	Basic Electronics	ECE/E and I/ TC	E and C Engineering	2	2		03	40	60	100	3
5	ESC	18ME15	Elements of Mechanical Engineering	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	2	2	-	03	40	60	100	3
6	BSC	18CHEL16	Engineering Chemistry Laboratory	Chemistry	Chemistry			2	03	40	60	100	1
7	ESC	18CPL17	C Programming Laboratory	Computer Science and Engineering	Computer Science and Engineering	-		2	03	40	60	100	1
8	HSMC	18EGH18	Technical English-I	Humanities	Humanities		2		03	40	0.60	100	1
_		Onten	rses, ESC: Engineering Sc	LOBE SAL	TOTAL	12	12	04	24	320	480	800	20

33

Mellahalli Mysuru-570 028

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19

Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

					STER D.E./D.	Paper Setting Board		eachir urs /W	ıg		Exam	ination		
SI. No					Course Title Burger		Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	fotal Marks	Credits
				and the second	and the state of the	and the second second	L	T	P	9	0	S	To	1
1	BSC	18MA	T21	Advanced Calculus and Numerical Methods	Mathematics	Mathematics	3	2		03	40	60	100	4
2	BSC	18PH	Y22	Engineering Physics	Physics	Physics	3	2		03	40	60	100	4
3	ESC	18ELE	E23	Basic Electrical Engineering	E and E Engineering	E and E Engineering	2	2		03	40	60	100	3
4	ESC	18CIV	/24	Elements of Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	2	2		03	40	60	100	3
5	ESC	18EGI	DL25	Engineering Graphics	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	2		2	03	40	60	100	3
6	BSC	18PHY	YL26	Engineering Physics Laboratory	Physics	Physics			2	03	40	60	100	1
7	ESC	18ELE	EL27	Basic Electrical Engineering Laboratory	E and E Engineering	E and E Engineering			2	03	40	60	100	1
8	HSMC	18EGH	128	Technical English- II	Humanities	Humanities		2		03	40	60	100	1
						TOTAL	12	10	06	24	320	480	800	20

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

Ę.			II SEMESTE		Rental st	T	eachir urs /W	g	Examination				
SL. No		ourse and urse Code	Course Title	Teaching Department	Paper Setting Board	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
	S. A. C.	Contraction of the		A STATE OF STATE OF STATE		L	T	P	Q	0	s	I	- The second
1	BSC	18MAT21	Advanced Calculus and Numerical Methods	Mathematics	Maths	3	2		03	40	60	100	4
2	BSC	18CHE22	Engineering Chemistry	Chemistry	Chemistry	3	2	-	03	40	60	100	4
3	ESC	18CPS23	C Programming for Problem Solving	Computer Science and Engineering	Computer Science and Engineering	2	2	in Hills	03	40	60	100	3
4	ESC	18ELN24	Basic Electronics	ECE/E and I/ TC	E and C Engineering	2	2	-	03	40	60	100	3
5	ESC	18ME25	Elements of Mechanical Engineering	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	2	2	100	03	40	60	100	3
6	BSC	18CHEL26	Engineering Chemistry Laboratory	Chemistry	Chemistry			2	03	40	60	100	1
7	ESC	18CPL27	C Programming Laboratory	Computer Science and Engineering	Computer Science and Engineering	-	-	2	03	40	60	100	1
8	HSMC	18EGH28	Technical English-II	Humanities	Humanities		2	-	03	40	60	100	1
					TOTAL	12	12	04	24	320	480	800	20

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## Syllabus copy of 2015-16 Scheme

Syllabus of I & II Semesters B.E./B.Tech. Common to all Engineering Branches (with effect from 2015-16)

> ATME College of Engineering Mellahalli Circle Mysore-Bannur Road MYSORE-570008 Tel/Fax:0821-2593335

> > PRINCIPAL ATME College of Engineering 13#YKM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

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Visvesvaraya Technological University, Belgavi ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ

Visiesualaya Technological University

Web: www.vtu.ac.in

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- 15OB 10.2 Project work at 8th semester shall be completed batch wise, each batch consisting of minimum of two students and maximum four students.
- Viva-voce examination in project work shall be conducted batch-15OB 10.3 wise.

#### 15OB 11 **COMPUTATION OF SGPA AND CGPA**

- i. The VTU adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated every semester, except the first semester.
- ii. The grading system is with the following letter grades as given below:

#### **Grades and Grade Points**

Level	Out- standing	Excel lent	Very Good	Good	Above Average	Average	Poor	Fail
Letter Grade	0	S	A	В	С	D	Е	F
Grade Points	10	9	8	7	6	5	. 4	00

iii. A student obtaining Grade "F" shall be considered failed and will be required to reappear in the examination.

Such students after passing the failed subject in subsequent examination/s will be awarded with "E" grade irrespective of marks he/she scores in the subsequent examination/s.

Number of attempts taken to clear a subject/s shall be shown in the transcripts.

#### **Grade Points Scale**

#### **Computation of SGPA and CGPA**

Level	Out- standing	Excelle nt	Very Good	Good	Above Average	Average	Poor	Fail
Letter Grade	0	S	A	В	С	D	E	F
Grade Points	10	9	8	7	6	5	4	00
Score (Marks) Range (%)	≥ 90	<90 ≥ 80	< 80 ≥70	< 70 ≥60	< 60 ≥50	< 50 ≥45	<45 ≥40	< 40

The following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

#### **SGPA** (Si) = $\sum$ (Ci x Gi) / $\sum$ Ci

where Ci is the number of credits of the i<sup>th</sup> course and Gi is the grade point scored by the student in the i<sup>th</sup> course.

ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

 $CGPA = \sum (Ci \times Si) / \sum Ci$ 

where Si is the SGPA of the i<sup>th</sup> semester and Ci is the total number of credits in that semester.

iii. The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.

ATME College of Engineering

Mellahalli Mysuru-570 028

## Illustration for Computation of SGPA and CGPA

#### **Computation of SGPA**

#### Illustration No.1

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 1	4	А	8	4x8 = 32
Course 2	4	С	6	4x6 = 24
Course 3	4	В	7	4x7 = 28
Course 4	3	0	10	3x10=30
Course 5	3	D	4	3x4 = 12
Course 6	3	С	6	$3\mathbf{x}6 = 18$
Course 7	2	S	9	2x9 = 18
Course 8	2	С	6 .	2x6 = 12
Statist.	25	ing the pro-	Neoferia Per	174

Thus, SGPA= 174/25=6.96

#### **Illustration No.2**

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 1	4	A	8	4x8 = 32
Course 2	4	С	6	4x6 = 24
Course 3	4	В	7	4x7 = 28
Course 4	3	0	10	3x10=30
Course 5	3	F	0	3x0 = 00
Course 6	3	С	6	3x6 = 18
Course 7	2	S	9	2x9 = 18
Course 8	2	С	6	2x6 = 12
	25			162

Thus, SGPA= 162/25=6.48

#### Illustration No.2(a)

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 5	3	Е	4	3x4 = 12
nau Sarra	25	( Itali, 7.90) ekylenniti	tina Af	Ci (First Attempt)162 + Ci (subsequent attempt) 12= 174

Thus, SGPA= 174/25=6.96

and at a second interal and 18

#### **Illustration No.3**

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 1	4	A	8	4x8 = 32
Course 2	4	C	6	4x6 = 24
Course 3	4	В	7	4x7 = 28
Course 4	3	0	10	3x10=30
Course 5	3	S	9	3x9 = 27
Course 6	3	С	6	3x6 =18
Course 7	2	S	9	2x9 = 18
Course 8	2	С	6	2x6 =12
	25	and the second	and beauty	189

Thus, SGPA= 189/25=7.56

## CGPA= $\frac{25x6.96+25x7.56}{50} = 7.26$

#### **CGPA** after Final Semester

Sem-1	Sem-2	Sem-3	Sem-4	Sem-5	Sem-6	Sem-7	Sem-8
					Credit:		Credit:
24	24	27	27	24	24	24	26
SGPA:	SGPA:	SGPA:	SGPA:	SGPA:	SGPA:	SGPA:	SGPA:
7	8.5	9.2	6.86	8.18	7.73	8.68	9.4

Thus, **CGPA**=  $\frac{24x7 + 24x8.5 + 27x9.2 + 27x6.86 + 24x8.18 + 24x7.73 + 24x8.68 + 26x9.4}{200} = 8.2$ 

**Transcript (Format):** Based on the above recommendations on Letter grades, grade points, SGPA and CCPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters may be issued.

- 15OB 12 CONVERSION OF GRADES INTO PERCENTAGE: Conversion formula for the conversion of GPA into Percentage is [CGPA Earned - 0.75] x 10= Percentage of marks scored.
   Illustration: [CGPA Earned 8.2 - 0.75] x 10 = 74.5%
- 150B 13 AWARD OF PRIZES, MEDALS & RANKS
- 15OB 13.1 For the award of Prizes and Medals, the conditions stipulated by the Donor may be considered subject to the provisions of the statutes framed by the University for such awards.

19

ATME College of Engineering 13mKM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

#### **I SEMESTER B.E./B.TECH.**

_								PHYS	SICS GROUI	
			188.2			Theory	Exam	ination Ma	irks	Credits
SI. No.	Subject Code	Subject		Teaching Department	Board	/Lab/ Drawing (Hrs/ Week)	Th./Pr.	I.A.	Total	
1	15MAT11	Engineering Maths-I	BS	Maths	Basic Sc.	4 (T)	80	20	100	4
2	15PHY12	Engineering Physics	BS	Physics	Basic Sc.	4 (T)	80	20	100	4
3	15CIV13	Elements of Civil Engg. & Mechanics	ES	Civil Engg.	Civil Engg.	4 (T)	80	20	100	4
4	15EME14	Elements of Mechanical Engg.	ES	Mech. Engg.	Mech. Engg.	4 (T)	80	20	100	4
5	15ELE15	Basic Electrical Engg.	ES	E & E	E&E	4 (T)	80	20	100	4
6	15WSL16	Workshop Practice	ES	Mech., Auto, IP, IEM, Mfg. Engg.	Mech. Engg.	3(2 hrs lab+ 1 hr instruction )	80	20	100	2
7	15PHYL17	Engg. Physics Lab	BS	Physics	Basic Sc.	3(2 hrs lab+ 1 hr instruction)	80	20	100	2
8	15CPH18	Constitution of India, Professional Ethics and Human Rights (CPH)	MNC	Humanities		2 (Tutorial)	40	10	50	-
9		Language (Kan.)	Mandatory Learning	Humanities		1 (T)				-
	12.20					29	600	150	750	24

Note: The Subjects Kannada and English are Audit Courses

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

SEN	ESTER B.E./	D.IDCH.				transie the	PHY	<b>YSICS GRO</b>	UP	
				77 L		Theory	Exa	mination Ma	irks	Credits
SI. No.	Subject Code	Subject		Teaching Department	Board	/Lab/ Drawing (Hrs/ Week)	Th./Pr.	I.A.	Total	
1	15MAT21	Engineering Maths-II	BS	Maths	Basic Sc.	4 (T)	80	20	100	4
2	15PHY22	Engineering Physics	BS	Physics	Basic Sc.	4 (T)	80	20	100	4
3	15CIV23	Elements of Civil Engg. & Mechanics	ES	Civil Engg.	Civil Engg.	4 (T)	80	20	100	4
4	15EME24	Elements of Mechanical Engg.	ES	Mech. Engg.	Mech. Engg.	4 (T)	80	20	100	4
5	15ELE25	Basic Electrical Engg.	ES	E & E	E & E	4 (T)	80	20	100	4
6	15WSL26	Workshop Practice	ES	Mech., Auto, IP, IEM, Mfg. Engg.	Mech. Engg.	3(2 hrs lab+ 1 hr instruction)	80	20	100	2
7	15PHYL27	Engg. Physics Lab	BS	Physics	Basic Sc.	3(2 hrs lab+ 1 hr instruction)	80	20	100	2
8	15CPH28	Constitution of India, Professional Ethics and Human Rights	MNC	Humanities		2 (Tutorial)	40	10	50	-
9		Language (Kan.)	Mandatory Learning	Humanities	DTEY	1 (T)				f Engineeri
						29	600	KM 100YSU	IN-KOOdka	pura-Bangalore

Mellahalli Mysuru-570 028

22

23

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

#### **I SEMESTER B.E./B.TECH.**

					СН	EMISTRY GROU	P		Mars	-
SI.	Subject		1986	Teaching		Theory /Lab/	Exam	ination Ma	rks	Credits
No.	Code	Subject		Department	Board	Drawing (Hrs/ Week)	Th./Pr.	I.A.	Total	1
1	15MAT11	Engineering Maths-I	BS	Maths	Basic Sc.	4 (T)	80	20	100	4
2	15CHE12	Engineering Chemistry	BS	Chemistry	Basic Sc.	4 (T)	80	20	100	4
3	15PCD13	Programming in C & Data Structures	ES	Any Engineering Department	CSE	4 (T)	80	20	100	4
. 4	15CED14	Computer Aided Engineering Drawing	ES	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	6 (2I+ 4P)	80	20	100	4
5	15ELN15	Basic Electronics	ES	E & C / E & E / TC / IT	E & C	4 (T)	80	20	100	4
6	15CPL16	Computer Programming Lab	ES	Any Engineering Department	CSE	3(2 hrs lab+ 1 hr Tutorial )	80	20	100	2
7	15CHEL17	Engg. Chemistry Lab	BS	Chemistry	Basic Sci.	3(2 hrs lab+ 1 hr Tutorial )	80	20	100	2
8	15CIV18	Environmental Studies	MNC -	Civil / Environmental	Civil	2 (Tutorial)	40	10	50	-
9		Language (Eng.)	Mandatory Learning	Humanities	TACEN'S	1 (T)	oie -	•	-	-
			CONTRACTOR	S CIGODIS	Total	31	600	150	750	24

Note: The Subjects Kannada and English are Audit Courses

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

#### **II SEMESTER B.E./B.TECH.**

**CHEMISTRY GROUP** Theory /Lab/ Credits **Examination Marks** SI. Subject Teaching Subject Board Drawing (Hrs/ No. Code Department Th./Pr. Total LA. Week) 1 15MAT21 Engineering Maths-II BS Maths Basic Sc. 4 (T) 80 20 100 4 2 15CHE22 Engineering Chemistry BS Chemistry Basic Sc. 4 (T) 80 20 100 4 3 15PCD23 CSE Programming in C & Data ES Any 4 (T) 80 20 100 4 Structures Engineering Department 4 15CED24 Computer Aided Engineering ES Mech./IP/Auto/ Mech. 6 (2I+4P) 80 20 100 4 Engg. Drawing Mfg.Engg./ 25 IEM 5 15ELN25 **Basic Electronics** ES E&C/E&E E&C 4 (T) 80 20 100 4 /TC/IT 6 15CPL26 Computer Programming Lab ES Any CSE 3(2 hrs lab+1 80 20 100 2 Engineering hr Tutorial) Department 7 3(2 hrs lab+1 15CHEL27 Engg. Chemistry Lab BS Basic Sc. 20 100 2 Chemistry 80 hr Tutorial) . 8 15CIV28 **Environmental Studies** MNC Civil / Civil 2 (Tutorial) 40 10 50 Environmental - PRINCIP 9 Language (Eng.) Mandatory Humanities 1 (T) 0 Learning TME College of Engineering Total 31 KM MySOru-Kandkapura-Bangalore Road

Mellahalli Mysuru-570 028

Note: The Subjects Kannada and English are Audit Courses

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

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32

## Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

			I SEMEST	ER B.E./B.Te	ch (PHYSIC	S GRO	DUP)						
				t	5		eachin urs /V			Exam	ination		
SL No		urse and 18MAT11 18PHY12 18ELE13 18CIV14 18EGDL15 18PHYL16	Course Title	Teaching Department	Paper Setting Board	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
	de la constante de	1				L	T	P	-			-	
1	BSC	18MAT11	Calculus and Linear Algebra	Mathematics	Maths	3	2		03	40	60	100	4
2	BSC	18PHY12	Engineering Physics	Physics	Physics	3	2		03	40	60	100	4
3	ESC	18ELE13	Basic Electrical Engineering	E and E Engineering	E and E Engineering	2	2		03	40	60	100	3
4	ESC	18CIV14	Elements of Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	2	2		03	40	60	100	3
5	ESC	18EGDL15	Engineering Graphics	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	2		2	03	40	60	100	3
6	BSC	18PHYL16	Engineering Physics Laboratory	Physics	Physics			2	03	40	60	100	1
7	ESC	18ELEL17	Basic Electrical Engineering Laboratory	E and E Engineering	E and E Engineering			2	03	40	60	100	1
8	HSMC	18EGH18	Technical English-l	Humanities	Humanities		2		03	40	60	100	1
					TOTAL	12	10	06	24	320	480	800	20
Note	e: BSC: Bas		rses, ESC: Engineering Scie			Social Sc	ience	and Ma	nageme	nt Cour	ses.		
Defi	nition of C	redit: 2 hou	r Lecture (L) per week per se r Tutorial (T) per week per s r Practical/Laboratory/Draw	emester =1 Credit	t	Credit.							

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 U28

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

### Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

					:h (CHEMIST 활	1	feachin ours /V	ng		Exam	ination		
SI. No		ourse and urse Code	Course Title	Teaching Department	Paper Setting Board	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Fotal Marks	Credits
						L	T	P	-			F	
1	BSC	18MAT11	Calculus and Linear Algebra	Mathematics	Mathematics	3	2		03	40	60	100	4
2	BSC	18CHE12	Engineering Chemistry	Chemistry	Chemistry	3	2		03	40	60	100	4
3	ESC	18CPS13	C Programming for Problem Solving	Computer Science and Engineering	Computer Science and Engineering	2	2		03	40	60	100	3
4	ESC	18ELN14	Basic Electronics	ECE/E and I/ TC	E and C Engineering	2	2		03	40	60	100	3
5	ESC	18ME15	Elements of Mechanical Engineering	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	2	2		03	40	60	100	3
6	BSC	18CHEL16	Engineering Chemistry Laboratory	Chemistry	Chemistry			2	03	40	60	100	1
7	ESC	18CPL17	C Programming Laboratory	Computer Science and Engineering	Computer Science and Engineering			2	03	40	60	100	1
8	HSMC	18EGH18	Technical English-I	Humanities	Humanities		2		03	40	60	100	1
	DOG F				TOTAL	12	12	04	24	320	490	800	20
Note	: BSC: Bas	ic Science Cour	ses, ESC: Engineering Sci	ence Courses, HS	MC: Humanity, S	Social Sc	ience	and Mar	nagemer	it Cour	ses.		
Defi	nition of C	redit: 2 hour	r Lecture (L) per week per r Tutorial (T) per week per r Practical/Laboratory/Draw	semester =1 Crea	lit	Credit.							



