

ShriSomeshwarShikshanPrasarakMandal's SharadchandraPawar College of Engineering & Technology, Someshwarnagar Tal – Baramati, Dist – Pune 412 306 (Approved by AICTE New Delhi, Recognized by Govt. of Maharashtra & Affiliated to SavitribaiPhule Pune University, Id.no.PU/PN.Engg./445/2012) +91-2112-283185 \* Fax : (02112) 283185 Web :www.secsomeshwar.ac.in \*Email:sspm1972@gmail.com

# Minutes of Relevant Academic Council/ BOS Meetings

## सावित्रीबाई फुले पुणे विद्यापीठ

दूरध्वनी कमांकः ०२०—२५६९१२३३ २५६०१२५८ २५६०१२५९



शैक्षणिक विभाग गणेशखिंड, पुणे—४११ ००७ टेलिग्राफ : 'युनिपुणे' फॅक्स : ०२०—२५६९१२३३ वेबसाइट : www.unipune.ac.in इ—मेल्र : boards@pun.unipune.ac.in दिनांक : 08/02/2094

संदर्भ क. :सी.बी./इंजि / १७६

## परिपत्रक क्र. १८/२०१५

विषय:--

अभियांत्रिकी विद्याशाखेअंतर्गत येणा—या विविध अभ्यासमंडळांमध्ये B.E (2012 course) Semester - IV या वर्षाच्या अभ्यासकमातील खालील Open Elective विषयांस शैक्षणिक वर्ष २०१५—१६ पासून मान्यता देणेबाबत...

विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार सर्व संबंधितांस या परिपत्रकाद्वारे कळविण्यात येते की, अभियांत्रिकी विद्याशाखेअंतर्गत येणा—या विविध अभ्यासमंडळांमध्ये B.E (2012 course) Semester - IV या वर्षाच्या अभ्यासकमातील खालील Open Elective विषयांस शैक्षणिक वर्ष २०१५—१६ पासून मान्यता देण्यात येत आहे.

Sr. No	Name of Boards of Studies	Elective Subject
1	B.E. Civil	'Sub-sea Engineering'
2	B.E. Computer B. E. IT B.E. E &TC	'Unified Communications and Center Applications'
3	3 B.E. Computer	1. 'Programming Paradigms for Complex Problems – Case Studies in Python'
	2. 'Concurrency on Open Source Systems'	
	B.E. Electronics and E&TC	'Advanced Automotive Electronics'

पुणे विद्यापीठाच्या सर्व संलग्न अभियांत्रिकी महाविद्यालयांचे मा. प्राचार्य यांना विनंती की, सदर परिपत्रकाचा आशय सर्व सबंधित प्राध्यापक व विद्यार्थ्यांच्या निदर्शनास आणून द्यावा.

DIE COO

Staradthandra Pawar Callege of Engineering & Technology Someshnarnagar, Tal Baramask Disd. Pane: (Fin: 1412, 2004) संचेलिकांकरिता (म.वि.वि.मं) प्रत माहितीसाठी व पुढील योग्य त्या कार्यवाहीसाठी:--१. मा. अधिष्ठाता, अभियांत्रिकी विद्याशाखा २. मा. संचालक, बी.सी.यु.डी. ३. मा. प्राचार्य, सर्व अभियांत्रिकी महाविद्यालये ४. मा. संचालक, सर्व मान्यताप्राप्त संस्था ५. मा. परीक्षा नियंत्रक, पुणे विद्यापीठ ६. मा. संचालक, स्पर्धा परीक्षा केंद्र ७. मा. उपकुलसचिव, परीक्षा (१,२) ८. मा. सिस्टीम ॲनालिस्ट डेटा प्रोग्रेसिंग युनिट ९. मा. उपकुलसचिव, प्रवेश १०.मा. उपकुलसचिव, विकास ११.मा. उपकुलसचिव, पात्रता सहाय्यक कुलसचिव (परीक्षा समन्वय) 22. १३. सहाय्यक कुलसचिव (परीक्षा-एस.ॲण्ड टी. विभाग) सहाय्यक कुलसचिव (गोपनीय कक्ष) 28. १५. सहाय्यक कुलसचिव (परदेशी विद्यार्थी केंद्र) सहाय्यक कुलसचिव (सभा दप्तर) 25. १७. कायदा अधिकारी जनसंपर्क अधिकारी 86. कक्षाधिकारी (बहि:स्थ) 29.