33

### **Programme: CIVIL ENGINEERING**

### **III SEMESTER**

					Teachin	g Hours /	Week		Exam	ination		
Sl. No		irse and rse Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	Т	Р	I		S I	H	
1	BSC	18MAT31	Transform Calculus, Fourier Series and Numerical Techniques	Mathematics	2	2		03	40	60	100	3
2	PCC	18CV32	Strength of Materials	Civil Engg.	3	2		03	40	60	100	4
3	PCC	18CV33	Fluid Mechanics	Civil Engg.	3	0		03	40	60	100	3
4	PCC	18CV34	Building Materials and Construction	Civil Engg.	3	0		03	40	60	100	3
5	PCC	18CV35	Basic Surveying	Civil Engg.	3	0		03	40	60	100	3
6	PCC	18CV36	Engineering Geology	Geology	3	0		03	40	60	100	3
7	PCC	18CVL37	Computer Aided Building Planning & Drawing	Civil Engg.		2	2	03	40	60	100	2
8	PCC	18CVL38	Building Materials Testing Laboratory	Civil Engg.		2	2	03	40	60	100	2
		18KVK39	Vyavaharika Kannada (Kannada for communication)/									
			OR			2			100			
9	HSMC	18KAK39	Aadalitha Kannada (Kannada for Administration)	HSMC							100	1
			OR	nome							100	1
		18CPC39	Constitution of India, Professional Ethics and Cyber		1			02	40	60		
			Law			mination i	is by obje	ective typ	e questio	ons		
					17	08		24	420	480		
				TOTAL	OR	OR	04	OR	OR	OR	900	24
					18	10		26	360	540		
ter DEC	Denia C.	DCC. D										
KVK30	Vyayaharil	Rence, PCC: P	rofessional Core, HSMC: Humanity and Social Science,	NCMC: Non-cro	edit mano	latory cou	irse.					
iministr:	v yavallalli ation) is for	students who	annada for communication) is for non-Kannada speakin speak, read and write Kannada.	g, reading and w	vriting stu	dents and	18KAK	39 Aadal	itha Kan	inada (K	annada fo	r
******	41011) 13 101			1		6 17						
10	NCMC	18MATDIP:	e prescribed to lateral entry Diploma holders a 31 Additional Mathematics - I	amitted to III								
				Mathematics	02	01		03	40	60	100	0
mester o	of BE/B T	ech program	rses Additional Mathematics I and II prescribed for III s, shall attend the classes during the respective seme	and IV semeste	rs respect	tively, to	the later	al entry ]	Diploma	holders	admitted	to
inester c		con programs	ails to register for the said course/fails to secure the min	sters to comple	ete all the	e formali	ties of th	ne course	and an	pear for	the Uni	versi

ATME College of Engineering 13th KM Mysuru-Kanak abura-Bangalor Road Mellahalli Mysuru-570 (128

## Programme: CIVIL ENGINEERING

11 01	EMESTI	ER										
					Teach	ing Hours /	Week		Exam	ination		
SI. No		ourse and ourse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Fotal Marks	Credits
		1			L	Т	Р		0	S.	1 I	
1	BSC	18MAT41	Complex Analysis, Probability And Statistical Methods	Mathematics	2	2		03	40	60	100	3
	PCC	18CV42	Analysis of Determinate Structures	Civil Engg.	3	2		03	40	60	100	4
	PCC	18CV43	Applied Hydraulics	Civil Engg.	3	0		03	40	60	100	3
	PCC	18CV44	Concrete Technology	Civil Engg.	3	0		03	40	60	100	3
	PCC	18CV45	Advanced Surveying	Civil Engg.	3	0		03	40	60	100	3
	PCC	18CV46	Water Supply & Treatment Engineering	Civil Engg.	3	0		03	40	60	100	3
	PCC	18CVL47	Engineering Geology Laboratory	Geology		2	2	03	40	60	100	2
	PCC	18CVL48	Fluid Mechanics and Hydraulic Machines Laboratory	Civil Engg.		2	2	03	40	60	100	2
9		18KVK39/49	Vyavaharika Kannada (Kannada for Communication)/								100	
			OR			2			100			
	HSMC	18KAK39/49	Aadalitha Kannada (Kannada for Administration)	НЅМС								
			OR	- nsmc							100	1
		18CPC39/49	Constitution of India, Professional Ethics and Cyber Law	] [	1			02	40	60	1	
			Constitution of main, Professional Ennes and Cyber Law		E	Examination	is by obje	ective type	questions		1	
				TOTAL	17	08		24	420	480		
					OR	OR	04	OR	OR	OR	900	24
					18	10		26	360	540	1	
Note: I	C: Dagia	Saianaa DCC: Dr	efercional Care HGMC H								Via	
SKVK	$30/40V_{V21}$	science, FCC. Pr	ofessional Core, HSMC: Humanity and Social Science, NCMC	Non-credit manda	tory course.						A CONTRACTOR	
student	s who speal	k read and write I	(Kannada for communication) is for non-Kannada speaking, re- Kannada.	ading and writing st	tudents and 1	18KAK39/4	9Aadalith	a Kannada	(Kannada	for Admin	istration) is	for no
-uuonit.	s who spea	R, read and write I	Course proceedia lateral ante Di la lateral							- Ileal	of Eng	11CU.
10	NCMC	18MATDIP41	Course prescribed to lateral entry Diploma holder Additional Mathematics - II	rs admitted to 11	l semester		ering pro		ATME	Colleg		19.028
	mandatory	non - credit cour	Additional Mathematics - II	Mathematics	02	01		03	APKM	MARRO WAR	1001-5	( gre
rogran	ns shall att	end the classes du	ses Additional Mathematics I and II prescribed for III and IV	semesters respectiv	ely, to the 1	lateral entry	Diploma	holders add	mitted to	III semeste	r of BE/B.	Tech
- Bitti	ino, ontan att	end the classes du	and the respective semesters in complete all the formalities of	the course and anne	and the the li	maxima day		T		0 11		
emeste	er/s to appea	ar for SEE.	40 % of the prescribed CIE marks, he/she shall be deemed to	have secured F grad	ae. In such a	a case, the s	students ha	ve to fulfil	l the requi	rements di	uring subse	quent

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Choice Based Credit System (CBCS) AND Outcome Based Education (OBE) (Effective from the academic year 2018 – 19)

					Teaching	g Hours	Week		Exam	ination		
SI. No		rse and rse Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
		1			L	Т	Р					
1	BSC	18MAT31	Transform Calculus, Fourier Series And Numerical Techniques	Mathematics	2	2		03	40	60	100	3
2	PCC	18CS32	Data Structures and Applications	CS / IS	3	2		03	40	60	100	4
3	PCC	18CS33	Analog and Digital Electronics	CS / IS	3	0		03	40	60	100	3
4	PCC	18CS34	Computer Organization	CS / IS	3	0		03	40	60	100	3
5	PCC	18CS35	Software Engineering	CS / IS	3	0		03	40	60	100	
6	PCC	18CS36	Discrete Mathematical Structures	CS / IS	3	0		03	40	60	100	
7	PCC	18CSL37	Analog and Digital Electronics Laboratory	CS / IS		2	2	03	40	60	100	2
8	PCC	18CSL38	Data Structures Laboratory	CS / IS		2	2	03	40	60	100	2
9	HSMC	18KVK39 18KAK39	Vyavaharika Kannada (Kannada for communication)/ Aadalitha Kannada (Kannada for Administration)	HSMC		2			100		100	1
		OR	OR	10.10							100	
		18CPC39	Constitution of India, Professional Ethics and Cyber Law		1			02	40	60		
			Luites and Cyber Law				s by obje					
				TOTAL	17	08		24	420	480		
				IUIAL	OR	OR	04	OR	OR	OR	900	2
					18	10		26	360	540		

**18KVK39** Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and **18KAK39** Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.

## Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs

 10
 NCMC
 18MATDIP31
 Additional Mathematics - I
 Mathematics
 02
 01
 - 03
 40
 60
 100
 0

 (a)The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/ fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the students have to fulfill the requirements during subsequent semester/s to appear for SEE.

(b) These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE Activity Points to be earned by students admitted to BE/B.Tech/B. Plan day college programme (For more details refer to Chapter 6,AICTE Activity Point Programme, Model Internship Guidelines): Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Programme. Students transferred from other Universities to fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, minimum hours' requirement should be fulfilled. Activity Points (non-credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression. In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

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#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Choice Based Credit System (CBCS) AND Outcome Based Education (OBE) (Effective from the academic year 2018 – 19)

		2			Teaching	Hours /	Week		Exami	nation		
SI. No		rse and se Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	Т	Р					
1	BSC	18MAT41	Complex Analysis, Probability and Statistical Methods	Mathematics	2	2		03	40	60	100	3
2	PCC	18CS42	Design and Analysis of Algorithms	CS / IS	3	2		03	40	60	100	4
3	PCC	18CS43	Operating Systems	CS / IS	3	0		03	40	60	100	3
4	PCC	18SC44	Microcontroller and Embedded Systems	CS / IS	3	0		03	40	60	100	3
5	PCC	18CS45	Object Oriented Concepts	CS / IS	3	0		03	40	60	100	3
6	PCC	18CS46	Data Communication	CS / IS	3	0		03	40	60	100	3
7	PCC	18CSL47	Design and Analysis of Algorithm Laboratory	CS / IS		2	2	03	40	60	100	2
8	PCC	18CSL48	Microcontroller and Embedded Systems Laboratory	CS / IS		2	2	03	40	60	100	2
		18KVK49	Vyavaharika Kannada (Kannada for communication)/			2			100			
9	HSMC	18KAK49	Aadalitha Kannada (Kannada for Administration)	HSMC		-			100		100	1
		OR	OR									
		18CPC39	Constitution of India, Professional Ethics and Cyber Law		l Exam		s by obj	02 ective ty	40	60		
			Eulles and Cyber Law		17	08		24	420	480		
				TOTAL	OR	OR	04	OR	OR	OR	900	24
					18	10	1	26	360	540	,,,,,	

Note: BSC: Basic Science, PCC: Professional Core, HSMC: Humanity and Social Science, NCMC: Non-credit mandatory course 18KVK49 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK49 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.

Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs

 $\frac{10 \text{ NCMC}}{18\text{MATDIP41}} = \frac{10 \text{ Additional Mathematics - II}}{10 \text{ Mathematics}} = \frac{10 \text{ Mathematics}}{10 \text{ Mathematics}} = \frac{10 \text{ Mathemat$ 

(b) These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

ATME College of Engineering 13th-KM Mysuru-Kanakapura-Bangalore Roart Meilahalli Mysuru-57() 028

D			Scheme of Teaching and J Outcome Based Education (OBE) and Ch (Effective from the acade	oice Based	Credit	System (	(CBCS)					
Frog	gramme:	B.E.: Electronics d	k Communication Engineering III SEMES									
	1		III SEMES		Teach	ing Hour	e/Week		From	Inchion		-
SI. No		Course and Course Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	Т	Р		0	S	F	
1	BSC	18MAT31	Transform Calculus, Fourier Series and Numerical Techniques	Mathe matics	2	2		03	40	60	100	T
2	PCC	18EC32	Network Theory		3	2		03	40	60	100	+
3	PCC	18EC33	Electronic Devices		3	0		03	40	60	100	+
4	PCC	18EC34	Digital System Design		3	0		03	40	60	100	
5	PCC	18EC35	Computer Organization & Architecture		3	0		03	40	60	100	$\vdash$
6	PCC	18EC36	Power Electronics & Instrumentation		3	0		03	40	60	100	$\vdash$
7	PCC	18ECL37	Electronic Devices & Instrumentation Laboratory			2	2	03	40	60	100	
8	PCC	18ECL38	Digital System Design Laboratory			2	2	03	40	60	100	+
		18KVK39/49	Vyavaharika Kannada (Kannada for Communication)/			2			100		1.50	
	AC	18KAK39/49	Aadalitha Kannada (Kannada for Administration)		-	2			100			
9	HSMC		OR	HSMC							100	
	-	18CPC39/49	Constitution of India, Professional Ethics and Cyber Law		1			02	40	60		
			LUT				y objectiv					
				TOTAL	Examination is by object1710TOTALOR04		24	420	480			
				TOTAL		04	OR	OR	OR	900	2	
					18	08		26	360	540		1

ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

			VISVESVARAYA TECHNOLOGIC Scheme of Teaching and E		,	LAGAV	1					
			Outcome Based Education (OBE) and C			tem (CB	CS)					
			(Effective from the acade			(02	00)					
Prog	ramme:	B.E: Electronics	& Communication Engineering	Jean								
1105	, uniner	Didi Direttomes	IV SEMES	TER								
					Teachin	g Hours	/Week		Exami	ination		Τ
SI. N o		Course and ourse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	Т	Р	9	5	S	T	
1	BSC	18MAT41	Complex Analysis, Probability and Statistical Methods	Mathe matics	2	2		03	40	60	100	1
2	PCC	18EC42	Analog Circuits		3	2		03	40	60	100	4
3	PCC	18EC43	Control Systems		3	0		03	40	60	100	3
4	PCC	18EC44	Engineering Statistics & Linear Algebra		3	0		03	40	60	100	3
5	PCC	18EC45	Signals & Systems		3	0		03	40	60	100	3
6	PCC	18EC46	Microcontroller		3	0		03	40	60	100	3
7	PCC	18ECL47	Microcontroller Laboratory			2	2	03	40	60	100	2
8	PCC	18ECL48	Analog Circuits Laboratory			2	2	03	40	60	100	2
	С	18KVK39/49 18KAK39/49	Vyavaharika Kannada (Kannada for Communication) Aadalitha Kannada (Kannada for Administration)			2			100			
9	HSMC		OR	HSM C							100	1
	H	18CPC39/49	Constitution of India, Professional Ethics and Cyber Law		1 Ex:			02 ective typ	40 e question	60		
			A-1011		17	10		24	420	480		-
				TOTAL	OR	OR	04	OR	OR	OR	900	2
					18	08		26	360	540		1

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapula-Bangalore Road-Meilahalli Mysuru-570 028

					Teach /Week	ing Hou	rs		Exam	unation		
SI. No	1	Course and Course Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
			Transform Calculus, Fourier Series		L	Т	Р					ļ
1	BSC	18MAT31	and Numerical Techniques (Common to all Branches)	Mathematics	2	2		03	40	60	100	3
2	PCC	18EE32	Electric Circuit Analysis	EEE	3	2		03	40	60	100	4
3	PCC	18EE33	Transformers and Generators	EEE	3	0		03	40	60	100	3
4	PCC	18 EE 34	Analog Electronic Circuits	EEE	2	2		03	40	60	100	3
5	PCC	18 EE 35	Digital System Design	EEE	3	0		03	40	60	100	3
6	PCC	18 EE 36	Electrical and Electronic Measurements	EEE	3	0		03	40	60	100	3
7	PCC	18 EE L37	Electrical Machines Laboratory -1	EEE		2	2	03	40	60	100	2
8	PCC	18 EE L38	Electronics Laboratory	EEE		2	2	03	40	60	100	2
		18KVK39/49	Vyavaharika Kannada (Kannada for communication)/									
9	HSMC	18KAK39/49	Aadalitha Kannada (Kannada for Administration)	HSMC		2			100			
	Ŧ		OR	HBINE							100	1
		18CPC39	Constitution of India, Professional Ethics and Cyber Law		1			02	40	60		
			Sunds and Cyber Law		Exam	ination	is by obj					
				TOTAL	16 OD	10		24	420	480		
				TOTAL	OR 17	OR 12	04	OR	OR	OR	900	24
					1/	12		26	360	540		

## Note: BSC: Basic Science, PCC: Professional Core, HSMC: Humanity and Social Science, NCMC: Non-credit mandatory course.

18KVK39Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.

## Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs

 10
 NCMC
 18MATDIP31
 Additional Mathematics - I
 Mathematics
 02
 01
 - 03
 40
 60
 100
 0

 (a)The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech. programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the students have to fulfill the requirements during subsequent semester/s to appear for SEE.

(b)These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

# AICTE Activity Points to be earned by students admitted to BE/B. Tech/B. Plan day college programme (For more details refer to Chapter

## 6,AICTE Activity Point Programme, Model Internship Guidelines):

III CER (DOMES

Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through Artifie Activity Point Programme. Students transferred from other Universities to fifth semester are required to earn 50 Activity Points from the year of sentry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be spread over the years, anytime during the semester weekends and holidays, as per the fiking and convenience of the student

from the year of entry to the programme. However, minimum hours' requirement should be fulfilled. Activity Points (non-credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression.

In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points.

					Teachi	ng Hours	/Week		Exan	ination		
Sl. No		Course and Course code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Cundita
					L	Т	Р		U	S	To	
1	BSC	18MAT41	Complex analysis, probability and statistical methods	Mathematics	2	2		03	40	60	100	3
2	PCC	18 EE42	Power Generation and Economics	EEE	3	0		03	40	60	100	3
3	PCC	18 EE43	Transmission and Distribution	EEE	3	2			40			
4	PCC	18 EE44	Electric Motors	EEE	3	0			40	60		
5	PCC	18 EE45	Electromagnetic Field Theory	EEE	2	2			40	60		
6	PCC	18 EE46	Operational Amplifiers and Linear	EEE	3	0			40	60	100	
7	PCC	18 EEL47		EEE		2	2		40	60	100	2
8	PCC	18 EEL48	Op- amp and Linear ICs	EEE		2	2	03	40	60	100	2
		18KVK39/49	Vyavaharika Kannada (Kannada for communication)/									
9	HSMC	18KAK39/49	Aadalitha Kannada (Kannada for Administration)	HSMC		2			100			
	H		A main issue and DistributionEEE32 $03$ 406010044Electric MotorsEEE30 $03$ 406010035Electromagnetic Field TheoryEEE22 $03$ 406010036Operational Amplifiers and Linear ICsEEE30 $03$ 4060100347Electrical Machines Laboratory -2EEE22 $03$ 4060100248Op- amp and Linear ICs LaboratoryEEE22 $03$ 4060100239/49Vyavaharika Kannada (Kannada for communication)/EEE210010019/49Aadalitha Kannada (Kannada for Administration)Image: Second seco									
		18CPH49	Constitution of India, Professional		1					60		
			Ethics and Cyber Law	TOTAL	Exami	nation is	by obje	ctive ty 24				
				IOTAL	OR	OR	04	OR	420 OR	480 OR	900	24
				Г	17	12		26	360	540	500	24

((a)The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respective semesters to complete all the formalities of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the students have to fulfill the requirements during subsequent to VDE and the classes of the students have to fulfill the requirements during subsequent to VDE and the classes of the semester's to appear for SEE.

(b)These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



					Teach /Week	ing Hour	<b>`S</b>		Exam	ination		
SI. No		Course and Course Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
			Transform calculus, fourier series		L	Т	Р					
1	BSC	18MAT31	and Numerical techniques	Mathematics	2	2		03	40	60	100	3
2	PCC	18ME32	Mechanics of Materials		3	2		03	40	60	100	4
3	PCC	18ME33	Basic Thermodynamics		3	0		03	40	60	100	3
4	PCC	18ME34	Material Science		3	0		03	40	60	100	3
5	PCC	18ME35A or	Metal cutting and forming		2	0			40	60	100	3
_		18ME35B	Metal Casting and Welding	1	3	0		03				
6	PCC	18ME36A or	Computer Aided Machine Drawing/		1	4						
		18ME36B	Mechanical Measurements and Metrology		3	0		03	40	60	100	3
7	PCC	18MEL37A or	Material Testing lab									
		18MEL37B	Mechanical Measurements and Metrology lab			2	2	03	40	60	100	2
8	PCC	18MEL38A	Workshop and Machine Shop Practice (Consists of Fitting, and Machining)			2	2	03	40	60	100	2
		18MEL38B	Foundry, Forging and Welding lab									
		18KVK39/49	Vyavaharika Kannada (Kannada for communication)/									
9	HSMC	18KAK39/49	Aadalitha Kannada (Kannada for Administration)	HSMC		2			100		100	1
			OR									
		18CPC39	Constitution of India, Professional		1			02	40	60		
			Ethics and Cyber Law				is by obj	ective ty	pe ques	tions		
				chine Shop      2     2     03     40     60     100     2       of ning)      2     2     03     40     60     100     2       ada (Kannada for      2       100      100     1       ia, Professional     1       02     40     60     100     1								
				TOTAL			04				900	24
					19	14		26	360	540		

holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/ fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the students have to fulfill the requirements during subsequent semester/s to appear for SEE.

b) These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree. Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

> ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028

IV	SEMESTER
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					Teachi /Week	ing Hour	s		Exam	ination		
SI. No		Course and Course Code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	<b>Fotal Marks</b>	Credits
		1			L	Т	Р	-	0	8	f	
1	BSC	18MAT41	Mathematics	Mathematics	2	2		03	40	60	100	3
2	PCC	18ME42	Applied Thermodynamics		3	2		03	40	60	100	4
3	PCC	18ME43	Fluid Mechanics		3	0		03	40	60	100	3
4	PCC	18ME44	Kinematics of Machines		3	0		03	40	60	100	3
5	PCC	18ME45A	Metal cutting and forming		-				40	60	100	3
		18ME45B	Metal Casting and Welding	1	3	0		03		00	100	
6	PCC	18ME46A or	Computer Aided Machine Drawing/		1	4						
		18ME46B	Mechanical Measurements and Metrology		3	0		03	40	60	100	3
7	PCC	18MEL47A or	Material Testing lab									
		18MEL47B	Mechanical Measurements and Metrology lab			2	2	03	40	60	100	2
8	PCC	18MEL48A	Workshop and Machine Shop Practice (Consists of Fitting, and Machining)			2	2	03	40	60	100	2
		18MEL48B	Foundry, Forging and Welding lab									
		18KVK49/49	Vyavaharika Kannada (Kannada for communication)/									
9		18KAK49/49	Aadalitha Kannada (Kannada for Administration)	HSMC		2			100		100	1
	4C		OR									
	HSMC	18CPH49	Constitution of India, Professional		1			02	40	60		
	Ŧ	10011147	Ethics and Cyber Law		Exam	ination i	s by obj	ective ty	pe ques	tions		
					17	10		24	420	480		
				TOTAL	OR	OR	04	OR	OR	OR	900	24
					19	14		26	360	540		

18KVK39 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.

Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs

10NCMC18MATDIP31Additional Mathematics - IMathematics0201--0340601000(a) The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/ fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the student have to fulfill the requirements during subsequent semester/s to appear for SEE.

(b) These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangakore Road Mellahalli Mysurij-570 (128

## Programme: CIVIL ENGINEERING

					Teachir	ng Hours	/Week		Exan	nination		
51. No		ourse and urse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1		1			L	Т	Р	-	0	×2	E	
1	HSMC	18CV51	Construction Management & Entrepreneurship	Civil Engg.	2	2		03	40	60	100	3
2	PCC	18CV52	Analysis of Indeterminate Structures	Civil Engg.	3	2		03	40	60	100	
3	PCC	18CV53	Design of RC Structural Elements	Civil Engg.	3	2		03	40	60		4
4	PCC	18CV54	Basic Geotechnical Engineering	Civil Engg.	3			03	40	60	100	4
5	PCC	18CV55	Municipal Wastewater Engineering	Civil Engg.	3			03	40	60	100	3
6	PCC	18CV56	Highway Engineering	Civil Engg.	3			03	40		100	3
7	PCC	18CVL57	Surveying Practice	Civil Engg.		2	2	03	40	60	100	3
8	PCC	18CVL58	Concrete and Highway Materials Laboratory	Civil Engg.		2	2	03	40	60	100	2
9	HSMC	18CIV59	Environmental Studies	Civil/Environmental [Paper setting Board: Civil Engineering]	1			02	40	60 60	100	2
				TOTAL	18	10	04	26	360	540	900	25

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

ATME College' of Engineering 13th KM Mysuru-Kanakapura-Bangabre Road Meilahalli Mysuru-570 028

			VISVESVARAYA TEC C Scheme of Teac	<b>IVIL ENGINE</b>	ERING								
			Outcome Based Education(C	BE) and Cho	ice Base	d Credit	System (CBCS	5)					
			(Effective from	m the academ	nic year 2	2018 - 19	ງ້	, 					
VI SE	MESTER												
SI. No		rse and se code	Course Title	Teaching Department	Theory Lecture	Tutoria L	Practic al/ Drawin g	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits	
				De	L	Т	Р	Du li	CIE	SEE			
1	РСС	18CV61	Design of Steel Structural Elements	Civil Engg.	3	2		03	40	60	100	4	-
2	PCC	18CV62	Applied Geotechnical Engineering	Civil Engg.	3	2		03	40	60	100	4	1
3	PCC	18CV63	Hydrology and Irrigation Engineering	Civil Engg.	3	2		03	40	60	100	4	
4	PEC	18CV64X	Professional Elective -1	Civil Engg.	3			03	40	60	100	3	-
5	OEC	18CV65X	Open Elective -A	Civil Engg.	3			03	40	60	100	3	
6	PCC	18CVL66	Software Application Laboratory	Civil Engg.		2	2	03	40	60	100	2	
7	PCC	18CVL67	Environmental Engineering Laboratory	Civil		2	2	03	40	60	100	2	Xm
8	EP	18CVEP68	Extensive Survey project	Civil Engg.		2	2 vacation/s of V 06 t.	03	40	60	100	2	RINCIPAL
9	Internship		Internship	To be carri VIII semes	ed out d ters.	uring the	vacation/s of V	/I and V	/II semes	sters and	/or VII a	RE CO	ollege of oru-Kanakapura-
			T	OTAL 15	5	12	06	24	320	480	800 <sup>3/10</sup>	2411	halli Mysu
Note:	PCC: Professio	onal core, PEC:	Professional Elective, OE: Op	en Elective,	MP: Mir	ni-projec	t.						
			Prof	essional Ele	ctive -1								

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Choice Based Credit System (CBCS) AND Outcome Based Education (OBE) (Effective from the academic year 2018 – 19)

						ning H Week	ours		Exami	nation		
Sl. No		irse and rse code	Course Title	T eaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	Т	Р	I		<b>S</b> 2	T	
1	HSMC	18CS51	Management, Entrepreneurship for IT idustry	HSMC	2	2		03	40	60	100	3
2	PCC	18CS52	Computer Networks and Security	CS / IS	3	2		03	40	60	100	4
3	PCC	18CS53	Database Management System	CS / IS	3	2		03	40	60	100	4
4	PCC	18CS54	Automata theory and Computability	CS / IS	3			03	40	60	100	3
5	PCC	18CS55	Application Development using Python	CS / IS	3			03	40	60	100	3
6	PCC	18CS56	Unix Programming	CS / IS	3			03	40	60	100	3
7	PCC	18CSL57	Computer Network Laboratory	CS / IS		2	2	03	40	60	100	2
8	PCC	18CSL58	DBMS Laboratory with mini project	CS / IS		2	2	03	40	60	100	2
9	HSMC	18CIV59	Environmental Studies	Civil/ Environmental [Paper setting: Civil Engineering Board]	1			02	40	60	100	1
				TOTAL	18	10	04	26	360	540	900	25

## AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

RINCIPAL

## ATME College of Engineering 13th KM Mysuru-Karakanika Bangalore Road Metanatti Mysuru-570 028

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#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Choice Based Credit System (CBCS) AND Outcome Based Education (OBE) (Effective from the academic year 2018 – 19)

VI SI	EMESTE	R										
					Teachi	ng Hours	Week		Exami	ination		
SI. No		ourse and ourse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
		1			L	Т	Р		_			
1	PCC	18CS61	System Software and Compilers	CS/IS	3	2		03	40	60	100	4
2	PCC	18CS62	Computer Graphics and Visualization	CS / IS	3	2		03	40	60	100	4
3	PCC	18CS63	Web Technology and its applications	CS/IS	3	2		03	40	60	100	4
4	PEC	18CS64X	Professional Elective -1	CS/IS	3			03	40	60	100	3
5	OEC	18CS65X	Open Elective –A	CS/IS	3			03	40	60	100	3
6	PCC	18CSL66	System Software Laboratory	CS/IS		2	2	03	40	60	100	2
7	PCC	18CSL67	Computer Graphics Laboratory with mini project	CS / IS		2	2	03	40	60	100	2
8	MP	18CSMP68	Mobile Application Development	CS/IS			2	03	40	60	100	2
9	INT		Internship	(To be carried intervening semesters)								
				TOTAL	15	10	06	24	320	480	800	24

#### Note: PCC: Professional core, PEC: Professional Elective, OE: Open Elective, MP: Mini-project, INT: Internship.

	Professional Elective -1
Course code under18XX64X	Course Title
18CS641	Data Mining and Data Warehousing
18CS642	Object Oriented Modelling and Design
18CS643	Cloud Computing and its Applications
18CS644	Advanced JAVA and J2EE
18CS645	System Modelling and Simulation
	Open Elective –A (Not for CSE / ISE Programs)
18CS651	Mobile Application Development
18CS652	Introduction to Data Structures and Algorithms
18CS653	Programming in JAVA
18CS654	Introduction to Operating System

Students can select any one of the open electives offered by any Department (Please refer to the list of open electives under 18CS65X).

Selection of an open elective is not allowed provided,

• The candidate has studied the same course during the previous semesters of the programme.

The syllabus content of open elective is similar to that of Departmental core courses or professional electives.

· A similar course, under any category, is prescribed in the higher semesters of the programme

Registration to electives shall be documented under the guidance of Programme Coordinator/ Adviser/Mentor.

Mini-project work: Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini- project can be assigned to an individual student or to a group having not more than 4 students.

**CIE procedure for Mini-project:** 

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide. The CIE marks awarded for the Mini-project work, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.
 (ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all the guides of the college. The CIE marks

awarded for the project report shall be the same for all the batch mates.

SEE for Mini-project:

(i) Single discipline: Contribution to the Mini-project and the performance of each group member shall be assessed individually in the semester end examination (SEE) conducted at the department.

(ii) Interdisciplinary: Contribution to the Mini-project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belongs to.

Internship: All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not takeup/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



ATME College of Engineering 13th KM Mysuru-Kanakabura-Bangalore Road Mellahalli Mysuru-570 028

Decor	DE	El to to a	Outcome Based Education (O) (Effective from	n the academic year 201	8 – 19)	stem	(CBCS)					
Progr	ramme: B.E:	Electronics &	Communication Engineering	V.CEMECTER								
				V SEMESTER	Teachin	g Hon	rs /Week		E	Institut		Т
					Icaciiii	gnou	S / WEEK		Exam	ination	1	-
SI. No		urse and urse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Fotal Marks	
					L	Т	Р		Ŭ		F	
1	HSMC	18ES51	Technological Innovation Management and Entrepreneurship		3	0		03	40	60	100	t
2	PCC	18EC52	Digital Signal Processing		3	2		03	40	60	100	+
3	PCC	18EC53	Principles of Communication Systems		3	2		03	40	60	100	+
4	PCC	18EC54	Information Theory & Coding		3			03	40	60	100	+
5	PCC	18EC55	Electromagnetic Waves		3			03	40	60	100	+
6	PCC	18EC56	Verilog HDL		3			03	40	60	100	+
7	PCC	18ECL57	Digital Signal Processing Laboratory			2	2	03	40	60	100	┢
8	PCC	18ECL58	HDL Laboratory			2	2	03	40	60	100	+
9	HSMC	18CTV59	Environmental Studies	Civil/Environmental [Paper setting: Civil Engineering Board]	1			02	40	60	100	T
				TOTAL	19	8	4	26	360	540	900	┝

Are reactivity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.



			Scheme of Outcome Based Educatio (Effectiv	ECHNOLOGICAL UN Teaching and Examina n (OBE) and Choice Ba e from the academic yea	ation 2018 used Cred	l – 19 it System						
Prog	gramme: B.E:	<b>Electronics &amp;</b>	Communication Engineering	the neutenite yea	1 2010 - 1	")						
				VI SEMESTER								
					Teach	ing Hour	s /Week		Exan	ination		T
Sl. No		rse and rse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	PCC	18EC61	Digital Communication		L	Т	Р					
2	PCC	18EC62	Embedded Systems		3	2		03	40	60	100	4
3	PCC	18EC62	Microwave and Antennas		3	2		03	40	60	100	4
4	PEC	18XX64X	Professional Elective -1		3	2		03	40	60	100	4
5	OEC	18XX65X	Open Elective -A		3			03	40	60	100	3
6	PCC	18ECL66	Embedded Systems Laboratory		3			03	40	60	100	3
7	PCC	18ECL67	Communication Laboratory			2	2	03	40	60	100	2
8	MP	18ECMP68	Mini-project			2	2	03	40	60	100	2
9	Internship		Internship	T. 1			2	03	40	60	100	2
			internship	To be carried out du	iring the va	cation/s o	of VI and VI				VIII seme	sters.
				TOTAL	15	10	6	24	320	480	800	24
Note:	<b>PCC:</b> Profess	ional core, PEC	C: Professional Elective, OE: Open E	lective MD: Mini profe	-4							
				Professional Elective -1								
	irse code unde	r 18XX64X	Course Title	- Toressional Elective -								
18EC	the second se		Operating System									
18EC			Artificial Neural Networks									
18EC			Data Structures using C++									
18EC			Digital System Design Using Verilog	g								
18EC	and the second se		Nanoelectronics									
18EC	646		Python Application Programming									

ATME College of Engineering 13thKM Mysuru-Kanakagara-Basgalore Road Meilahalli Mysuru-570 928

**V SEMESTER** 

						hing H /Week	ours		Exam	ination		
SI. No		urse and Irse code	Course Title	T eaching Department	Theory Lecture	Tutorial	Practical/ Drawing	uration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1			Management		L	Т	Р		0	ζα ά	T	
	PCC	18 EE51	Management and Entrepreneurship	EEE	3	0		03	40	60	100	3
2	PCC	18 EE52	Microcontroller	EEE	3	2		03	40	60	100	4
3	PCC	18 EE53	Power Electronics	EEE	3	2		03	40	60	100	4
4	PCC	18 EE54	Signals and Systems	EEE	3			03	40	60	100	3
5	PCC	18 EE55	Electrical Machine Design	EEE	3			03	40	60	100	3
6	PCC	18 EE56	High Voltage Engineering	EEE	3			03	40	60	100	3
7	PCC	18 EEL57	Microcontroller Laboratory	EEE		2	2	03	40	60	100	2
8	PCC	18 EEL58	Power Electronics Laboratory	EEE		2	2	03	40	60	100	2
9	НЅМС	18CIV59	Environmental Studies	Civil/ Environmental [Paper setting: Civil Engineering Board]	1			02	40	60	100	1
_				TOTAL	18	10	4	26	360	540	900	25

required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

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VI S	EMESTER				Jean 20	10 1	~)					
					Teachi	ng Hour	s /Week		Exam	ination		
SI. No		rse and rse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
		1			L	Т	Р			00	F	
1	PCC	18 EE61	Control Systems	EEE	3	2		03	40	60	100	4
2	PCC	18 EE62	Power System Analysis – 1	EEE	3	2		03	40	60	100	4
3	PCC	18 EE63	Digital Signal Processing	EEE	3	2		03	40	60	100	4
4	PEC	18 EE64X	Professional Elective -1	EEE	3			03	40	60	100	3
5	OEC	18 EE65X	Open Elective -A	EEE	3			03	40	60	100	3
6	PCC	18 EEL66	Control System Laboratory	EEE		2	2	03	40	60	100	2
7	PCC	18 EEL67	Digital Signal Processing Laboratory	EEE		2	2	03	40	60	100	2
8	MP	18 EEMP68	Mini-project				2	03	40	60	100	2
9	Internship		Internship	To be carri and VIII se	ied out dur emesters.	ring the	vacation/s	of VI an	d VII se			
			•	TOTAL	15	10	06	24	320	480	800	24
Note:	PCC: Profes	sional core, PEG	C: Professional Elective, OE: Oper	Elective, M	P: Mini-J	project.						
			Professi	onal Elective	e -1							
	ourse code ler18XX64X			Cor	arse Title							

under18XX64X	
18 EE641	Introduction to Nuclear Power
18 EE642	Electrical Engineering Materials
18 EE643	Computer Aided Electrical Drawing
18 EE644	Embedded System
18 EE645	Object Oriented Programming using C++
18EE646	Electric Vehicles Technologies
18EE647	Sensors and Transducers

#### **Open Elective -A**

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under 18XX65X).

Selection of an open elective shall not be allowed if,

The candidate has studied the same course during the previous semesters of the programme.

The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.

naineenng A similar course, under any category, is prescribed in the higher semesters of the programme. alore Road Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor ME

Mysuril-Mini-project work:

### Mellahalli

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini-project can be assigned to an individual student or to a group having not more than 4 students.

## CIE procedure for Mini-project:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the Mini-project work, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all the guides of the college.

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SI. No						ing H Week		Examination				
		urse and Irse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1					L	Т	Р	1	0	00	F	
1	PCC	18ME51	Management and Economics		2	2		03	40	60	100	3
2	PCC	18ME52	Design of Machine Elements I		3	2		03	40	60	100	4
3	PCC	18ME53	Dynamics of Machines		3	2		03	40	60	100	4
4	PCC	18ME54	Turbo Machines		3			03	40	60	100	
5	PCC	18ME55	Fluid Power Engineering		3			03	40	60		3
6	PCC	18ME56	Operations Management		3			03	40		100	3
7	PCC	18MEL57	Fluid Mechanics/Machines lab			2	2	03		60	100	3
8	PCC	18MEL58	Energy Conversion Lab			2	2	03	40	60	100	2
9	HSMC	18CIV59	Environmental Studies	Civil/ Environmental [Paper setting: Civil Engineering Board]	1			02	40	60 60	100	2
				TOTAL	18	10	04	26	360	540	900	25

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PRINCIPAL ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028

101	EMESTER				Teach		s /Week	1				
SI. No		Irse and rse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18ME61	Finite Element Methods		L	Т	Р				F	
2	PCC	18ME62	Design of Machine Element W		3	2		03	40	60	100	+
3	PCC	18ME63	Design of Machine Elements II Heat Transfer		3	2		03	40	60	100	+
4	PEC	18ME64X			3	2		03	40	60	100	+-
5	OEC	18ME65X	Professional Elective -1		3			03	40	60	100	+-
6	PCC		Open Elective -A		3			03	40	60	100	+-
		18MEL66	Computer Aided Modelling and Analysis Lab			2	2	03	40	60	100	+
7	PCC	18MEL67	Heat Transfer Lab			2	2	0.2				
8	MP	18MEMP68	Mini-project				2	03	40	60	100	
9	Internship		Internship	To be carri and VIII se	ied out du	ring the	2 vacation/s	03 s of VI a	40 nd VII	60 semeste	100 rs and /	or N
				TOTAL	15	10	06	24	320	480	800	

## Note: PCC: Professional core, PEC: Professional Elective, OE: Open Elective, MP: Mini-project.

Course code under	Pi Pi	rofessional Elective -1	
18XX64X	Course Title	Course code under 18XX64X	Course Title
18ME641	Non-Traditional Machining	18ME644	Vibrations and N. J. D. J.
18ME642	Refrigeration and Air conditioning	18ME645	Vibrations and Noise Engineering Composite Materials Technology
18ME643	Theory of Elasticity	18ME646	Entrepreneurship Development
G: 1		<b>Open Elective -A</b>	preneursnip Development

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer

Selection of an open elective shall not be allowed if,

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A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

#### Mini-project work:

VI SEMESTED

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini- project can be assigned to an individual student or to a group having not more than 4 students.

## CIE procedure for Mini-project:

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> PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

Credits

24

			VISVESVARAYA TECHN	OLOGICAL	UNIVE	RSITY,	BELAG	AVI				
			Scheme of Teach									
			<b>Outcome Based Education(OB)</b>					(CBCS)				
			(Effective from	the academic	year 201	8 – 19)						
Progra	mme: CIV	IL ENGIN	NEERING									
VII SI	EMESTER											
					Teachi	ng Hours	/Week		Exa	mination		
SI. No	Course and Course code		Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Fotal Marks	Credits
					L	Т	Р			l oo	F	
1	PCC	18CV71	Quality Surveying and Contract Management	Civil Engg.	3			03	40	60	100	3
2	PCC	18CV72	Design of RCC and Steel Structures	Civil Engg.	3			03	40	60	100	3
3	PEC	18CV73X		Civil Engg.	3			03	40	60	100	3
4	PEC	18CV74X		Civil Engg.	3			03	40	60	100	3
5	OEC	18CV75X		Civil Engg.	3			03	40	60	100	3
6	PCC	18CVL76		Civil Engg.		2	2	03	40	60	100	2
7	PCC	18CVL77	Geotechnical Engineering Laboratory	Civil Engg.		2	2	03	40	60	100	2
8	Project	18CVP78	Project Work Phase - 1				2		100		100	1
9	Internship		Internship	(If not complete vacation of VII	ed during t and VIII se	he vacation mesters )	on of VI a	and VII set	mesters, it	t shall be	carried out d	uring the
				TOTAL	15	04	06	21	380	420	00	20
		1										
ote: PC	C: Professiona	Il core, PEC:	Professional Elective.									
0111100	ode under 180	CUTON		fessional Elective	e - 2							
8CV731		LV/3X	Course Title									
8CV732			Theory of Elasticity Air Pollution and Control									
											Xon	IDA1
8CV733			Pavement Materials & Construction								et inic	. Engine
8CV734			Ground Water Hydraulics							ATM	E College	
8CV735			Masonry Structures							12HTKM	E College Mysuru-Kanul	570 (
				essional Electives	5 - 3						Mysuru-Kanal	SUM-2.4
	ode under 180	the second s	Course Title									
8CV741			Earthquake Engineering									
8CV742			Design Concepts of Building Services									
8CV743			Reinforced Earth Structures									

			<b>Outcome Based Education(C</b>	ching and Exami DBE) and Choice E	ased Cr	redit S	System (C	CBCS)				
Program	mme: CIVII	ENGINEE		om the academic ye	ear 2018	- 19)						
	MESTER											
					Teachi	ng Hours	s/Week		E	xamination		
SI. No	Course and SI. No Course code			T eaching Department	Theory Lecture	a Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	PCC	18CV81	Design of Pre-stressed Concrete	Civil Engg.	<u>L</u> 3	T 	P	03	40	(0)	100	
2	PEC	18CV82X	Professional Elective - 4	Civil Engg.	3			03	40	60 60	100	3
3	Project	18CVP83	Project Work Phase - 2	Civil Engg.			16	03	40	60	100	3
4	Seminar	18CVS84	Technical Seminar	Civil Engg.			2	03	100		100	8
5	Internship	18CVI85	Internship	Completed during	the vacation/s of VI and VII /II and VIII semesters.) 0				40	60	100	3
				TOTAL	06		18	15	260	240	500	18
ote: PC(	· Professional (	Core, PEC: Profe	agional Election									10
010.100		Joie, FEC. Flore	ssional Elective.									
			I	Professional Electives -	4							
	de under 18CV	/82X	Course Title							1		
8CV821			Bridge Engineering									
8CV822			Prefabricated Structures							WM	TOAL	
8CV823			Advanced Foundation Engineering							PRIN	Enelli	eering
8CV824			Rehabilitation & Retrofitting							College	Elig Ban	alere R
3CV825			Pavement Design						ATME 1310KN N M	ysuru-Kan	1-511-571	112

11

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

SEE for Project Work Phase - 2:
#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Choice Based Credit System (CBCS) AND Outcome Based Education (OBE) (Effective from the academic year 2018 – 19)

111	SEMESTER		1		Teacht	ng Uou	Wash	1	E	In all		
SI. No		urse and Irse code	Course Title	Teaching Department	Theory Lecture	ng Hours Ieiroph T	d Practical/ Drawing	Duration in hours	CIE Marks	Ination SEE Warks	Total Marks	Credits
1	PCC	18CS71	Artificial Intelligence and Machine Learning	CS / IS	4			03	40	60	100	4
2	PCC	18CS72	Big Data Analytics	CS/IS	4			03	40	60	100	4
3	PEC	18CS73X	Professional Elective – 2	CS/IS	3			03	40	60	100	3
4	PEC	18CS74X	Professional Elective – 3	CS/IS	3			03	40	60	100	3
5	OEC	18CS75X	Open Elective –B	CS/IS	3			03	40	60	100	3
6	PCC	18CSL76	Artificial Intelligence and Machine Learning Laboratory	CS / IS			2	03	40	60	100	2
7	Project	18CSP77	Project Work Phase - 1	CS/IS			2		100		100	1
8	INT		Internship	(If not con carried out	npleted du t during th	ring the e interve	vacation of	of VI and tions of	d VII sei VII and	nesters, I VIII se	it has to	be
				TOTAL	17		04	18	340	360	700	20
Cour	18CS 18CS 18CS 18CS 58 code undo 18CS	732 733 734 er 18CS74X 7741	Course Title Digital Image Processing	al Electives	-3							
	18CS 18CS 18CS	743 744	Network management           Natural Language Processing           Cryptography									
	18CS		Robotic Process Automation Desig Open Elective –B (N	ot for CSE /	pment ISE Progr	ams)						
	1805		Introduction to Big Data Analytics									
	1805		Python Application Programming									
	18CS		Introduction to Artificial Intelligen Introduction to Dot Net framework		ation Deve	lopment						
Select The The A Registent Project individent CIE p (i) Sin	ion of an open te candidate ha te syllabus con similar course, ration to electi et work: Based dual student or t strength can t strength can gle discipline:	elective is not allo s studied the same tent of open electi- under any categor ves shall be docum d on the ability/abi to a group having be 5 or 6. <b>Project Work Pha</b> The CIE marks sl	course during the previous semesters of the ve is similar to that of Departmental core co ry, is prescribed in the higher semesters of th nented under the guidance of Programme Co lities of the student/s and recommendations not more than 4 students. In extraordinary of	e programme. urses or profe ne programme pordinator/ Ac of the mentor cases, like the	ssional elec viser/Ment , a single di funded pro	or. iscipline o jects requ	or a multidi iring stude rtment and	sciplinar nts from o two senio	different or faculty	discipline	es, the pro	oject

(i) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external

(ii) Interdisciplinary: Continuous internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work phase -1, shall be based on the evaluation of project work phase -1 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

Internship: All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not takeup/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

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#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Choice Based Credit System (CBCS) AND Outcome Based Education (OBE) (Effective from the academic year 2018 – 19)

VIII	SEMESTEI	R			-							
					Teach	ing Hour	s /Week		Examin	ation		
SI. No		rse and se code	Course Title	, Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	Т	Р		0		L	
1	PCC	18CS81	Internet of Things	CS/IS	3			03	40	60	100	3
2	PEC	18CS82X	Professional Elective – 4	CS/IS	3			03	40	60	100	3
3	Project	18CSP83	Project Work Phase – 2	CS/IS			2	03	40	60	100	8
4	Seminar	18CSS84	Technical Seminar	CS/IS			2	03	100		100	1
5	INT	18CSI85	Internship	(Comple interveni VII seme VIII seme	ng vacat	tions of V		03	40	60	100	3
				TOTAL	06		04	15	260	240	500	18

#### Note: PCC: Professional Core, PEC: Professional Elective, OEC: Open Elective, INT: Internship.

	Professional Electives – 4								
Course code	Course Title								
under 18CS82X									
18CS821	Mobile Computing								
18CS822	Storage Area Networks								
18CS823	NoSQL Database								
18CS824	Multicore Architecture and Programming								

#### Project Work CIE procedure for Project Work Phase - 2:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide. The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

#### SEE for Project Work Phase - 2:

(i) Single discipline: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted at the department.