- २०. कक्षाधिकारी (पात्रता विभाग)
- २१. प्रमुख, विद्यापीठ उपकेंद्र : अहमदनगर, नाशिक.

वि.प. ठराव क. ब ४४ पीए/४४ /१४, दि. ३० डिसेंबर, २०१४



Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramak, Dist. Pune (Pin: 412.366)



शैक्षणिक विभाग गणेशखिंड, पुणे-४११ ००७ दूरध्वनी क्र. : ०२०-२५६०१२५७/५८/५९ Savitribai Phule Pune University ई-मेल : boards@pun.unipune.ac.in संकेतस्थळ : www.unipune.ac.in संदर्भ कः CB 34 T /112

सावित्रीबाई फुले पुणे विद्यापीठ (पूर्वीचे पूर्ण विद्यापीठ)

(Formerly University of Pune)

**Academic Section** Ganeshkhind, Pune - 411 007 Phone : 020-25601257/58/59 E-mail : boards@pun.unipune.ac.in Website : www.unipune.ac.in

दिनांक : 12/02/2020

परिपत्रक क्रमांक. 3८/२०२०

विषय :--

विज्ञान व तंत्रज्ञान विद्याशाखेंतर्गत चतुर्थ वर्ष अभियांत्रिकीच्या E&TC (Sem II) २००८ पॅटर्नप्रमाणे २०१५ पॅटर्न अभ्यासकमामध्ये नवीन 'Open Elective' चा समावेश करणेबाबत...

विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार सर्व संबंधितांस या परिपत्रकाद्वारे कळविण्यात येते की, विज्ञान व तंत्रज्ञान विद्याशाखेंतर्गत चतुर्थ वर्ष अभियांत्रिकीच्या E&TC (Sem II) २००८ पॅटर्नप्रमाणे २०१५ पॅटर्न अभ्यासकमामध्ये नवीन 'Open Elective' चा समावेश करण्यास मान्यता देण्यात येत आहे.

Sr.No.	Subject Name
1	Entrepreneurship Development

सदर अभ्यासकम सावित्रीबाई फुले पुणे विद्यापीठाच्या <u>www.unipune.ac.in</u> या वेबसाईटवर Syllabi - Academic Year 2019 - Faculty of Science and Technology (Engineering) या शीर्षकाखाली उपलब्ध आहे.

मा. प्राचार्य, सर्व संलग्नित अभियांत्रिकी महाविद्यालये यांना विनंती की, सदर परिपत्रकाचा आशय सर्व संबंधितांच्या निदर्शनास आणून द्यावा.



उपकलस

(शैक्षणिक विभाग)

RINCIPA Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal Baramati, Dist. Pune (Pin: 412 366) प्रत माहितीसाठी व पुढील योग्य त्या कार्यवाहीसाठी:--

१. मा. अधिष्ठाता, विज्ञान व तंत्रज्ञान विद्याशाखा २. मा. प्राचार्य, सर्व संलग्नित अभियांत्रिकी महाविद्यालये ३. मा. संचालक, सर्व मान्यताप्राप्त परिसंस्था ४. मा. संचालक, परीक्षा व मुल्यमापन मंडळ ५. मा. संचालक, स्पर्धा परीक्षा केंद्र ६. मा. उपकुलसचिव, परीक्षा (१,२) ७. मा. उपकुलसचिव, नियोजन व विकास विभाग ८. मा. उपकुलसचिव, शैक्षणिक पात्रता विभाग ९. मा. उपकुलसचिव, संभा व दप्तर विभाग १०. मा. उपकुलसचिव, परीक्षा-एस.ॲण्ड टी. विभाग ११. मा. उपकुलसचिव, शौक्षणिक प्रवेश विभाग १२. सहायक कुलसचिव, गोपनीय कक्ष १३. सहायक कुलसचिव, संलग्नता कक्ष १४. सहायक कुलसचिव, परीक्षा समन्वय १५ सहायक कुलंसचिव, मा. प्र-कुलगुरू कार्यालय १६. वरिष्ठ कायदा अधिकारी १७. जनसंपर्क अधिकारी .१८. कक्षाधिकारी, बहि:स्थ ·विभाग १९. प्रमुख, विद्यापीठ उपकेंद्र : अहमदनगर, नाशिक.