(ii) Interdisciplinary: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belong to.

Internship: Those, who have not pursued /completed the internship shall be declared as fail and have to complete during subsequent University examination after satisfying the internship requirements

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card. Activity points of the students who have earned the prescribed AICTE activity Points shall be sent the University along with the CIE marks of 8th semester. In case of students who have not satisfied the AICTE activity Points at the end of eighth semester, the column under activity Points shall be marked NSAP (Not Satisfied Activity Points).





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### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

					- cacin	ing Hour			Exam	ination		
SI. No	Cours Cours		Course Title	Teaching Department	Theory	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18 EE71	Power System Analysis – 2	EEE	L 2	Т 2	P	03	40	(0)		
2	PCC	18 EE72	Power System Protection	EEE	3			03	40	60 60	100	
3	PEC	18 EE73X	Professional Elective - 2	EEE	3							
4	PEC	18 EE74X	Professional Elective - 3	EEE	3			03	40	60	100	
5	OEC	18 EE75X	Open Elective -B	EEE	3			03	40	60 60	100	
6	PCC	18 EEL76	PSS laboratory	EEE		2	2	03	40	60	100	
7	PCC	18 EEL77	Relay & HV lab	EEE		2	2	03	40	60	100	
8	Project	18 EEP78	Project Work Phase - 1	EEE			2		100		100	-
9	Internship		Internship	(If not com carried out	pleted du	ing the	vacation o	f VI and	VII sen	nesters i	t shall b	e
					uumg uu	vacatit	II UI VII i	and v III	semeste	ers)		
			Professional Elective. Professio	TOTAL	14	<b>06</b>	06	<b>21</b>	380	420	800	2
Course 8XX7	e code under 3X	Course Title	Professio	TOTAL	14	06					800	2
Course 8XX7 8EE73	e code under 3X 31	Course Title Solar and W	Professio	TOTAL	14	06					800	2
Course 18XX7 18EE7: 18EE7:	e code under 3X 31 32	Course Title Solar and W Micro and M	Professio ind Energy Vano Scale Sensors and Transduc	TOTAL	14	06					800	2
Course 18XX7 18EE73 18EE73 18EE73	e code under 3X 31 32 33	Course Title Solar and W Micro and M Integrated of	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation.	TOTAL	14	06					800	2
Course 18XX7 18EE7: 18EE7: 18 EE7 18 EE7	e code under 3X 31 32 33 34	Course Title Solar and W Micro and M Integrated of Advanced C	Profession and Energy Nano Scale Sensors and Transduc Distribution Generation. Control Systems	TOTAL nal Elective ers	14	06					800	2
Course 18XX7 18EE7: 18EE7: 18 EE7 18 EE7	e code under 3X 31 32 33 34	Course Title Solar and W Micro and M Integrated of Advanced C	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Control Systems wer Control in Electric Power System	TOTAL mal Elective ers ems	- 2	06					800	2
Course 18XX7 18EE7: 18EE7: 18 EE7 18 EE7 18 EE7	e code under 3X 31 32 33 34 35	Course Title Solar and W Micro and M Integrated of Advanced C Reactive Pow	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Control Systems wer Control in Electric Power System	TOTAL nal Elective ers	- 2	06					800	2
Course 18XX7 18EE7: 18EE7: 18 EE7 18 EE7 18 EE7	e code under <b>3X</b> 31 <b>32</b> 33 34 35 e code under	Course Title Solar and W Micro and M Integrated of Advanced C	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Control Systems wer Control in Electric Power System	TOTAL mal Elective ers ems	- 2	06					800	2
Course 18XX7 18EE7: 18EE7: 18 EE7 18 EE7 18 EE7 18 EE7 200000000000000000000000000000000000	e code under <b>3X</b> 31 <b>32</b> 33 34 35 e code under <b>4X</b>	Course Title Solar and W Micro and M Integrated of Advanced C Reactive Pow Course Title	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Control Systems wer Control in Electric Power System Profession	TOTAL mal Elective ers ems	- 2	06					800	2
Course 18XX7 18EE7 18EE7 18 EE7 18 EE7 18 EE7 20urse 8 EE7	e code under <b>3X</b> 31 <b>32</b> 33 34 35 <b>code under</b> <b>4X</b> 41	Course Title Solar and W Micro and M Integrated of Advanced C Reactive Pow Course Title Industrial D	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Ontrol Systems wer Control in Electric Power System Profession rives and Application	TOTAL mal Elective ers ems	- 2	06					800	2
Course 18XX7 18EE7 18EE7 18 EE7 18 EE7 18 EE7 8 EE7 8 EE7 8 EE7 8 EE7	e code under 3X 31 32 33 34 35 code under 4X 41 42	Course Title Solar and W Micro and M Integrated of Advanced C Reactive Pow Course Title Industrial D Utilization of	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Ontrol Systems wer Control in Electric Power Syste Profession rives and Application of Electrical Power	TOTAL mal Elective ers ems nal Electives	- 2	06					800	2
Course 18XX7 18EE7 18EE7 18 EE7 18 EE7 18 EE7 Course 18 EE7 8 EE7 8 EE7	e code under 3X 31 32 33 34 35 e code under 4X 41 42 43	Course Title Solar and W Micro and M Integrated of Advanced C Reactive Pow Course Title Industrial D Utilization of	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Ontrol Systems wer Control in Electric Power System Profession rives and Application	TOTAL mal Elective ers ems nal Electives	- 2						800	
Course 18XX7 18EE7 18EE7 18EE7 18EE7 18EE7 8EE7 8EE	e code under 3X 31 32 33 34 35 e code under 4X 41 42 43 44	Course Title Solar and W Micro and M Integrated of Advanced C Reactive Pow Course Title Industrial D Utilization of AI Techniq Smart Grid	Profession ind Energy Nano Scale Sensors and Transduc Distribution Generation. Ontrol Systems wer Control in Electric Power Syste Profession rives and Application of Electrical Power	TOTAL mal Elective ers ems nal Electives	- 2						800	

Selection of an open elective shall not be allowed if,

The candidate has studied the same course during the previous semesters of the programme.

The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.

A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

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#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 - 19)

VII SEMESTER

8       Internship        Internship       (If not completed during the vacation of VI and VII semesters, i carried out during the vacation of VII and VIII semesters)         TOTAL       15       04       06       18       340       360						Teachi	ng Hour	s /Week		Exam	ination		
1       PCC       18ME71       Control Engineering       3 $I$ $T$ $P$ $I$ $I$ $I$ 2       PCC       18ME72       Computer Aided Design and Manufacturing       3 $I$ <th></th> <th></th> <th></th> <th>Course Title</th> <th>Teaching Department</th> <th>Theory Lecture</th> <th>Tutorial</th> <th>Practical/ Drawing</th> <th>Duration in hours</th> <th></th> <th>EE Marks</th> <th>Total Marks</th> <th>Credits</th>				Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours		EE Marks	Total Marks	Credits
2       PCC       18ME71       Computer Aided Design and Manufacturing       3         03       40       60         3       PEC       18ME72       Computer Aided Design and Manufacturing       3         03       40       60         4       PEC       18ME73X       Professional Elective - 2       3         03       40       60         5       OEC       18ME74X       Professional Elective - 3       3         03       40       60         6       PCC       18ME75X       Open Elective - B       3         03       40       60         6       PCC       18ME176       Computer Integrated Manufacturing Lab        2       2       03       40       60         7       Project       18ME177       Design Lab        2       2       03       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       03       40       60         8       Internship        Internship       (If not completed during the vacation of VI and VII semesters, i carried out during the vacation of V	1	PCC	18ME71	Cantal E		L	Т	Р			~	F	
2       FCC       18ME72       Computer Aided Design and Manufacturing       3         03       40       60         3       PEC       18ME73X       Professional Elective - 2       3         03       40       60         4       PEC       18ME74X       Professional Elective - 3       3         03       40       60         5       OEC       18ME75X       Open Elective - B       3         03       40       60         6       PCC       18ME176       Computer Integrated Manufacturing Lab        2       2       03       40       60         PCC       18MEL77       Design Lab        2       2       03       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       03       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2        100          8       Internship        Internship       Internship       Internship       40       60       18       340       360 </td <td>2</td> <td></td> <td>TONE/I</td> <td>Control Engineering</td> <td></td> <td>3</td> <td></td> <td></td> <td>03</td> <td>40</td> <td>60</td> <td>100</td> <td>3</td>	2		TONE/I	Control Engineering		3			03	40	60	100	3
4       PEC       18ME/3A       Professional Elective - 2       3         03       40       60         5       OEC       18ME74X       Professional Elective - 3       3         03       40       60         6       PCC       18ME75X       Open Elective - B       3         03       40       60         6       PCC       18ME176       Computer Integrated Manufacturing Lab        2       2       03       40       60         7       Project       18ME177       Design Lab        2       2       03       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       03       40       60         8       Internship        Internship       Internship        100          TOTAL       15       04       06       18       340       360			18ME72	Computer Aided Design and Manufacturing		3			03	40		100	3
4       PEC       18ME74X       Professional Elective - 3       3        0.5       40       60         5       OEC       18ME75X       Open Elective - B       3         0.3       40       60         6       PCC       18MEL76       Computer Integrated Manufacturing Lab        2       2       0.3       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       0.3       40       60         8       Internship        Internship       Internship       Internship       Internship       40       60	3	PEC	18ME73X	Professional Elective - 2		2							
5       OEC       18ME75X       Open Elective -B       3        0.3       40       60         6       PCC       18MEL76       Computer Integrated Manufacturing Lab        2       2       0.3       40       60         9       PCC       18MEL77       Design Lab        2       2       0.3       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       0.3       40       60         8       Internship        Internship       Internship       Internship       Internship       Internship       3        2       2       0.3       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2        100          8       Internship        Internship       Internship       Internship       340       360	4	PEC	18ME74X									100	3
6       PCC       18MEL76       Computer Integrated Manufacturing Lab        2       2       03       40       60         PCC       18MEL77       Design Lab        2       2       03       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       03       40       60         8       Internship        Internship       Internship       Internship       Internship       VI and VII semesters, i carried out during the vacation of VI and VII semesters, i	5	OEC	18ME75X			_				10	60	100	3
18MEL76       Computer integrated Manufacturing Lab        2       2       03       40       60         PCC       18MEL77       Design Lab        2       2       03       40       60         7       Project       18MEP78       Project Work Phase - 1        2       2       03       40       60         8       Internship        Internship       Internship       Internship       Internship       Internship       40       60         100          100          100          100          100          100          100          100          100          100          100          100           100            100            100       -	6	PCC				3			03	40	60	100	3
7       Project       18MEP78       Project Work Phase - 1        2       2       03       40       60         8       Internship        Internship       Internship       Internship       Internship       Internship       Internship       Internship       340       60         TOTAL       15       04       06       18       340       360				Manufacturing Lab			2	2	03	40	60	100	2
7     Project     18MEP78     Project Work Phase - 1      2     30     40     00       8     Internship      Internship     Internship     Internship     (If not completed during the vacation of VI and VII semesters, i carried out during the vacation of VII and VII semesters)       TOTAL     15     04     06     18     340     360			18MEL77	Design Lab			2	2	02	40	(0)	100	
8       Internship        Internship       (If not completed during the vacation of VI and VII semesters, i carried out during the vacation of VI and VIII semesters)         TOTAL       15       04       06       18       340       360	7	Project	18MEP78	Project Work Phase - 1							60	100	2
TOTAL 15 04 06 18 340 360	8	Internship			(If not com carried out	pleted du	ring the	vacation	of VI an	d VII se	mesters	100 , it shall	1 be
					TOTAL	15	04				20		
Course code under Course Title Course sed	C			Professi	onal Elective	- 2				2.10	550	700	20

Course code under 18XX73X	Course Title	Course code under 18XX73X	Course Title
18ME731 18ME732	Design for Manufacture Automation and Robotics	18ME734	Total Quality Management
18ME733	Computational Fluid Dynamics	18ME735	Operations Research
Course and and	Professio	nal Electives - 3	
Course code under 18XX74X	Course Title	Course code under 18XX74X	Course Title
18ME741 18ME742	Additive Manufacturing	18ME744	Mechatronics
10ME/42	Emerging Sustainable Building Cooling Technologies	18ME745	Project Management
18ME743	Theory of Plasticity		

**Open Elective -B** 

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under 18XX75X).

Selection of an open elective shall not be allowed if,

The candidate has studied the same course during the previous semesters of the programme.

The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.

A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

#### Project work:

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary project can be assigned to an individual student or to a group having not more than 4 students. In extraordinary cases, like the funded projects requiring students from different disciplines, the project student strength can be 5 or6.

## CIE procedure for Project Work Phase - 1:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of the project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the Project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

Internship: All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the Internship requirements.



#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2018 – 19 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2018 – 19)

VIII SEMESTER

					Teac	hing Ho	urs /Week		Exam	ination		
SI. No		rse and rse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	OIE Marks	SEE Marks	Total Marks	Credits
1	PCC	18ME81	Enougy Engineerin		L	Т	Р		0		L	
2	PEC		Energy Engineering		3			03	40	60	100	3
		18ME82X	<b>Professional Elective - 4</b>		3			03	40	60	100	3
3	Project	18MEP83	Project Work Phase - 2				2	03	40	60	100	8
4	Seminar	18MES84	Technical Seminar				2	03	100		100	1
5	Internship	18XXI85	Internship	Complet of VI an VII and	d VII se	mesters	and /or	03	40	60	100	3
				TOTAL	06		04	15	260	240	500	18

#### Note: PCC: Professional Core, PEC: Professional Elective.

	Professi	onal Electives - 4	
Course code under 18XX82X	Course Title	Course code under 18XX82X	Course Title
18ME821	CNC Machine Tools	18ME824	Automobile Engineering
18ME822	Tribology	18ME825	Tool Design
18ME823	Non-Destructive Testing and Evaluation	18ME826	Fracture Mechanics

#### **Project Work**

#### CIE procedure for Project Work Phase - 2:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates. (ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates. SEE for Project Work Phase - 2:

(i) Single discipline: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted at the department.

(ii) Interdisciplinary: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belongs to.

Internship: Those, who have not pursued /completed the internship, shall be declared as fail and have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card. Activity points of the students who have earned the prescribed AICTE activity Points shall be sent the University along with the CIE marks of 8th semester. In case of students who have not satisfied the AICTE activity Points at the end of eighth semester, the column under activity Points shall be marked NSAP (Not Satisfied Activity Points).

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## Visvesvaraya Technological University, Belagavi

#### REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017-18

Annexure -1

		Sch	AYA TECHNO eme of Teachin Choice Base	ng and Examin d Credit System	nation 26	17-2018	10/11/1				
			1 SEMESTER B	E/B.Tech. (PHYS	ICS CRO	8)	a construction of the			ter in certites ques	
					1	Feaching ours /V .s.		Fran	ination		T
SL No	Course Code	Course Title	Teaching Department	Board	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CTE Marks	Total Marks	
l	17MATH	Engineering Mathematics	Mathematics	Basic Science	04	-	03	60	40	100	+
2	17PHY12	Engineering Physics	Physics	Basic Science	04		03	60	40	100	+
3	17CIV13	Elements of Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	04	•	03	60	40	100	t
4	17EME14	Elements of Mechanical Engineering	Mechanical Engineering	Mechanical Engineering	04		03	60	40	100	1
5	17ELE17	Basic Electrical Engineering	E and E Engineering	E and E Engineering	04		03	60	40	100	t
6	17WSL16	Workshop Practice	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering		Instruction Practical	03	60	40	100	
7	17PHYL17	Engineering Physics Laboratory	Physics	Basic Science		Instruction Practical	03	60	40	100	t
8	17ENG18	Language - English (Audit Course)	Humanities		01						t
				TOTAL		21 hours al: 06 hours	21	420	280	700	2
		II	SEMESTER B.E./	R Tach (Cliffing	TOVCD			C. Al Deliver Agreen			
1	17MAT21	Engineering Mathematics	Mathematics	Basic Science	04		03	60	40	100	
4	17CHE22	Engineering Chemistry	Chemistry	Basic Science	04		03	60	40	100	
	17PCD23	Programming in C and Data Structures	Any Engineering Department	Computer Science and Engineering	04	-	03	60	40	100	4
	17CED24	Computer Aided Engineering Drawing	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	02Hour 1 04-Hour	instruction Practice	03	60	40	100	4
	17ELN25	Basic Electronics	ECE/EEE/TC/E and I.	E and C Engineering	04	**	03	60	40	100	4
	17CPL26	Computer Programming Laboratory	Any Engineering Department	Computer Science and Engineering	01 Hour 1 02Hour P		03	60	40	100	2
-	17CHEL27	Engineering Chemistry Laboratory	Chemistry	Basic Science	01Hour 1 02Hour P		03	60	40	100	2
	17C[V28	Environmental Studies (Audit Course)	Civil/ Environmental Engineering	Civil Engineering	01 Tutoria	d	n.e.	30	20	50	
				TOTAL	Theory:2	1 hours : 68 hours	21	450	300	750	24

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21

## Visvesvaraya Technological University, Belagavi

## REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017-18

Annexure -1

		5	ARAYA TECHNO cheme of Teachin Choice Based	g and Examinat	ion 2017-	2018					
~~~~		1	SEMESTER B.E.A	B.Tech (CHEMIS	TRY CR	OLD)			Sector and shaped		-
						Teaching ours /Week	1	Exa	mination		T
SI. No	Course Code	Course Title	Teaching Department	Board	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MATH	Engineering Mathematics -I	Mathematics	Basic Science	04	+	03	100			+
2	17CHE12	Engineering Chemistry	Chemistry	Basic Science	04		03	60	40	100	-
3	17PCD13	Programming in C and Data Structures	Any Engineering Department	Computer Science and Engineering	04		03	60 60	40	100	T
1	17CED14	Computer Aided Engineering Drawing	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering		Instruction Practice	03	60	40	100	4
	17ELN17	Basic Electronics	ECE/EEE/TC/E and I.	E and C Engineering	04		03	60	40	100	4
	17CPL16	Computer Programming Laboratory	Any Engineering Department	Computer Science and Engineering	1	Tutorial Practical	03	60	40	100	2
	17CHEL17	Engineering Chemistry Laboratory	Chemistry	Basic Science	01Hour 02Hour	Tutorial Practical	03	60	40	100	2
	17CIV18	Environmental Studies (Audit Course)	Civil/ Environmental Engineering	Civil Engineering	01Hour7			30	20	50	
				TOTAL		21 hours J: 08 hours	21	450	300	750	24
		11	SEMESTER B.E./	Tak (BUVOIO)	00000			-			
Τ	17MAT21	Engineering Mathematics -II	Mathematics	Basic Science	64	Contractor Contractor Contractor	0.				
T	17PHY22	Engineering Physics	Physics	Basic Science	04	- 1	03	60	40	100	4
Γ	17CIV23	Elements of Civil	Civil	Civil	Contraction in Case on province on the		03	60	40	100	4
Ŀ	1101123	Engineering and Mechanics	Engineering	Engineering	04		03	60	40	100	4
	17EME24	Elements of Mechanical Engineering	Mechanical Engineering	Mechanical Engineering	04	••	03	60	40	100	4
	17ELE25	Basic Electrical Engineering	E and E Engineering	E and E Engineering	64		03	60	40	100	4
1	17WSL26	Workshop Practice	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	01-Hour 1 02-Hour F	nstruction Practical	03	60	40	100	2
1	miller	Engineering Physics Laboratory	Physics	Basic Science	01-Hour 1 02-Hour F		03	60	40	100	2
1	7ENG28	Language – English (Audit Course)	Humanities		01				-		
				TOTAL	Theory:21 Practical:		21	420	280	700	24

ATME College of Engineering IsthKM Mysuru-Kanahapula Ballarore Road Mellahalli Mysuru-570 928

22

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

## **B.E: CIVIL ENGINEERING**

SI. No.	Course Code	Title	Teaching	Teaching	g Hours /Week		Exam	ination		Crudit
1			Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE	Total	Credits
1	17MAT31	Engineering Mathematics –III*	Maths	04	8	03	60	Marks	Marks	
2	17CV32	Strength of Materials	Civil Engg.	04		03		40	100	4
3	17CV33	Fluid Mechanics	Civil Engg.	04			60	40	100	4
4	17CV34	Basic Surveying	Civil Engg.			03	60	40	100	4
5	17CV35			04		03	60	40	100	4
		Engineering Geology	Civil Engg.	04		03	60	40	100	3
6	17CV36	Building Materials and Construction	Civil Engg.	03		03	60	40		
7	17CVL37	Building Materials Testing Laboratory	Civil Engg.	01-Hour In 02-Hour Pr		03	60	40	100	4
8	17CVL38	Basic Surveying Practice	Civil Engg.	01-Hour In 02-Hour Pr	struction	03	60	40	100	2
9	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	2
Kai	nnada/Constitution	TOTAL		Draation	24hours l: 06 hours	25	510	340	850	28

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

### 2. Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics – I, which is 03 contact hours per week.

Maths	03		02				
			03	60		60	
lateral entry student	ts (except B.	Sc candidates)			pan		
					PRINCI	PAL	
				ATME	College o	engine Rangalore Re	90
	4			13MIKM	Mysuru-Kallan	surij-570 028	
	Maths lateral entry student		Maths     03       lateral entry students (except B.Sc candidates)       4	lateral entry students (except B.Sc candidates)	lateral entry students (except B.Sc candidates)	lateral entry students (except B.Sc candidates)	03 60 60

#### **III SEMESTER**

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

#### **IV SEMESTER**

## **B.E: CIVIL ENGINEERING**

SI. No.	<b>Course Code</b>	Title	Teaching Department	Teaching H	lours /Week		Exam	ination		Credits
110.			Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE	Total	Creuns
1	17MAT41	Engineering Mathematics -IV*	Maths	04	6			Marks	Marks	
2	17CV42	Analysis of Determinate Structures	Civil Engg.	04		03	60	40	100	4
3	17CV43	Applied Hydraulics	Civil Engg.			03	60	40	100	3
4	17CV44	Concrete Technology	Civil Engg.	04		03	60	40	100	4
5	17CV45			04		03	60	40	100	4
		Basic Geotechnical Engineering	Civil Engg.	04		03	60	40	100	
6	17CV46	Advanced Surveying	Civil Engg.	03		03	60	40		4
7	17CVL47	Fluid Mechanics Laboratory	Civil Engg.	01-Hour Instru 02-Hour Pract		03	60	40	100	4
8	17CVL48	Engineering Geology Laboratory	Civil Engg.	01-Hour Instru	ction	03			100	
9	17KL/CPH39/49	Kannada/Constitution of India,		02-Hour Practi	cal	03	60	40	100	2
		Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
			TOTAL	Theory: 24h Practical: 06 h	ours	25	510	340	850	28

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

### 2.Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics – II, which is 03 contact hours per week.

1	17MATDIP41	Additional Mathematics –II	Maths	03		0.7		1		T
(ii) Lan	guage English (Audit	Course) be compulsorily studied by all later				03	60		60	
		,	ral entry students (e	except B.Sc can	didates)			Jay		
							6	DDINCIP	AL	
				5			THE	College of	AL Engineering Jura-Bangalore Ros HIJ-570 22	4
							ATME	ysuru-Kanaka	WIJ-570 28	

## **B.E:** Computer Science and Engineering

#### **III SEMESTER**

SI.	<b>Course Code</b>	Title Denartment		Teaching	Hours /Week		Exami	nation		Credits
No		110	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT31	Engineering Mathematics - III	Maths	04		03	60	40	100	4
2	17CS32	Analog and Digital Electronics	CS/IS	04		03	60	40	100	4
3	17CS33	Data Structures and Applications	CS/IS	04		03	60	40	100	4
4	17CS34	Computer Organization	CS/IS	04		03	60	40	100	4
5	17CS35	Unix and Shell Programming	CS/IS	03		03	60	40	100	3
6	17CS36	Discrete Mathematical Structures	CS/IS	04		03	60	40	100	4
7	17CSL37	Analog and Digital Electronics Laboratory	CS/IS	01-Hour In 02-Hour Pr		03	60	40	100	2
8	17CSL38	Data Structures Laboratory	CS/IS	01-Hour In 02-Hour Pr		03	60	40	100	2
9	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
		TOTAL			24hours l: 06 hours	25	510	340	850	28

1.Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

#### 2. Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics – I, which is 03 contact hours per week.

1	17MATDIP31	Additional Mathematics -I	Maths	03		03	60	 College of Engineering
(ii) La	nguage English (Aud	dit Course) be compulsorily studied by all	lateral entry student	ts (except B.	Sc candidates)			1300 Mollahalli Mysuru-570 U28

Sl. No	<b>Course Code</b>	Title	Teaching	Teaching H	ours /Week		Exam	ination		Credits
INO		The	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total	
1	17MAT41	Engineering Mathematics - IV	Maths	04					Marks	
2	17CS42	Object Oriented Concepts	CS/IS	03		03	60	40	100	4
3	17CS43	Design and Analysis of Algorithms		03		03	60	40	100	3
4			CS/IS	04		03	60	40	100	4
4	17CS44	Microprocessors and Microcontrollers	CS/IS	04		03	60	40	100	
5	17CS45	Software Engineering	CS/IS	04				40	100	4
6	17CS46	Data Communication	CS/IS			03	60	40	100	4
			03/13	04		03	60	40	100	4
7	17CSL47	Design and Analysis of Algorithm Laboratory	CS/IS	01-Hour Instru 02-Hour Practi		03	60	40	100	2
8	17CSL48	Microprocessors Laboratory	CS/IS	01-Hour Instru					100	
0	1.5777	Kannada/Constitution of India,		02-Hour Practi		03	60	40	100	2
9	17KL/CPH39/49	Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
			TOTAL	Theory: 24h	ours				50	01
			IOTAL	Practical: 06 h		25	510	340	850	28

**IV SEMESTER** 

## **B.E:** Computer Science and Engineering

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and

### 2.Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics – II, which is 03 contact hours per week.

1	17MATDIP41	Additional Mathematics –II	Maths	03	03	60	ATME College of Engineering Denkin Megnukan Augura Bangaroje Roan
(ii) Lan	guage English (Audit	Course) be compulsorily studied by all later	al entry students (e	except B.Sc candid	lates)	00	1381KM MOStru Kanakapuru 570 D28

NCIPAL

#### SCHEME OF TEACHING AND EXAMINATION B.E Electronics & Communication Engineering / Telecommunication Engineering (Common to Electronics & Communication and Telecommunication Engineering)

61			Teaching	Teaching	Hours /Week		Exami	nation		Credits
Sl. No	Course Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT31	Engineering Mathematics –III*	Maths	04		03	60	40	100	4
2	17EC32	Electronic Instrumentation	EC	03		03	60	40	100	3
3	17EC33	Analog Electronics	EC	04		03	60	40	100	4
4	17EC34	Digital Electronics	EC	04		03	60	40	100	4
5	17EC35	Network Analysis	EC	04		03	60	40	100	4
6	17EC36	Engineering Electromagnetics	EC	04		03	60	40	100	4
7	17ECL37	Analog Electronics Lab	EC	01-Hour In 02-Hour Pr		03	60	40	100	2
8	17ECL38	Digital Electronics Lab	EC	01-Hour In 02-Hour Pr		03	60	40	100	2
9	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
		TOTAL			7: 24hours al: 06 hours	25	510	340	850	28

1.Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

#### 2. Audit Course:

III SEMESTER

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics - I, which is 03 contact hours per week.

1	17MATDIP31	Additional Mathematics –I	Maths	03		03	60		60		
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(ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B.Sc candidates)

ATME College of Engineering 13th KM Mysuru-Kanan apura-Bangakore Road Mellahalli Mysuru-570 028 3

#### **B.E Electronics & Communication Engineering / Telecommunication Engineering** (Common to Electronics & Communication and Telecommunication Engineering)

			Teaching	Teaching I	Hours /Week		Examinat	tion		Credits
SI. No	Course Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT41	Engineering Mathematics –IV*	Maths	04		03	60	40	100	4
2	17EC42	Signals and Systems	EC	04		03	60	40	100	4
3	17EC43	Control Systems	EC	04		03	60	40	100	4
4	17EC44	Principles of Communication Systems	EC	04		03	60	40	100	4
5	17EC45	Linear Integrated Circuits	EC	04		03	60	40	100	4
6	17EC46	Microprocessor	EC	03		03	60	40	100	3
7	17ECL47	Microprocessor Lab	EC	01-Hour Inst 02-Hour Pra		03	60	40	100	2
8	17ECL48	Linear ICs and Communication Lab	EC	01-Hour Inst 02-Hour Pra		03	60	40	100	2
9	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
		TOTAL		Theory: 24 Practical: 0	4hours 6 hours	25	510	340	850	28

**IV SEMESTER** 

1

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

#### 2.Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics - II, which is 03 contact hours per week.

1	17MATDIP41	Additional Mathematics –II	Maths	03		03	60		60	
(ii) Lan	guage English (Audi	t Course) be compulsorily studied by all	lateral entry student	ts (except B.Sc can	didates)			XH	/	
								PRI	CIPAL	enng 4
							ATM	E Colleg	e of Engline	alore Roan
							13thKM	Mellahelli	Mysuripore	ering 4 Jakore Road 028

#### **B.E: ELECTRICAL AND ELECTRONICS ENGINEERING CHOICE BASED CREDIT SYSTEM (CBCS)**

#### **III SEMESTER**

SI.	Course Code		Teaching	tment Practical/ Dr			Exami	nation		Credits
No		Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT31	Engineering Mathematics-III (Core)	Mathematics	04	0	03	60	40	100	4
2	17EE32	Electric Circuit Analysis (Core)	EEE	04		03	60	40	100	4
3	17EE33	Transformers and Generators (Core)	EEE	04		03	60	40	100	4
4	17EE34	Analog Electronic Circuits (Core)	EEE	04		03	60	40	100	4
5	17EE35	Digital System Design (Core)	EEE	04		03	60	40	100	4
6	17EE36	Electrical and Electronic Measurements (Foundation course)	EEE	03		03	60	40	100	3
7	17EEL37	Electrical Machines Laboratory -1	EEE	01-Hour Ir 02-Hour Pr		03	60	40	100	2
8	17EEL38	Electronics Laboratory	EEE	01-Hour Ir 02-Hour Pr		03	60	40	100	2
9	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
		TOTAL			: 24hours al: 06 hours	25	510	340	850	28

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

#### 2. Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics - I, which is 03 contact hours per week.

1	17MATDIP31	Additional Mathematics –I	Maths	03		03	60		PRINCIPAL PRINCIPAL Engineering
(ii)	Language English (Au	dit Course) be compulsorily studied by all	lateral entry studen	ts (except B.S	Sc candidates)			I	ATME College of Errs 13thKM Mysuru-Kanakupura-Bahgalore Road Mellahalli Mysuru-570 028

SI.			Teaching	Teaching H	ours /Week		Exam	ination		Credits
No	Course Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT41	Engineering Mathematics-IV (Core)	Mathematics	04		03	60	40	100	4
2	17EE42	Power Generation and Economics (Core)	EEE	04		03	60	40	100	4
3	17EE43	Transmission and Distribution (Core)	EEE	04		03	60	40	100	4
4	17EE44	Electric Motors (Core)	EEE	04		03	60	40	100	4
5	17EE45	Electromagnetic Field Theory (Core)	EEE	04		03	60	40	100	4
6	17EE46	Operational Amplifiers and Linear ICs (Foundation course)	EEE	03		03	60	40	100	3
7	17EEL47	Electrical Machines Laboratory -2	EEE	01-Hour Instru 02-Hour Pract		03	60	40	100	2
8	17EEL48	Op- amp and Linear ICs Laboratory	EEE	01-Hour Instru 02-Hour Pract		03	60	40	100	2
9	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
			TOTAL	Theory: 24h Practical: 06	ours hours	25	510	340	850	28

#### **B.E:** ELECTRICAL AND ELECTRONICS ENGINEERING **CHOICE BASED CREDIT SYSTEM (CBCS)**

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

#### 2. Audit Course:

**IV SEMESTER** 

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics - II, which is 03 contact hours per week.

1	17MATDIP41	Additional Mathematics -II	Maths	03	03	60	PRINCIPLE Engineering
(ii) Lan	nguage English (Audit	Course) be compulsorily studied by all latera	al entry students (e	except B.Sc candi	dates)		13mKM Mysuru Kandi eport 13mKM Mysuru Kandi eport Meilahalli Mysuru-570 028

## B.E. Mechanical Engineering III SEMESTER

	ode		ant a	Teach	ing Hours	/Week		Examin	ation			]
SI. No.	Subject Code	Title	Teaching Department	Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	Credits	
1	17MAT31	Engineering Mathematics – III	Maths	04			03	60	40	100	4	
2	17ME32	Materials Science	ME	04			03	60	40	100	4	
3	17ME33	Basic Thermodynamics	ME	03	02		03	60	40	100	4	
4	17ME34	Mechanics of Materials	ME	03	02		03	60	40	100	4	
	17ME35A/	Metal Casting and Welding	ME									
5		Machine Tools and Operations	ME	04			03	60	40	100	4	
	17ME36A/	Computer Aided Machine Drawing	ME	01		4						
6		Mechanical Measurements and Metrology	ME	03			03	60	40	100	3	
	17MEL37A/	Materials Testing Lab/	ME									
7	17MEL37B	Mechanical Measurements and Metrology Lab	ME	1		2	03	60	40	100	2	
	17MEL38A/	Foundry and Forging Lab	ME	4		_						Nel
8	17MEL38B	Machine Shop/	ME	1		2	03	60	40	100	2	Son
9	17KL/CPH39 /49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	1			01	30	20	50	1	PRINCIPAL Dilege of Engineering Jru-Kanakabura-Bangalore Road halli Mysuri)-570 028
		TOTAL		22/24	04	08/04		510	340	850	ZEANS	ru-Kanakapula-1910028
									L	130	Mella	halli Mysury

B.E.	Mechanical Engineering
	IV SEMESTER

			Teaching	Teac	hing Hours	s /Week		Exam	ination		
Sl. No	Subject Code	Title	Department	Lecte	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	Credits
1	17MAT41	Engineering Mathematics – III	Maths	04			03	60	40	100	04
2	17ME42	Kinematics of Machinery	ME	03	02		03	60	40	100	04
3	17ME43	Applied Thermodynamics	ME	03	02		03	60	40	100	04
4	17ME44	Fluid mechanics	ME	03	02		03	60	40	100	04
5	17ME45A/ 17ME45B	Metal Casting and Welding Machine Tools and Operations	ME ME	- 04			03	60	40	100	04
6	17ME46 A/	Computer Aided Machine Drawing	ME	01		4					
0	17ME46B	Mechanical Measurements and Metrology	ME	03			03	60	40	100	03
	17MEL47A/	Materials Testing Lab/	ME								
7	17MEL47B	Mechanical Measurements and Metrology Lab	ME	1		2	03	60	40	100	02
8	17MEL48A/	Foundry and Forging Lab	ME	1							
	17MEL48B	Machine Shop/	ME	1		2	03	60	40	100	02
9	17KL/CPH39/ 49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	1			01	30	20	50	1
		TOTAL		21/23	06	08/04		510	340	850	28

ATME College of Engineering 13th KM Mysuru-Kanak dura-Bangalore Road Meilahalli Mysuru-570 028 Jus

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

### **B.E: CIVIL ENGINEERING**

SI. No.	Course Code	Title	Teaching Department	Teaching	Hours /Week			Credits		
110.				Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17CV51	Design of RC Structural Elements	Civil Engg.	04		03	60	40	100	1
2	17CV52	Analysis of Indeterminate Structures	Civil Engg.	04		03	60	40		4
3	17CV53	Applied Geotechnical Engineering	Civil Engg.	04		03	60		100	4
4	17CV54	Computer Aided Building Planning and Drawing	Civil Engg.	04		03	60	40	100	4
5	17CV55X	Professional Elective-1	Civil Engg.	03		03			100	4
6	17CV56X	Open Elective-1	Civil Engg.	03			60	40	100	3
7	17CVL57	Geotechnical Engineering Laboratory				03	60	40	100	3
-			Civil Engg.	01-Hour In 02-Hour Pr		03	60	40	100	2
8	17CVL58	Concrete and Highway Materials Laboratory	Civil Engg.	01-Hour In 02-Hour Pr	struction	03	60	40	100	2
			TOTAL	Theory: Practical:	22hours	24	480	320	800	26

d only)

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed, if:

• The candidate has no pre – requisite knowledge.

**V SEMESTER** 

• The candidate has studied similar content course during previous semesters.

• The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13th KM. Mysuru-Kana Mapura-Bangalore Road Mellahalii Mysurii-570 028

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

#### **VI SEMESTER**

## **B.E: CIVIL ENGINEERING**

SI. No.	Course Code	Title	Teaching Department		Teaching Hours /Week		Examination				
1	150110	Const. C. M.		Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	-	
1	17CV61	Construction Management and Entrepreneurship	Civil Engg.	04		03	60	40	100		
2	17CV62	Design of Steel Structural Elements	Civil Engg.	04		03	60			4	
3	17CV63	Highway Engineering	Civil Engg.	04		03	60	40	100	4	
4	17CV64	Water Supply and Treatment Engineering	Civil Engg.	04		03		40	100	4	
5	17CV65X	Professional Elective-2	Civil Engg.	03			60	40	100	4	
6	17CV66X	Open Elective-2	Civil Engg.			03	60	40	100	3	
7	17CVL67	Software Application Laboratory		03		03	60	40	100	3	
8	17CVL68		Civil Engg.	01-Hour Ins 02-Hour Pra	struction	03	60	40	100	2	
5	110 100	Extensive Survey Project /Camp		01-Hour Ins 02-Hour Pra	struction	03	60	40	100	2	
			ΤΟΤΑΙ	Theory:22h Practical: 0	ours	24	480	320	800	26	

Professional	Flective 2		
		<b>Open Elective</b> –	- 2*** (List offered by Civil Engg Board only)
	Solid Waste Management	17CV661	Water Resource Management
1	Matrix Method of Structural Analysis	17CV662	Environmental Protection 126
1	Alternative Building Materials		Environmental Protection and Management
170 000	Ground Improvement Techniques	17CV664	Numerical Methods and Applications Finite Element Analysis
dealership (C) and		1 - 1 - 0 0 0 0 4	Timite Element Analysis

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives).

• The candidate has no pre - requisite knowledge.

The candidate has studied similar content course during previous semesters.

• The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13th KM. Mysuru-Kanakapura-Bangalore Road Mellahalli Mysurij-570 028

Sl. No Course Code		Title	Teaching Department	Teaching	Hours /Week	Examination				Credits
1	17CS51	Management and Entrepreneurship for IT Industry		Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	1
2			CS/IS	04		03	60	40		
2	17CS52	Computer Networks	CS/IS	04		02			100	4
3	17CS53	Database Management System	CS/IS			03	60	40	100	4
4	17CS54	Automata theory and Computability		04		03	60	40	100	4
5	17CS55x		CS/IS	04		03	60	40	100	
5		Professional Elective-1	CS/IS	03		03				4
6	17CS56x	Open Elective-1	CS/IS	03		0.5	60	40	100	3
7	17CSL57	Computer Network Laboratory				03	60	40	100	3
$\rightarrow$			CS/IS	01-Hour In 02-Hour Pr		03	60	40	100	
3	17CSL58	DBMS Laboratory with mini project	CS/IS	01-Hour Ins					100	2
				02-Hour Pra	actical	03	60	40	100	2
			TOTAL	Theory: 2 Practical: 0		24	480	320	800	26

## **B.E:** Computer Science and Engineering

Professiona	Floctive 1		
		Open Electiv	ve - 1*** (List offered by CSE Board only)
	Object Oriented Modeling and Design	17CS561	Programming in JAVA (Not for CSE/ISE students)
	Introduction to Software Testing	17CS562	Artificial Intelligence
17CS553	Advanced JAVA and J2EE	17CS563	
17CS554	Advanced Algorithms		Embedded Systems
		17CS564	Dot Net framework for application development;
		17CS565	Cloud Computing (Not for CSE/ISE students)

PRINCIPAL ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Road Mollahelli Mysuru-570 028

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives).

• The candidate has no pre – requisite knowledge.

**V SEMESTER** 

The candidate has studied similar content course during previous semesters.

The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

SI. No	Course Code	Title	Teaching Department		ing Hours Veek		Exami	nation		Credits
				Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17CS61	Cryptography, Network Security and Cyber Law	CS/IS	04		03	60	40	100	4
2	17CS62	Computer Graphics and Visualization	CS/IS	04		03	60	40	100	4
3	17CS63	System Software and Compiler Design	CS/IS	04		03	60	40	100	4
4	17CS64	Operating Systems	CS/IS	04		03	60	40	100	4
5	17CS65x	Professional Elective-2	CS/IS	03		03	60	40	100	3
6	17CS66x	Open Elective-2	CS/IS	03		03	60	40	100	3
7	17CSL67	System Software and Operating System Laboratory	CS/IS	01-Hour Ins		03	60	40	100	2
8	17CSL68	Computer Graphics Laboratory with mini project	CS/IS	02-Hour Pra 01-Hour Ins 02-Hour Pra	struction	03	60	40	100	2
			TOTAL	Theory:221 Practical: 0	nours	24	480	320	800	26

## **B.E:** Computer Science and Engineering

the second se	l Elective-2	Open Electiv	ve - 2*** (List offered by CSE Board only)	
7CS651	Data Mining and Data Warehousing	17CS661	Not 1 A dist offered by CSE Board only)	
'CS652	Software Architecture and Design Patterns		Mobile Application Development	1
CS653	Operations research	17CS662	Big Data Analytics (Not for CSE/ISE students)	
CS654		17CS663	Wireless Networks and Mobile computing	
03034	Distributed Computing system	17CS664	Python Application Programming	
		17CS665	Service Oriented Architecture	PF
		17CS666	Multicore Architecture and Programming	

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives).

• The candidate has no pre – requisite knowledge.

VI SEMESTER

• The candidate has studied similar content course during previous semesters.

• The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13thKM Mysuru-Kanakepura-Bangalore Roan Mellahalii Mysurii-570 028

### **B.E.: Electronics & Communication Engineering**

SI.	Course Code	Title	Teaching Department	Teaching /Week	g Hours	Examination				Credits
No	Course Coue			Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17ES51	Management and Entrepreneurship Development	EC	04		03	60	40	100	4
2	17EC52	Digital Signal Processing	EC	04		03	60	40	100	4
3	17EC53	Verilog HDL	EC	04		03	60	40	100	4
4	17EC54	Information Theory & Coding	EC	04		03	60	40	100	4
5	17EC55X	Professional Elective-1	EC	03		03	60	40	100	3
6	17EC56X	Open Elective-1	EC	03		03	60	40	100	3
7	17ECL57	DSP Lab	EC	01-Hour I 02-Hour F		03	60	40	100	2
8	17ECL58	HDL Lab	EC	01-Hour I 02-Hour P		03	60	40	100	2
		TOTAL		Theory: Practical:		24	480	320	800	26

Professiona	al Elective-1	Open Electi	ive – 1*** (List offered by EC/TC Board only)
17EC551	Nanoelectronics	17EC561	Automotive Electronics
17EC552	Switching & Finite Automata Theory	17EC562	Object Oriented Programming Using C++
17EC553	Operating System	17EC563	8051 Microcontroller
17EC554	Electrical Engineering Materials		
17EC555	MSP430 Microcontroller		

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed, if:

• The candidate has no pre - requisite knowledge.

**V SEMESTER** 

• The candidate has studied similar content course during previous semesters.

• The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13th Mysuru-Kanakapura-Bangalore Road Mellahalli Mysurij-570 028

5

## **B.E.: Electronics & Communication Engineering**

SI.	Course	Title	Teaching Department		ng Hours Veek		Exami	nation		Credits
No	Code			Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17EC61	Digital Communication	EC	04		03	60	40	100	4
2	17EC62	ARM Microcontroller & Embedded Systems	EC	04		03	60	40	100	4
3	17EC63	VLSI Design	EC	04		03	60	40	100	4
4	17EC64	Computer Communication Networks	EC	04		03	60	40	100	4
5	17EC65X	Professional Elective-2	EC	03		03	60	40	100	3
6	17EC66X	Open Elective-2	EC	03		03	60	40	100	3
7	17ECL67	Embedded Controller Lab	EC	01-Hour In 02-Hour Pr		03	60	40	100	2
8	17ECL68	Computer Networks Lab	EC	01-Hour In 02-Hour Pr		03	60	40	100	2
		TOTAL		Theory: 2 Practical: (		24	480	320	800	26

Professional Elective-2	<b>Open Elective – 2*** (List offered by EC/TC Board only)</b>
17EC651 Cellular Mobile Communication	17EC661 Data Structures Using C++
17EC652 Adaptive Signal Processing	17EC662 Power Electronics (not for E&C students)
17EC653 Artificial Neural Networks	17EC663 Digital System Design using Verilog
17EC654 Digital Switching Systems	Digital System Design using Vernog
17EC655 Microelectronics	

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed, if:

The candidate has no pre - requisite knowledge.

**VI SEMESTER** 

The candidate has studied similar content course during previous semesters.

The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13th KM Mysuru-Kanak apura Bangalore Room Mellahetti Mysuru-570 028

6

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) B.E: ELECTRICAL AND ELECTRONICS ENGINEERING CHOICE BASED CREDIT SYSTEM (CBCS)

#### **V SEMESTER**

SI. No	Course Code	Title	Teaching Department	Teaching	g Hours /Week		Exami	nation		Credits
INU				Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17EE51	Management and Entrepreneurship	EEE	04		03	60	40	100	4
2	17EE52	Microcontroller(Core)	EEE	04		03	60	40	100	4
3	17EE53	Power Electronics(Core)	EEE	04		03	60	40	100	
4	17EE54	Signals and Systems(Core)	EEE	04		03	60	40	100	4
5	17EE55X	Professional Elective – I	EEE	03		03	60	40		4
6	17EE56Y	Open Elective - I	EEE	03		03			100	3
7	17EEL57					03	60	40	100	3
	17EEL57	Microcontroller Laboratory	EEE	01-Hour In 02-Hour P		03	60	40	100	2
8	17EEL58	Power Electronics Laboratory	EEE	01-Hour Ir 02-Hour P	struction	03	60	40	100	2
			TOTAL	Theory: Practical:	22hours	24	480	320	800	26

		Elective-1	<b>Open Electiv</b>	e – 1*** (List offered by EEE Board only)
17EI	E551	Introduction to Nuclear Power		Electronic Communication systems
17EI	E552	Electrical Engineering Materials		Programmable Logic controllers
17EI		Estimating and Costing		
1.000			 1/EE303	Renewable Energy Systems
17EF	E554	Special Electrical Machines	17EE564	Business Communication

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives).

The candidate has no pre -requisiteknowledge.

The candidate has studied similar content course during previous semesters.

• The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s). Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13mm Mysuru-Kanak Apura-Bangalore Road Mallahalli Mysuru-570 028

#### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) **B.E:** ELECTRICAL AND ELECTRONICS ENGINEERING **CHOICE BASED CREDIT SYSTEM (CBCS)**

#### **VI SEMESTER**

SI.	Course	Title	Teaching Department		ng Hours Veek		Examii	nation		Credits
No	Code			Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17EE61	Control Systems(Core)	EEE	04		03	60	40	100	4
2	17EE62	Power System Analysis – 1(Core)	EEE	04		03	60	40	100	4
3	17EE63	Digital Signal Processing(Core)	EEE	04		03	60	40	100	4
4	17EE64	Electrical Machine Design(Core)	EEE	04		03	60	40	100	4
5	17EE65X	Professional Elective – II	EEE	03		03	60	40	100	3
6	17EE66Y	Open Elective - II	EEE	03		03	60	40	100	3
7	17EEL67	Control System Laboratory	EEE	01- Hour In 02- Hour Pr		03	60	40	100	2
8	17EEL68	Digital Signal Processing Laboratory	EEE	01- Hour In 02- Hour Pr		03	60	40	100	2
			TOTAL	Theory:22 Practical:		Core Course	480	320	800	26

Professional		Open Elective	- 2*** (List offered by EEE Board only)
17EE651	Computer Aided Electrical Drawing	17EE661	Artificial Neural Networks and Fuzzy logic
17EE652 Advanced Power Electronics		17EE662	Sensors and Transducers
17EE653	Energy Audit and Demand side Management	17EE663	Batteries and Fuel Cells for Commercial, Military and Space Applications
17EE654	Solar and Wind Energy	17EE664	Industrial Servo Control Systems

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed, if:

• The candidate has no pre – requisiteknowledge.

· The candidate has studied similar content course during previous semesters.

• The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied as Professional elective(s).

. A similar course, under any category, is prescribed in the higher semesters.

Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 U28

#### **B.E.** Mechanical Engineering

			Teach	ing Hour	s /Week		Examinatio	n		
SI. No	Subject Code	Title	Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	Credits
1	17ME51	Management and Engineering Economics	3	2	0	03	60	40	100	4
2	17ME52	Dynamics of Machinery	3	2	0	03	60	40	100	4
3	17ME53	Turbo Machines	3	2	0	03	60	40	100	4
4	17ME54	Design of Machine Elements - I	3	2	0	03	60	40	100	4
5	17ME55X	Professional Elective-I	3	0	0	03	60	40	100	3
6	17ME56X	Open Elective-I	3	0	0	03	60	40	100	3
7	17MEL57	Fluid Mechanics & Machinery Lab	1	0	2	03	60	40	100	2
8	17MEL58	Energy Lab	1	0	2	03	60	40	100	2
		TOTAL	20	08	04		480	320	60	40
	Professiona	al Elective-I			Open E	Elective-I			I	
	17ME551 Refrigeration and Air-conditioning				17ME5		n Techniques	5		
	17ME552	Theory of Elasticity			17ME5		Environment			
	17ME553	Human Resource Management			17ME5		and Robotic			1310
	17ME554	Non Traditional Machining			17ME5	64 Project Man	agement			130

#### **V SEMESTER**

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Open Elective: Electives from other technical and/or emerging subject areas.

PRINCIPAL TME College of Engineering KM Mysuru-Kanak abura-Bangalore Road Mellahalli Mysuru-570 028

#### **B.E.** Mechanical Engineering

-	G 11				hing Hours		F	xamina	tion		Credits
il. No	Subject C	ode Titl	e	Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	
1	17ME6	1 Finite Elemen	t Analysis	3	2	0	03	60	40	100	4
2	17ME6	2 Computer integrated	d Manufacturing	4	0	0	03	60	40	100	4
3	17ME6	3 Heat Tra	nsfer	3	2	0	03	60	40	100	4
4	17ME6	4 Design of Machin	e Elements -II	3	2	0	03	60	40	100	4
5	17ME65	X Professional I	Elective-II	3	0	0	03	60	40	100	3
6	17ME66	X Open Elec	tive-II	3	0	0	03	60	40	100	3
7	17MEL6	7 Heat Trans	fer Lab	1	0	2	03	60	40	100	2
8	17MEL6	8 Modeling and Anal	ysis Lab(FEA)	1	0	2	03	60	40	100	2
		TOTAL		21	6	04		480	320	60	40
Prof	fessional El	ective-II			Open Electi	ive-II			]		
17M	IE651 (	Computational Fluid Dynam	ics	1	17ME661	Energy A	y Auditing				0
17M	7ME652 Mechanics of Composite Materials		1	17ME662	Industrial	Safety			ATM	PRI	
17M	17ME653 Metal Forming		1	17ME663	Maintena	nce Engineering			ATM	E Colle	
17M	IE654 T	ool Design	1	17ME664	Total Qua	lity Management			ATMI 13th KM	Mysuru-K Aeilahalli	
17M	E655 A	utomobile Engineering							•	Actionation	

**VI SEMESTER** 

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Open Elective: Electives from other technical and/or emerging subject areas.

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## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

## **B.E: CIVIL ENGINEERING**

#### **VII SEMESTER**

SL No.	<b>Course Code</b>	Title	Teaching Department	Teachin	g Hours /Week		Examin	ation		C III
1	17CV71		- opur entent	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE	Total	Credits
1	1/CV/1	Municipal and Industrial Waste Water Engineering	Civil Engg.	04	8	03	60	Marks 40	Marks	
2	17CV72	Design of RCC and Steel Structures	Civil Engg.	04				40	100	4
3	17CV73					03	60	40	100	4
4	17CV74X	Hydrology and Irrigation Engineering	Civil Engg.	04		03	60	40	100	4
		Professional Elective-3	Civil Engg.	03		03	60	40	100	
5	17CV75X	Professional Elective-4	Civil Engg.	03		02			100	3
6	17CVL76	En	Civil Engg.			03	60	40	100	3
	1101270	Environmental Engineering Laboratory	Civil Engg.	01-Hour In 02-Hour Pi	struction ractical	03	60	40	100	2
7	17CVL77	Computer Aided Detailing of Structures	Civil Engg.	01-Hour In	struction					
				02-Hour Pr	ractical	03	60	40	100	2
8	17CVP78	Project Work Phase-I + Project work Seminar	Civil Engg.		03			100		
		TOTAL	2.88.	Th				100	100	2
	ofessional Electi			Theory:18 Practical an 09 hours	hours nd Project:	21	420	380	800	24

	17CV741	Design of Bridges	Professional	Elective-4	
		Ground Water & Hydraulics	17CV751	Urban Transportation and Planning	1.2
	17CV743	Design Concept of Building Services	17CV752	Prefabricated Structures	Aur
	17CV744	Structural Dynamics	17CV753		O DAL
			1/CV/54	Reinforced Earth Structures	PRINCIPAL
ct	Phase – I and Pr	oject Seminar: Comprises of Literature Survey, Problem identific	antion Oli	ATME	PRINCIPAL College of Engineering Ansuru-Kanakapura-Bangalore Roa
		Literature Survey, De-11	cation, Objectiv	ves and Methodology CIE mortes about 1	MUSULU-NOILEN 570 020

1. Project Phase – I and Project Seminar: Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering uni-570 028 Literature Survey, Problem identification, Objectives and Methodology and Seminar presentation skill.

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI Scheme of Teaching and Examination 2017-2018 Choice Based Credit System (CBCS) VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

## **B.E: CIVIL ENGINEERING**

#### **VIII SEMESTER**

Sl. No.	Course Code	Title	Teaching Department	Teachin	g Hours /Week		Examin	ation		Credits
1	17CV81	Quantity Surveying and Contracts		Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
2	17CV82	Management Design of Pre Stressed Concrete Elements	Civil Engg.	4	-	3	60	40	100	4
3	17CV83X	Professional Elective-5	Civil Engg.	4	-	3	60	40	100	4
4	17CV84	Internship/ Professional	Civil Engg.	3	-	3	60	40	100	3
5	17CVP85	Practice Project Work-II	Civil Engg.	Indust	ry Oriented	3	50	50	100	2
5	17CVS86		Civil Engg.	-	6	3	100	100	200	6
		Seminar on current trends in Engineering and Technology	Civil Engg.	-	4	-	-	100	100	1
		TOTAL		Theory: 1 Project an 10 hours	l hours d Seminar:	15	330	370	700	20

	Professiona	I Elective -5
	17CV831	Earthquake Engineering
	17CV832	Hydraulic Structures
	17CV833	Pavement Design
L	17CV834	Advanced Foundation Design

1. Internship/ Professional Practice: 4 Weeks internship to be completed between the (VI and VII semester vacation) and/or (VII and VIII semester vacation) period ege of Engineering ATME Confege of Engineering 13th KM. Mysuru-S70 028 Mellahalli Mysuru-570 028

## **B.E:** Computer Science and Engineering

#### **VII SEMESTER**

SI.			Teaching	Teaching	g Hours /Week		Examination			
No	Course Code		Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	Credits
1	17CS71	Web Technology and its applications	CS/IS	04		03	60	40	100	4
2	17CS72	Advanced Computer Architectures	CS/IS	04		03	60	40	100	4
3	17CS73	Machine Learning	CS/IS	04		03	60	40	100	4
4	17CS74x	Professional Elective 3	CS/IS	03		03	60	40	100	3
5	17CS75x	Professional Elective 4	CS/IS	03		03	60	40	100	3
6	17CSL76	Machine Learning Laboratory	CS/IS	01-Hour Ir 02-Hour Pr		03	60	40	100	2
7	17CSL77	Web Technology Laboratory with mini project	CS/IS	01-Hour In 02-Hour Pr		03	60	40	100	2
8	17CSP78	Project Work Phase-I + Project work Seminar	CS/IS		03			100	100	2
		TOTAL		Theory:18 Practical a 09 hours	hours nd Project:	21	420	380	800	24

Profession	al Elective-3	Professional 1	Elective-4
17CS741	Natural Language Processing	17CS751	Soft and Evolutionary Computing
	Cloud Computing and its Applications	17CS752	Computer Vision and Robotics
17CS743	Information and Network Security	17CS753	Digital Image Processing
	Unix System Programming	17CS754	Storage Area Networks
	0 0	1100101	Storage Area Networks

PRINCIPAL PRINCIPAL TME College of Engineering MKM Mysuru-Kanak-apura-Bangalore Rear

1. Project Phase – I and Project Seminar: Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering

## **B.E:** Computer Science and Engineering

VIII	SEMES	TER

SI.	Course		Teaching				Examination			
No	Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	Credits
1	17CS81	Internet of Things and Applications	CS/IS	4	-	3	60	40	100	4
2	17CS82	Big Data Analytics	CS/IS	4	-	3	60	40	100	4
3	17CS83X	Professional Elective-5	CS/IS	3	-	3	60	40	100	3
4	17CS84	Internship/ Professional Practice	CS/IS	Indus	try Oriented	3	50	50	100	2
5	17CSP85	Project Work-II	CS/IS	-	6	3	100	100	200	6
6	17CSS86	Seminar	CS/IS	-	4	-	-	100	100	1
		TOTAL		Theory: 1 Project au 10 hours	1 hours nd Seminar:	15	330	370	700	20

Professiona	al Elective -5	
17CS831	High Performance Computing	
17CS832	User Interface Design	
17CS833	Network management	
17CS834	System Modeling and Simulation	

1. Internship/ Professional Practice: 4 Weeks internship to be completed between the (VI and VII semester vacation) and/or (VII and VIII semester vacation) period.

## **B.E.: Electronics & Communication Engineering**

**VII SEMESTER** 

SI.	Course Code	Title	Teaching Department	Teach /\	ing Hours Veek		Examin	ation		Credits
No		The		Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	1
1	17EC71	Microwave and Antennas	EC	04		03	60	40	100	4
2	17EC72	Digital Image Processing	EC	04		03	60	40	100	4
3	17EC73	Power Electronics	EC	04		03	60	40	100	4
4	17EC74X	Professional Elective-3	EC	03		03	60	40	100	3
5	17EC75X	Professional Elective-4	EC	03		03	60	40	100	3
6	17ECL76	Advanced Communication Lab	EC	01-Hour In 02-Hour P		03	60	40	100	2
7	17ECL77	VLSI Lab	EC	01-Hour Ir 02-Hour P		03	60	40	100	2
8	17ECP78	Project Work Phase–I + Project work Seminar	EC		03		-	100	100	2
		TOTAL		Theory:18 Practical a Project: 09	nd	21	420	380	800	24

Professional	Elective-3	Professional	Elective-4
17EC741	Multimedia Communication	17EC751	DSP Algorithms and Architecture
17EC742	Biomedical Signal Processing	17EC752	IOT and Wireless Sensor Networks
17EC743	Real Time Systems	17EC753	Pattern Recognition
17EC744	Cryptography	17EC754	Advanced Computer Architecture
17EC745	CAD for VLSI	17EC755	Satellite Communication

1. Project Phase – I and Project Seminar: Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering Literature Survey, Problem identification, Objectives and Methodology and Seminar presentation skill.

ATME College of Engineering 13th Km. Mysuru-Kanakapura-Bangalore Roart Mellahalli Mysuru-570 028

7

### **B.E.: Electronics & Communication Engineering**

SI.	Course		Teaching Department			Examination				Credits
No	Code	Title		Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17EC81	Wireless Cellular and LTE 4G Broadband	EC	4	-	3	60	40	100	4
2	17EC82	Fiber Optics & Networks	EC	4	-	3	60	40	100	4
3	17EC83X	Professional Elective-5	EC	3	-	3	60	40	100	3
4	17EC84	Internship/Professional Practice	EC	Industr	y Oriented	3	50	50	100	2
5	17ECP85	Project Work	EC	-	6	3	100	100	200	6
6	17ECS86	Seminar	EC	-	4	-	-	100	100	1
		TOTAL		Project a	11 hours and : 10 hours	15	330	370	700	20

#### **VIII SEMESTER**

Profession	al Elective -5	
17EC831	Micro Electro Mechanical Systems	
17EC832	Speech Processing	
17EC833	Radar Engineering	
17EC834	Machine learning	
17EC835	Network and Cyber Security	

1. Internship/ Professional Practice: 4 Weeks internship to be completed between the (VI and VII semester vacation) and/or (VII and VIII semester vacation) period.

ATME College of Engineering 13th:KM. Mysuru-Kanakapura-Bangalore Road Mellahelli Mysuru-570 028

8

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#### Teaching **Teaching Hours** /Week Examination SI. Credits Department **Course Code** Title No Practical/ Duration SEE CIE Total Theory Drawing in hours Marks Marks Marks 1 04 17EE71 Power System Analysis - 2(Core) EEE 03 60 40 100 4 2 17EE72 04 Power System Protection(Core) EEE 03 60 40 100 4 3 04 17EE73 High Voltage Engineering(Core) EEE 03 60 40 100 4 4 17EE74X 03 Professional Elective - III EEE 03 60 40 100 3 5 03 17EE75Y Professional Elective - IV EEE 03 60 40 100 3 **01-Hour** Instruction 6 17EEL76 2 Power system Simulation Laboratory EEE 03 60 40 100 **02-Hour Practical 01-Hour** Instruction 7 2 17EEL77 Rely and High Voltage Laboratory 03 60 40 100 EEE **02-Hour Practical** 8 17EEP78 Project Work Phase-I + Project work Seminar 03 EEE ---100 100 ---2 TOTAL **Theory:18 hours** 21 420 380 800 **Practical and Project:** 24 **09 hours**

<b>B.E:</b> ELECTRICAL AND ELECTRONICS EN	NGINEERING
<b>CHOICE BASED CREDIT SYSTEM (</b>	CBCS)

**VII SEMESTER** 

	l Elective-3	Professional Elective-4		
17EE741	Advanced Control Systems	17EE751	FACTs and HVDC Transmission	
17EE742	Utilization of Electrical Power	17EE752	Testing and Commissioning of Power System Apparatus	
17EE743	Carbon Capture and Storage	17EE753	Spacecraft Power Technologies	
17EE744	Power System Planning	17EE754	Industrial Heating	

TME College of Engineering 13thKM Mysuru-Kanakapura-Bangaiore Ross Mellahalli Mysuru-570 028 1. Project Phase – I and Project Seminar: Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering Literature Survey, Problem identification, Objectives and Methodology and Seminar presentation skill.

<b>B.E:</b> ELECTRICAL AND ELECTRONICS EN	NGINEERING
<b>CHOICE BASED CREDIT SYSTEM (</b>	(CBCS)

**VIII SEMESTER** 

GI	G		Teaching Teaching Hours /Week		Examination				Credits	
SI. No	Course Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17EE81	Power System Operation and Control (Core)	EEE	4	-	3	60	40	100	4
2	17EE82	Industrial Drives and Applications(Core)	EEE	4	-	3	60	40	100	4
3	17EE83X	Professional Elective-5	EEE	3	-	3	60	40	100	3
4	17EE84	Internship/ Professional Practice (Core)	EEE	Industry Oriented		3	50	50	100	2
5	17EEP85	Project Work-II( Core)	EEE	-	6	3	100	100	200	6
6	17EES86	Seminar (Core)	EEE	-	4	-	-	100	100	1
	TOTAL				11 hours and Seminar:	15	330	370	700	20

Professional Elective -5					
17EE831	Smart Grid				
17EE832	Operation and Maintenance of Solar Electric				
	Systems				
17EE833	Integration of Distributed Generation				
17EE834	Power System in Emergencies				

ATME College of Engineering 13thtkm Mysuru-Kanakapura Bangalore Roa

1. Internship/ Professional Practice: 4 Weeks internship to be completed between the (VI and VII semester vacation) and/or (VII and VIII semester vacation) period.

# Visvesvaraya Technological University, Belagavi **B.E. in Mechanical Engineering**

2017- Scheme of Teaching and Examination

Choice Based Credit System (CBCS)

#### **VII Semester**

.No	Subject	Title	Teaching Hours /Week			Examination				s
SI.	couc	mue	Lecture	Tutorial P	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total	Credits
1	17ME71	Energy Engineering	3	2	0	03	60	40	<b>Marks</b> 100	
2	17ME72	Fluid Power Systems	1				00	40	100	4
		i lata i ower bystems	4	0	0	03	60	40	100	4
3	17ME73	Control Engineering	3	2	0	03	60	40	100	
4	17ME74X	Professional Elective - III	3	0	0	03				4
5	17ME75X			Ū	0	03	60	40	100	3
5	1/ME/5X	Professional Elective-IV	3	0	0	03	60	40	100	3
6	17MEL76	Design Lab	1					10	100	3
		Debigit Lub	1	0	2	03	60	40	100	2
7	17MEL77	CIM Lab	1	0	2	03	60	40		
8	17MEP78	Project Phase – I				00	00	40	100	2
		rioject Phase – I	-	-	-	-		100	100	2
		TOTAL	18	04	04	24				-
			10	04	04	21	420	380	800	24

	Professional Elective-III		Professional Elective-IV		
17ME741	Design of Thermal Equipment's	17ME751 Automotive Electronics			
17ME742	Tribology	17ME752	Fracture Mechanics		
17ME743	Financial Management	17ME753	Mechatronics		
17ME744	Design for Manufacturing	17ME754			
	Smart Materials & MEMS	1/11/54	Advanced Vibrations		

 Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete TME College of Engineering the requirement of aprogramme in a said discipline of study.
 Professional Elective: Elective relevant to choose a student to choose a st Mellahalli Mysurij-570 828

2. Professional Elective: Elective relevant to chosen specialization/ branch
- -

VIII Se	emester	<b>B.E</b> . 2017-	<b>in Mech</b> Scheme of	<b>anical E</b> Teaching a	niversity, Bo <b>ngineerii</b> and Examina stem (CBCS)	<b>ng</b> ntion				
No	Cubicat		Teac	ning Hou	rs /Week		Examin	ation		S
SI. I	Subject Code	Title	L	Т	Р	CIE Marks	Total Marks	Credits		
1	17ME81	Operations Research	3	2	0	(Hours) 03	Marks 60	40	100	-
2	17ME82	Additive Manufacturing	4	0	0	03	60	40		4
3	17ME83X	Professional Elective - V	3	0	0	03	60	40	100	4
4	17ME84	Internship / Professional Practice	Indu	stry Orie	nted	03	50		100	3
5	17ME85	Project Phase – II	-	bery offer	6	03	100	50	100	2
6	17MES86	Seminar	-				100	100	200	6
		TOTAL	TOTAL 10 02 10 100 100						1 20	

	Professional Elective-V
15ME831	Cryogenics
15ME832	Experimental Stress Analysis
15ME833	Theory of Plasticity
15ME834	Green Manufacturing
15ME835	Product life cycle management

- 1. **Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of aprogramme in a said discipline of study.
- 2. Professional Elective: Elective relevant to chosen specialization/ branch
- 3. Internship / Professional Practice: To be carried out between 6th& 7th semester vacation or 7th& 8th semester vacation

PRINCIPAL ATME College & Engineering 13th KM Mysuru-Kanakapula-Bangalore Road Meilahalli Mysuru-570 028

#### **I SEMESTER B.E./B.TECH.**

	1		1		1			PHYS	SICS GROU	P
SI.	Subject			Taashina		Theory	Exar	nination Ma	rks	Credits
No.	Code	Subject	1	Teaching Department	Board	/Lab/ Drawing (Hrs/ Week)	Th./Pr.	I.A.	Total	
1	15MAT11	Engineering Maths-I	BS	Maths	Basic Sc.	4 (T)	80	20	100	4
2	15PHY12	Engineering Physics	BS	Physics	Basic Sc.	4 (T)	80	20	100	4
3	15CIV13	Elements of Civil Engg. & Mechanics	ES	Civil Engg.	Civil Engg.	4 (T)	80	20	100	4
4	15EME14	Elements of Mechanical Engg.	ES	Mech. Engg.	Mech. Engg.	4 (T)	80	20	100	4
5	15ELE15	Basic Electrical Engg.	ES	E & E	E&E	4 (T)	80	20	100	4
6	15WSL16	Workshop Practice	ES	Mech., Auto, IP, IEM, Mfg. Engg.	Mech. Engg.	3(2 hrs lab+ 1 hr instruction )	80	20	100	2
7	15PHYL17	Engg. Physics Lab	BS	Physics	Basic Sc.	3(2 hrs lab+ 1 hr instruction)	80	20	100	2
8	15CPH18	Constitution of India, Professional Ethics and Human Rights (CPH)	MNC	Humanities		2 (Tutorial)	40	10	50	
9		Language (Kan.)	Mandatory Learning	Humanities		1 (T)	-	-	-	
						29	600	150	750	24

Note: The Subjects Kannada and English are Audit Courses

PRINCIPAL ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Rood Mellahelli Mysuru-570 028

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#### **I SEMESTER B.E./B.TECH.**

					Cl	<b>HEMISTRY GROU</b>	JP			
SI.	Subject	Subject		Teaching	Board	Theory /Lab/ Drawing (Hrs/	Exar	nination Ma	rks	Credits
No.	Code			Department	20010	Week)	Th./Pr.	I.A.	Total	
1	15MAT11	Engineering Maths-I	BS	Maths	Basic Sc.	4 (T)	80	20	100	4
2	15CHE12	Engineering Chemistry	BS	Chemistry	Basic Sc.	4 (T)	80	20	100	4
3	15PCD13	Programming in C & Data Structures	ES	Any Engineering Department	CSE	4 (T)	80	20	100	4
4	15CED14	Computer Aided Engineering Drawing	ES	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	6 (2I+ 4P)	80	20	100	4
5	15ELN15	Basic Electronics	ES	E & C / E & E / TC / IT	E & C	4 (T)	80	20	100	4
6	15CPL16	Computer Programming Lab	ES	Any Engineering Department	CSE	3(2 hrs lab+ 1 hr Tutorial )	80	20	100	2
7	15CHEL17	Engg. Chemistry Lab	BS	Chemistry	Basic Sci.	3(2 hrs lab+ 1 hr Tutorial )	80	20	100	2
8	15CIV18	Environmental Studies	MNC	Civil / Environmental	Civil	2 (Tutorial)	40	10	50	
9		Language (Eng.)	Mandatory Learning	Humanities		1 (T)	-	-	-	-
					Total	31	600	150	750	24

Note: The Subjects Kannada and English are Audit Courses

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

		Cabinet		Dept.	Teaching /We			Exa	mination		
Sl. No	Subject Code	Subject (Course)	Title	Teaching D	Theory	Practical/ Drawing	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15MAT31	Core Subject	Engineering Mathematics-III	Mathe matics	04		03	20	80	100	4
2	15EE32	Core Subject	Electric Circuit Analysis	EEE	04		03	20	80	100	4
3	15EE33	Core Subject	Transformers and Generators	EEE	04		03	20	80	100	4
4	15EE34	Core Subject	Analog Electronic Circuits	EEE	04		03	20	80	100	4
5	15EE35	Core Subject	Digital System Design	EEE	04		03	20	80	100	4
6	15EE36	Foundation Course	Electrical and Electronic Measurements	EEE	04		03	20	80	100	4
7	15EEL37	Laboratory	Electrical Machines Laboratory -1	EEE	01-Hour Inst 02-Hour Pra		03	20	80	100	2
8	15EEL38	Laboratory	Electronics Laboratory	EEE	01-Hour Inst 02-Hour Pra		03	20	80	100	2
				TOTAL	Theory:24 I Practical: 0		24	160	640	800	28

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. FoundationCourse: The courses based upon the content that leads to Knowledge enhancement.

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysurij-570 028

# B.E. Computer Science & Engineering/ B.E. Information Science & Engineering

SI.	Subject			ing Hours Veek	<i>b</i> .	Exami	ination		Credits
No	Code	Title	Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT31	Engineering Mathematics - III	04	-	03	80	20	100	4
2	15CS32	Analog and Digital Electronics	04	-	03	80	20	100	4
3	15CS33	Data Structures and Applications	04		03	80	20	100	4
4	15CS34	Computer Organization	04		03	80	20	100	4
5	15CS35	Unix and Shell Programming	04	1997 <del>-</del>	03	80	20	100	4
6	15CS36	Discrete Mathematical Structures	04		03	80	20	100	4
7	15CSL37	Analog and Digital Electronics Laboratory		1I+2P	03	80	20	100	2
8	15CSL38	Data Structures Laboratory		1I+2P	03	80	20	100	2
		TOTAL	24	6	24	640	160	800	28

Note: 'I' Stands for Instruction Hours and 'P' for practical Hours

III SEMESTED

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysurij-570 028

# B.E. Computer Science & Engineering/ B.E. Information Science & Engineering

			Teaching H	ours /Week	1	Ex	amination	a state of the sta	Credits
Sl. No	Subject Code	Title	Theory	Practical/ Drawing	Duration	Theory/ Practica I Marks	I.A. Marks	Total Marks	
1	15MAT41	<b>Engineering Mathematics - IV</b>	04	//	03	80	20	100	4
2	15CS 42	Software Engineering	04		03	80	20	100	4
3	15C843	Design and Analysis of Algorithms	04		03	80	20	100	4
4	15CS 44	Microprocessors and Microcontrollers	04		03	80	20	100	4
5	15C845	Object Oriented Concepts	04		03	80	20	100	4
6	15CS46	Data Communication	04	-	03	80	20	100	4
7	15CSL47	Design and Analysis of Algorithm Laboratory		1I+2P	03	80	20	100	2
8	15CSL48	Microprocessors Laboratory		1I+2P	03	80	20	100	2
		TOTAL	24	06	24	640	160	800	28

Note: 'I' Stands for Instruction Hours and 'P' for practical Hours

ATME College of Engineering. 13th KM Mysuru-Kanakapura-Bangalore Road Mellahelli Mysuru-570-028

### SCHEME OF TEACHING AND EXAMINATION B.E Electronics & Communication Engineering / Telecommunication Engineering (Common to Electronics & Communication and Telecommunication Engineering)

				ing Hours Veek		Examin	ation		Credits
S1. No	Subject Code	Title	Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT31	Engineering Mathematics –III*	04		03	80	20	100	4
2	15EC32	Analog Electronics	04		03	80	20	100	4
3	15EC33	Digital Electronics	04		03	80	20	100	4
4	15EC34	Network Analysis	04		03	80	20	100	4
5	15EC35	Electronic Instrumentation	04		03	80	20	100	4
б	15EC36	Engineering Electromagnetics	04		03	80	20	100	4
7	15ECL37	Analog Electronics Lab		1I+2P	03	80	20	100	2
8	15ECL38	Digital Electronics Lab		1I+2P	03	80	20	100	2
	I	TOTAL	24	6	24	640	160	800	28

III SEMESTER

\*Additional course for Lateral entry students only:

1	15MATDIP31	Additional Mathematics - I	03	03	80	 80	

### SCHEME OF TEACHING AND EXAMINATION B.E Electronics & Communication Engineering / Telecommunication Engineering (Common to Electronics & Communication and Telecommunication Engineering)

01	Carbinat			ng Hours Veek		Examinat	tion		Credit	
S1. No	Subject Code	Title	Theory	Practical / Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks		
1	15MAT41	Engineering Mathematics –IV*	04		03	80	20	100	4	
2	15EC42	Microprocessor	04		03	80	20	100	4	
3	15EC43	Control Systems	04		03	80	20	100	4	
4	15EC44	Signals and Systems	04		03	80	20	100	4	
5	15EC45	Principles of Communication Systems	04		03	80	20	100	4	
6	15EC46	Linear Integrated Circuits	04		03	80	20	100	4	
7	15ECL47	Microprocessor Lab		1I+2P	03	80	20	100	2	
8	15ECL48	Linear ICs and Communication Lab		1I+2P	03	80	20	100	2	
		TOTAL	24	06	24	640	160	800	28	

\*Additional course for Lateral entry students only:

IV SEMESTED

1 IJMAIDIF41 Additional Mathematics - II	1 15	5MATDIP41	Additional Mathematics - II	03		03	80		80	
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PRINCIPAL ATME College of Engineering ISIMKM. Mysuru-Kanakapura-Bangalore Road Mellahelli Mysuru-570 028

		Cabinet		Dept.	Teaching /We			Exa	mination		
Sl. No	Subject Code	Subject (Course)	Title	Teaching D	Theory	Practical/ Drawing	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15MAT31	Core Subject	Engineering Mathematics-III	Mathe matics	04		03	20	80	100	4
2	15EE32	Core Subject	Electric Circuit Analysis	EEE	04		03	20	80	100	4
3	15EE33	Core Subject	Transformers and Generators	EEE	04		03	20	80	100	4
4	15EE34	Core Subject	Analog Electronic Circuits	EEE	04		03	20	80	100	4
5	15EE35	Core Subject	Digital System Design	EEE	04		03	20	80	100	4
6	15EE36	Foundation Course	Electrical and Electronic Measurements	EEE	04		03	20	80	100	4
7	15EEL37	Laboratory	Electrical Machines Laboratory -1	EEE	01-Hour Inst 02-Hour Pra		03	20	80	100	2
8	15EEL38	Laboratory	Electronics Laboratory	EEE	01-Hour Inst 02-Hour Pra		03	20	80	100	2
				TOTAL	Theory:24 I Practical: 0		24	160	640	800	28

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. FoundationCourse: The courses based upon the content that leads to Knowledge enhancement.

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysurij-570 028

**IVSEMESTER** 

					Teaching Hou	rs /Week		Exa	amination		
Sl. No	Subject Code	Subject (Course)	Title	Teaching Dept.	Theory	Practical/ Drawing	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	15MAT41	Core Subject	Engineering Mathematics-IV	Math - matics	04		03	20	80	100	4
2	15EE42	Core Subject	Power Generation and Economics	EEE	04		03	20	80	100	4
3	15EE 43	Core Subject	Transmission and Distribution	EEE	04		03	20	80	100	4
4	15EE 44	Core Subject	Electric Motors	EEE	04		03	20	80	100	4
5	15EE 45	Core Subject	Electromagnetic Field Theory	EEE	04		03	20	80	100	4
6	15EE 46	Foundation Course	Operational Amplifiers and Linear ICs	EEE	04		03	20	80	100	4
7	15EE L47	Laboratory	Electrical Machines Laboratory -2	EEE	01-Hour Instruct		03	20	80	100	2
8	15EEL48	Laboratory	Op- amp and Linear ICs Laboratory	EEE	01-Hour Instruction 02-Hour Practical		03	20	80	100	2
			IV semester: 24 + 24 + 28 + 28 = 104	TOTAL	Theory:24 hour Practical: 06 ho		24	160	640	800	28

Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.
 Foundation Course: The courses based upon the content that leads to Knowledge enhancement.

ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028

#### **IV SEMESTER**

SI.			Теа	ching Hours	s /Week		Exan	nination		Credits
N o	Subject Code	Title	Lectur e	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT41	Engineering Mathematics – III	04			03	80	20	100	04
2	15ME42	Kinematics of Machinery	03	02		03	80	20	100	04
3	15ME43	Applied Thermodynamics	03	02		03	80	20	100	04
4	15ME44	Fluid mechanics	03	02		03	80	20	100	04
5	15ME45A/	Metal Casting and Welding	04			02				
	15ME45B	Machine Tools and Operations				03	80	20	100	04
6	15ME46 A/	Computer Aided Machine Drawing	02		4	02				
	15ME46B	Mechanical Measurements and Metrology	04			03	80	20	100	03
	15MEL47A	Materials Testing Lab/								
7	/ 15MEL47B	Mechanical Measurements and Metrology Lab	1		2	03	80	20	100	02
8	15MEL48A /	Foundry and Forging Lab								
	, 15MEL48B	Machine Shop/	1		2	03	80	20	100	02
		TOTAL	19/21	06	08/04		640	160	800	27

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#### **B.E. CIVIL ENGINEERING**

#### **V SEMESTER**

	Subject		Teaching Hours /Week			Examinat	ion		Credits
Sl. No.	Code	Title	Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15CV51	Design of RC Structural Elements	04		03	80	20	100	4
2	15CV52	Analysis of Indeterminate Structures	04		03	80	20	100	4
3	15CV53	Applied Geotechnical Engineering	04		03	80	20	100	4
4	15CV54	Computer Aided Building Planning and Drawing	01	3D	03	80	20	100	4
5	15CV55X	Professional Elective-1	03		03	80	20	100	3
6	15CV56X	Open Elective-1	03		03	80	20	100	3
7	15CVL57	Geotechnical Engineering Laboratory		1I+2P	03	80	20	100	2
8	15CVL58	Concrete and Highway Materials Laboratory		1I+2P	03	80	20	100	2
		TOTAL	19	09	24	640	160	800	26

Profession	al Elective 1	<b>Open Elective</b>	21
15CV551	Air pollution and Control	15CV561	Traffic Engineering
15CV552	Railways, Harbours, tunneling and Airports	15CV562	Sustainability Concepts in Engineering
15CV553	Masonry Structures	15CV563	Remote Sensing and GIS
15CV554	Theory of Elasticity	15CV564	Occupational Health and Safety
		15NC565	NCC

1. Professional Elective: Elective relevant to chosen specialization/ branch

2. Open Elective: Electives from other technical and/or emerging subject areas

PRINCIPAL ATME College of Engineering 13th KM. Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

	Subject Code		Teaching Hours /Week				Credits		
SI. No.		Title	Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15CV61	Construction Management and Entrepreneurship	04		03	80	20	100	4
2	15CV62	Design of Steel Structural Elements	04		03	80	20	100	4
3	15CV63	Highway Engineering	04		03	80	20	100	4
4	15CV64	Water Supply and Treatment Engineering	04		03	80	20	100	4
5	15CV65X	Professional Elective 2	03		03	80	20	100	3
6	15CV66X	Open Elective 2	03		03	80	20	100	3
7	15CVL67	Software Application Lab		1I+2P	03	80	20	100	2
8	15CVP68	Extensive Survey Project /Camp		1I+2P	03	80	20	100	2
		TOTAL	22	6	24	640	160	800	26

B.E.C	IVIL	ENGI	NEEF	RING
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Professional E	lective-2	Open Electiv	re-2
15CV651	Solid Waste Management	15CV661	Water Resource Management
15CV652	Matrix Method of Structural Analysis	15CV662	Environmental Protection and Management
15CV653	Alternative Building Materials	15CV663	Numerical Methods and applications
15CV654	Ground Improvement Techniques	15CV664	Finite Element Analysis

PRINCIPAL ATME College of Engineering 1311KM Mysuru-Kanakapura-Bangalore Road Mellahelli Mysuni-570 028

VISEMESTED

**B.E.** Computer Science & Engineering

#### **V SEMESTER**

SI.	Subject			ing Hours Veek	1		Credits		
No	Subject Code	ode	Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15CS51	Management and Entrepreneurship for IT Industry	04		03	80	20	100	4
2	15CS52	Computer Networks	04		03	80	20	100	4
3	15CS53	Database Management System	04	· //	03	80	20	100	4
4	15CS54	Automata theory and Computability	04		03	80	20	100	4
5	15CS55x	Professional Elective 1	03	-	03	80	20	100	3
6	15CS56x	Open Elective 1	03	- ,	03	80	20	100	3
7	15CSL57	Computer Network Laboratory		1I+2P	03	80	20	100	2
8	15CSL58	DBMS Laboratory with mini project		1I+2P	03	80	20	100	2
		TOTAL	22	6	24	640	160	800	26

Professional	Elective 1
15CS551	Object Oriented Modeling and Design
15CS552	Introduction to Software Testing
15CS553	Advanced JAVA and J2EE
15CS554	Advanced Algorithms

1. Professional Elective: Electives relevant to chosen specialization / branch

2. Open Elective: Electives from other technical and/or emerging subject areas (Announced separately)

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

**B.E.** Computer Science & Engineering

#### **VI SEMESTER**

SI.	Subject Code	ode		ing Hours Veek	- Dec	Exami	nation		Credits
No			Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15CS61	Cryptography, Network Security and Cyber Law	04		03	80	20	100	4
2	15CS62	Computer Graphics and Visualization	04	-	03	80	20	100	4
3	15CS63	System Software and Compiler Design	04		03	80	20	100	4
4	15CS64	Operating Systems	04		03	80	20	100	4
5	15CS65x	Professional Elective 2	03		03	80	20	100	3
6	15CS66x	Open Elective 2	03		03	80	20	100	3
7	15CSL67	System Software and Operating System Laboratory		1I+2P	03	80	20	100	2
8	15CSL68	Computer Graphics Laboratory with mini project		1I+2P	03	80	20	100	2
		TOTAL	22	6	24	640	160	800	26

Professional	Elective 2
15CS651	Data Mining and Data Warehousing
15CS652	Software Architecture and Design Patterns
15CS653	Operations research
15CS654	Distributed Computing system

1. Professional Elective: Electives relevant to choosen specialization / branch

2. Open Elective: Electives from other technical and/or emerging subject areas (Announced separately)

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

### SCHEME OF TEACHING AND EXAMINATION B.E.: Electronics & Communication Engineering

**V SEMESTER** 

S1.	Subject Code		Teaching /Week	Teaching Hours /Week		Examination				
No		Title	Theory	Practical /Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks		
1	15ES51	Management and Entrepreneurship Development	04		03	80	20	100	4	
2	15EC52	Digital Signal Processing	04		03	80	20	100	4	
3	15EC53	Verilog HDL	04		03	80	20	100	4	
4	15EC54	Information Theory & Coding	04		03	80	20	100	4	
5	15EC55X	Professional Elective-1	03		03	80	20	100	3	
б	15EC56X	Open Elective-1	03		03	80	20	100	3	
7	15ECL57	DSP Lab		1I+2P	03	80	20	100	2	
8	15ECL58	HDL Lab		1I+2P	03	80	20	100	2	
тот	AL		22	06	24	640	160	800	26	

Profession	Professional Elective-1			tive - 1* (List offered by EC/TC Board only)
15EC551	Nanoelectronics			Automotive Electronics
15EC552	Switching & Finite Automata Theory		15EC562	Object Oriented Programming Using C++
15EC553	Operating System		15EC563	8051 Microcontroller
15EC554	Electrical Engineering Materials			
15EC555	MSP430 Microcontroller			

1. Professional Elective: Elective relevant to chosen specialization/ branch.

2. \* Open Elective List: For other Open Electives offered by other Boards, refer the Scheme of other Boards or Consolidated list in VTU Website.

ATME College of Engineering astriki. Mysuru-Kanakapura-Bangalore Road Mellehelli: Mysuru-570 028

# SCHEME OF TEACHING AND EXAMINATION **B.E.: Electronics & Communication Engineering**

#### **VI SEMESTER**

<b>S</b> 1.	Subject			ing Hours Week		Credits			
No	Code	Title	Theory	Practical/ Drawing	Duration	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15EC61	Digital Communication	04		03	80	20	100	4
2	15EC62	ARM Microcontroller & Embedded Systems	04		03	80	20	100	4
3	15EC63	VLSI Design	04		03	80	20	100	4
4	15EC64	Computer Communication Networks	04		03	80	20	100	4
5	15EC65X	Professional Elective-2	03		03	80	20	100	3
б	15EC66X	Open Elective-2	03		03	80	20	100	3
7	15ECL67	Embedded Controller Lab		1I+2P	03	80	20	100	2
8	15ECL68	Computer Networks Lab		1I+2P	03	80	20	100	2
		TOTAL	22	6	24	640	160	800	26

	Professional Elective-2			Open Elective - 2* (List offered by EC/TC Board only)					
	Cellular Mobile Communication		15EC661	Data Structures Using C++					
15EC652	Adaptive Signal Processing			Power Electronics					
15EC653	Artificial Neural Networks		15EC663	Digital System Design using Verilog					
15EC654	Digital Switching Systems								
	Microelectronics								

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Professional Elective: Elective relevant to chosen specialization/branch.
 \* Open Elective List: For other Open Electives offered by other Boards, refer the Scheme of other Boards or Consolidated list in VTU Website.

				+	Teach	ning Hours /Week		Exami	nation		
Sl. No	Subject Code	Subject (Course)	Title	Teaching Department	Theory	Practical/ Drawing	Duration in hours	Theory/ Practical Marks	I.A. Marks	Total Marks	Credits
1	15EE51	Core Subject	Management and Entrepreneurship	EEE	04		03	80	20	100	4
2	15EE52	Core Subject	Microcontroller	EEE	04		03	80	20	100	4
3	15EE53	Core Subject	Power Electronics	EEE	04		03	80	20	100	4
4	15EE54	Core Subject	Signals and Systems	EEE	04		03	80	20	100	4
5	15EE55X	Professional Elective	Professional Elective – I	EEE	03		03	80	20	100	3
6	15EE56Y	Open Elective	Open Elective - I	EEE	03		03	80	20	100	3
7	15EEL57	Laboratory	Microcontroller Laboratory	EEE		Instruction Practical	03	80	20	100	2
8	15EEL58	Laboratory	Power Electronics Laboratory	EEE		Instruction Practical	03	80	20	100	2
			Т		22hours 11: 06 hours	24	160	640	800	26	

#### Elective

1	Professional Elective	Offered	Open Elective <sup>***</sup> by the Department of Electrical and Electronics Engineering
Courses under Code 15EE55X	Title	Courses under Code 15EE55X	Title
15EE551	Introduction to Nuclear Power	15EE561	Electronic Communication systems
15EE552	Electrical Engineering Materials	15EE562	Programmable Logic controllers
15EE553	Estimating and Costing	15EE563	Renewable Energy Systems
15EE554	Special Electrical Machines	15EE564	Business Communication

\*\*\* Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed provided;

- The candidate has pre requisite knowledge.
- The candidate has not studied during I and II year of the programme.
- The syllabus content of open elective is similar to that of Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters.

Registration to electives shall be documented under the guidance of Programme Coordinator and Adviser.

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Electives relevant to chosen specialization/ branch.

3. Open Elective: Electives from other technical and/ or emerging subject areas.



VI SE	EMESTER					()					
					Te	aching Hours /Week		Exami	nation		
Sl. No	Subject Code	Subject (Course)	Title	Teaching Department	Theory	Practical/ Drawing	Duration in hours	Theory/ Practical Marks	I.A. Marks	Total Marks	Credits
1	15EE61	Core Subject	Control Systems	EEE	04		03	80	20	100	4
2	15EE62	Core Subject	Power System Analysis - 1	EEE	04		03	80	20	100	4
3	15EE63	Core Subject	Digital Signal Processing	EEE	04		03	80	20	100	4
4	15EE64	Core Subject	Electrical Machine Design	EEE	04		03	80	20	100	4
5	15EE65X	Professional Elective	Professional Elective – II	EEE	03		03	80	20	100	3
6	15EE66Y	Open Elective	Open Elective - II	EEE	03		03	80	20	100	3
7	15EEL67	Laboratory	Control System Laboratory	EEE		Hour Instruction Hour Practical	03	80	20	100	2
8	15EEL68	Laboratory	Digital Signal Processing Laboratory	EEE		Hour Instruction Hour Practical	03	80	20	100	2
				TOTAL		ory:22 hours ctical: 06 hours	24	160	640	800	26
				Elective							
		Professional	Elective	Offered	l by ti	Open Ele he Department of Elect		Electro	nics Engi	neering	
	ses under 15EE65X		Title	Courses under Code 15EE66Y Title				neering			
15	SEE651	Computer Aid	led Electrical Drawing	15EE661		Artificial Neural Net	tworks a	nd Fuzz	y logic		
									-		

15EE651	Computer Aided Electrical Drawing	15EE661	Artificial Neural Networks and Fuzzy logic
15EE652	Advanced Power Electronics	15EE662	Sensors and Transducers
15EE653	Energy Audit and Demand side Management	15EE663	Batteries and Fuel Cells for Commercial, Military and Space Applications
15EE654	Solar and Wind Energy	15EE664	Industrial Servo Control Systems
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\*\*\* Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed provided;

- The candidate has pre requisite knowledge.
- The candidate has not studied during I and II year of the programme.
- The syllabus content of open elective is similar to that of Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters.

Registration to electives shall be documented under the guidance of Programme Coordinator and Adviser.

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Electives relevant to chosen specialization/ branch.

3. Open Elective: Electives from other technical and/ or emerging subject areas.

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#### **B.E.** Mechanical Engineering

				Teac	hing Hours	/Week		Examin	ation		Credits	
SI. No	Subject Code	Title		Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks		
1	15ME61	Finite Element Analysis		3	2	0	03	80	20	100	4	
2	15ME62	Computer integrated Manufacturing		4	0	0	03	80	20	100	4	
3	15ME63	Heat Transfer		3	2	0	03	80	20	100	4	
4	15ME64	Design of Machine Elements -II		3	2	0	03	80	20	100	4	
5	15ME65X	Professional Elective-II		3	0	0	03	80	20	100	3	
6	15ME66X	Open Elective-II		3	0	0	03	80	20	100	3	
7	15MEL67	Heat Transfer Lab		1	0	2	03	80	20	100	2	
8	15MEL68	Modeling and Analysis Lab(FEA)		1	0	2	03	80	20	100	2	
		TOTAL		21	6	04		640	160	800	26	
Prot	fessional Ele	ective-II	Open Ele	ctive-II								
15N	1E651 C	Computational Fluid Dynamics	15ME661							Via		
15M	1E652 N	Mechanics of Composite Materials	15ME662	2 Indust	rial Safety					Mut		
15M	1E653 N	Metal Forming	15ME663	Maint	enance Engi	neering				PRINCIPAL	nineering	
15M	1E654 T	Fool Design	15ME664	Total	Quality Man	agement			ATME College of Enginee 13th:KM Mysuru-Kanakapura-Bangalo			
15M	1E655 A	Automobile Engineering							Mellahalli Mysuru-570 02			

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. OpenElective: Electives from other technical and/or emerging subject areas.

C1	Subject			Teaching		Week		Examina	ation		Credits
SI. No	Subject Code	Title	Lectu		orial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	Crouite
1	15ME51	Management and Engineering Economics	3		2	0	03	80	20	100	4
2	15ME52	Dynamics of Machinery	3		2	0	03	80	20	100	4
3	15ME53	Turbo Machines	3		2	0	03	80	20	100	4
4	15ME54	Design of Machine Elements - I	3		2	0	03	80	20	100	4
5	15ME55X	Professional Elective-I	3	(	)	0	03	80	20	100	3
6	15ME56X	Open Elective-I	3	(	)	0	03	80	20	100	3
7	15MEL57	Fluid Mechanics & Machinery Lab	1	0	)	2	03	80	20	100	2
8	15MEL58	Energy Lab	1	0	)	2	03	80	20	100	2
I		TOTAL	21	0	6	04		640	160	800	26
	Professional	Elective-I		Open Elect	ive-I						
	15ME551	Refrigeration and Air-conditioning		15ME561	1	nization Techt	iques				
	15ME552	Theory of Elasticity	15ME562		Optimization Techniques Energy and Environment						
	15ME553	Human Resource Management		15ME562		Automation and Robotics					
	15ME554	Non Traditional Machining		15ME564	Project Managemet						

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. OpenElective: Electives from other technical and/or emerging subject areas.

NCIPAL ATME College of Engineering 13th\*KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-579 028

#### **B.E. CIVIL ENGINEERING**

VII SEMESTER
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	Subject			aching s /Week		Exam	ination		Credits
SI. No.	No. Code		Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15CV71	Municipal and Industrial Waste Water Engineering	04		03	20	80	100	4
2	15CV72	Design of RCC and Steel Structures	04		03	20	80	100	4
3	15CV73	Hydrology and Irrigation Engineering	04		03	20	80	100	4
4	15CV74X	Professional Elective 3	03		03	20	80	100	3
5	15CV75X	Professional Elective 4	03		03	20	80	100	3
6	15CVL76	Environmental Engineering Laboratory		1I+2P	03	20	80	100	2
7	15CVL77	Computer Aided Detailing of Structures		1I+2D	03	20	80	100	2
8	15CVP78	Project Phase I +Project Seminar		3		100		100	2
		TOTAL	18	9	21	240	560	800	24

Professional			
15CV741	Design of Bridges	15CV751	Urban Transportation and Planning
15CV742	Ground Water & Hydraulics	15CV752	Prefabricated Structures
15CV743	Design Concept of Building Services	15CV753	Rehabilitation and Retrofitting of Structures
15CV744	Structural Dynamics	15CV754	Reinforced Earth Structures

1. Project Phase-I + Seminar: Literature Survey, Problem Identification, objectives and Methodology, Submission of synopsis and seminar

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#### **B.E. CIVIL ENGINEERING**

VIII SEMESTER	VIII
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	Sechiert			aching s /Week		Exa	nination		Credits	
Sl. No.	Subject Code	Title	Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks		
1	15CV81	Quantity Surveying and Contracts Management	4	-	3	20	80	100	4	
2	15CV82	Design of Pre Stressed Concrete Elements	4	-	3	20	80	100	4	
3	15CV83X	Professional Elective 5	3	-	3	20	80	100	3	
4	15CV84	Internship/Professional Practice	Industr	y Oriented	3	50	50	100	2	
5	15CVP85	Project Work	-	6	3	100	100	200	6	
6	15CVS86	Seminar on current trends in Engineering and Technology	-	4	-	100	-	100	1	
	TOTAL			10	15	310	390	700	20	

Professiona	Professional Elective 5						
15CV831 Earthquake Engineering							
15CV832	15CV832 Hydraulic Structures						
15CV833	15CV833 Pavement Design						
15CV834							

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B.E. Computer Science & Engineering

	VII SEMEST								
S1.	Subject			ing Hours Veek			Credits		
SI. No		1110	Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15CS71	Web Technology and its applications	04		03	20	80	100	4
2	15CS72	Advanced Computer Architectures	04	68	03	20	80	100	4
3	15CS73	Machine Learning	04	-	03	20	80	100	4
4	15CS74x	Professional Elective 3	03		03	20	80	100	3
5	15CS75x	Professional Elective 4	03		03	20	80	100	3
6	15CSL76	Machine Learning Laboratory		1I+2P	03	20	80	100	2
7	15CSL77	Web Technology Laboratory with mini project		1I+2P	03	20	80	100	2
8	15CSP78	Project Phase 1 + Seminar				100		100	2
	•	TOTAL	18	6	21	240	560	800	24

Professional E	lective 3	Professional E	lective 4
15CS741	Natural Language Processing	15CS751	Soft and Evolutionary Computing
15CS742	Cloud Computing and its Applications	15CS752	Computer Vision and Robotics
15CS743	Information and Network Security	15CS753	Digital Image Processing
15CS744	Unix System Programming	15CS754	Storage Area Networks

1. Professional Elective: Electives relevant to choosen specialization / branch

2. Project Phase 1 + Seminar : Literature Survey, Problem Identification, Objectives and Methodology, Submission of Synopsis and Seminar 🔨

ATME College of Engineering 13th KM Mysutu-Kanakabura-Bangalore Road Mellahalli Mysuru-570 928

B.E. Computer Science & Engineering

VIII SEMESTER

S1.	Subject		1	ing Hours Veek		Exam	ination		Credits
No	Code	Title	Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15CS81	Internet of Things and Applications	4		3	20	80	100	4
2	15CS82	Big Data Analytics	4	/***	3	20	80	100	4
3	15CS83x	Professional Elective 5	3		3	20	80	100	3
4	15CS84	Internship / Professional Practice	Industr	y Oriented	3	50	50	100	2
5	15CSP85	Project work phase II		6	3	100	100	200	5
6	15CSS86	Seminar		4		100		100	2
		TOTAL	11	10	15	310	390	700	20
Profe	essional Elect	ive 5							
15CS		High Performance Computing							

 15CS832
 User Interface Design

 15CS833
 Network management

 15CS834
 System Modeling and Simulation

1. Professional Elective: Electives relevant to chosen specialization / branch

2. Internship / Professional Practice: To be carried out between  $6^{th}$  and  $7^{th}$  semester vacation or  $7^{th}$  and  $8^{th}$  semester vacation period

ATME College of Engineering 3th KM Mysuru-Kanakapura-Bangalore Road Mellahâlli Mysuru-570 028

### SCHEME OF TEACHING AND EXAMINATION B.E.: Electronics & Communication Engineering

VII SEMESTED

<b>S</b> 1.	Subject		Teachin /W	g Hours eek		Examination				
No	Code	Title	Theory	Practic al/Dra wing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks		
1	15EC71	Microwave and Antennas	04		03	20	80	100	4	
2	15EC72	Digital Image Processing	04		03	20	80	100	4	
3	15EC73	Power Electronics	04		03	20	80	100	4	
4	15XX74X	Professional Elective-3	03		03	20	80	100	3	
5	15EC75X	Professional Elective-4	03		03	20	80	100	3	
6	15ECL76	Advanced Communication Lab		1I+2P	03	20	80	100	2	
7	15ECL77	VLSI Lab		1I+2P	03	20	80	100	2	
8	15ECP78	Project Work Phase–I + Project work Seminar		03		100	-	100	2	
TOTAL				09	21	240	560	800	24	

Profession	al Elective-3	Professional	Elective-4
15EC741	Multimedia Communication	15EC751	DSP Algorithms and Architecture
15EC742	<b>Biomedical Signal Processing</b>	15EC752	IoT and Wireless Sensor Networks
15EC743	Real Time Systems	15EC753	Pattern Recognition
15EC744	Cryptography	15EC754	Advanced Computer Architecture
15EC745	CAD for VLSI	15EC755	Satellite Communication

1. Project Phase –I + Project Work Seminar: Literature Survey, Problem Identification, Objectives and Methodology. Submission of Synopsis and Seminar.

PRINCIPAL ATME College of Engineering 13mKM Mysuru-Kanakapura-Bangalore Road Mellahalii Mysuru-570 028

### SCHEME OF TEACHING AND EXAMINATION B.E.: Electronics & Communication Engineering

#### **VIII SEMESTER**

S1.	Subject			ing Hours Week	Examination				Credits
No	Code	Title	Theory	Practical/ Drawing	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15EC81	Wireless Cellular and LTE 4G Broadband	4	4 -		20	80	100	4
2	15EC82	Fiber Optics & Networks	4	-	3	20	80	100	4
3	15EC83X	Professional Elective-5	3	-	3	20	80	100	3
4	15EC84	Internship/Professional Practice	Industr	y Oriented	3	50	50	100	2
5	15ECP85	Project Work	-	6	3	100	100	200	б
6	15ECS86	Seminar	-	4	-	100	-	100	1
		TOTAL	11	10	15	310	390	700	20

Profession	Professional Elective -5							
15EC831	5EC831 Micro Electro Mechanical Systems							
15EC832 Speech Processing								
15EC833	Radar Engineering							
15EC834 Machine learning								
15EC835 Network and Cyber Security								

1. Internship / Professional Practice: To be carried between the (6th and 7th Semester) or (7th and 8th) Semester Vacation period.

PRINCIPAL ATME College of Engineering 13thKM Mysuru-Kanakapura-Bangalore Road Mellahahli Mysuru-570 028

				t	Teaching	Hours/Week	Examination				
SI. No	Course Code	Subject (Course)	Title	Teaching Department	Theory	Practical/ Drawing	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	15EE71	Core Subject	Power System Analysis - 2	EEE	04	-	03	20	80	100	4
2	15EE72	Core Subject	Power System Protection	EEE	04	-	03	20	80	100	4
3	15EE73	Core Subject	High Voltage Engineering	EEE	04	-	03	20	80	100	4
4	15EE74X	Professional Elective	Professional Elective – III	EEE	04		03	20	80	100	3
5	15EE75Y	Professional Elective	Professional Elective – IV	EEE	04		03	20	80	100	3
6	15EEL76	Laboratory	Power system Simulation Laboratory	EEE	01-Hour In 02-Hour P		03	20	80	100	2
7	15EEL77	Laboratory	Rely and High Voltage Laboratory	EEE		01-Hour Instruction 02-Hour Practical		20	80	100	2
8	15EEP78	Project Phas	e – I + Seminar	EEE				100		100	2
			Т	OTAL	Theory:24 Practical:		21	240	560	800	24

		Elective	
	Professional Elective – III		Professional Elective – IV
Courses under Code 15EE74X	Title	Courses under Code 15EE75Y	Title
15EE741	Advanced Control Systems	15EE751	FACTs and HVDC Transmission
15EE742	Utilization of Electrical Power	15EE752	Testing and Commissioning of Power System Apparatus
15EE743	Carbon Capture and Storage	15EE753	Spacecraft Power Technologies
15EE744	Power System Planning	15EE754	Industrial Heating

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch.

**3.** Project Phase –I + Seminar: Literature Survey, Problem Identification, objectives and Methodology. Submission of synopsis and seminar.

4. Internship / Professional Practice: To be carried between the VI and VIIsemester vacation or VII and VIII semester vacation period.

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				L .	Teac	hing Hours /Week	Examination				
SI. No	Course Code	Subject (Course)	Title	Teaching Department	Theory	Practical/ Drawing	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	15EE81	Core Subject	Power System Operation and Control	EEE	04		03	20	80	100	4
2	15EE82	Core Subject	Industrial Drives and Applications	EEE	04		03	20	80	100	4
3	15EE83X	Professional Elective	Professional Elective - V	EEE	03		03	20	80	100	1
4	15EE84	Core Subject	Internship / Professional Practice	EEE	Industry Oriented		03	50	50	100	
5	15EEP85	Core Subject	Project Work Phase -II	EEE		06	03	100	100	200	
6	15EES86	Core Subject	Seminar	EEE		04		100		100	
				TOTAL		y:11 hours cal: 10 hours	15	310	390	700	2

Professional Elective – V					
Courses under Code 15EE83X	Title				
15EE831	Smart Grid				
15EE832	Operation and Maintenance of Solar Electric Systems				
15EE833	Integration of Distributed Generation				
15EE834	Power System in Emergencies				

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch.

3. Internship / Professional Practice: To be carried between the VI and VIIsemester vacation or VII and VIII semester vacation period.

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#### **B.E.** Mechanical Engineering

#### **VIII SEMESTER**

		Title	Teac	hing Hours	/Week		Credits			
SI. No	Subject Code		Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15ME81	Operations Research	3	2	0	03	80	20	100	4
2	15ME82	Additive Manufacturing	4	0	0	03	80	20	100	4
3	15ME83X	Professional Elective - V	3	0	0	03	80	20	100	3
4	15ME84	Internship / Professional Practice	Inc	Industry Oriented		03	50	50	100	2
5	15ME85	Project Phase – II	-	6	-	03	100	100	200	6
6	15MES86	Seminar	-	4	-	-	-	100	100	1
		TOTAL	10	12	-		390	310	700	20
Dro	fessional Fle	ative M								

Professiona	fessional Elective-V					
15ME831	Cryogenics					
15ME832	Experimental Stress Analysis					
15ME833	Theory of Plasticity					
15ME834	Green Manufacturing					
15ME835	Product life cycle management					



1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Internship / Professional Practice: To be carried out between 6<sup>th</sup>& 7<sup>th</sup> semester vacation or 7<sup>th</sup>& 8<sup>th</sup> semester vacation.