२०. सिस्टीम ॲनालिस्ट डेटा प्रोग्रेसिंग युनिट

वि.प. ठराव क. ब ९पीए/९/२०२०, दि. २३, जानेवारी २०२०



PRINCIPAL

Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin: 412 366)



श्रीक्षणिक विभाग गणेशखिंड, पुणे-४११ ००७ दुरध्वनी क्र. : ०२०-२५६०१२५७/५८/५९ Savitribai Phule Pune University ई-मेल : boards@pun.unipune.ac.in संकेतस्थळ : www.unipune.ac.in संदर्भ कः CB/95/T/119

सावित्रीबाई फुले पुणे विद्यापीठ (पूर्वीचे पुणे विद्यापीठ)

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Academic Section Ganeshkhind, Pune - 411 007 Phone : 020-25601257/58/59 E-mail : boards@pun.unipune.ac.in Website : www.unipune.ac.in

Grian: 12/02/2020

## परिपत्रक क्रमांक. 3९/२०२०

विषय :- विज्ञान व तंत्रज्ञान विद्याशाखेंतर्गत चतुर्थ वर्ष अभियांत्रिकीच्या Civil (२०१५ पॅटर्न) अभ्यासकमामध्ये नवीन 'Open Elective' चा समावेश शैक्षणिक वर्ष २०१९–२० पासन करणेबाबत...

> विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार सर्व संबंधितांस या परिपत्रकाद्वारे कळविण्यात येते की, विज्ञान व तंत्रज्ञान विद्याशाखेंतर्गत चतुर्थ वर्ष अभियांत्रिकीच्या Civil (२०१५ पॅटर्न) अभ्यासकमामध्ये खालील नवीन 'Open Elective' चा समावेश करण्यास शैक्षणिक वर्ष २०१९-२० पासन मान्यता देण्यात येत आहे.

Sr.No.	Subject Name
1	Repairs & Rehabilitation of Concrete Structures
2	Artificial Neural Networks in Civil Engineering
3	Forensic Civil Engineering

सदर अभ्यासकम सावित्रीबाई फुले पुणे विद्यापीठाच्या www.unipune.ac.in या वेबसाईटवर Syllabi - Academic Year 2019 - Faculty of Science and Technology (Engineering) या शीर्षकाखाली उपलब्ध आहे.

मा. प्राचार्य, सर्व संलग्नित अभियांत्रिकी महाविद्यालये यांना विनंती की, सदर परिपत्रकाचा आशय सर्व संबंधितांच्या निदर्शनास आणुन द्यावा.



उपकुलसचिव (शैक्षणिक विभाग)

> PRINCIPAL Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin: 412 366)

प्रत माहितीसाठी व पुढील योग्य त्या कार्यवाहीसाठी:--

१. मा. अधिष्ठाता, विज्ञान व तंत्रज्ञान विद्याशाखा २. मा. प्राचार्य, सर्व संलग्नित अभियांत्रिकी महाविद्यालये मा. संचालक, सर्व मान्यताप्राप्त परिसंस्था ४. मा. संचालक, परीक्षा व मूल्यमापन मंडळ ५. मा. संचालक, स्पर्धा परीक्षा केंद्र ६. मा. उपकुलसचिव, परीक्षा (१,२) ७. मा. उपकुलसचिव, नियोजन व विकास विभाग ८. मा. उपकलसचिव, शैक्षणिक पात्रता विभाग ९. मा. उपकुलसचिव, सभा व दप्तर विभाग १०. मा. उपकुलसचिव, परीक्षा—एस.ॲण्ड टी. विभाग ११. मा. उपकुलसचिव, शैक्षणिक प्रवेश विभाग १२. सहायक कुलसचिव, गोपनीय कक्ष १३. सहायक कुलसचिव, संलग्नता कक्ष १४. सहायक कुलसचिव, परीक्षा समन्वय १५ सहायक कुलसचिव, मा. प्र-कुलंगुरू कार्यालय १६, वरिष्ठ कायदा अधिकारी १७, जनसंपर्क अधिकारी १८. कक्षाधिकारी, बहिःस्थ विभाग १९. प्रमुख, विद्यापीठ उपकेंद्र : अहमदनगर, नाशिक.

२०. सिस्टीम ॲनालिस्ट डेटा प्रोग्रेसिंग युनिट

वि.प. ठराव क. ब १८पीए/१८/२०२०, दि. २३, जानेवारी २०२०



PRINCIPAL

Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin : 412 366)

# Savitribai Phule Pune University UG CHOICE BASED CREDIT SYSTEM



## **RULES AND REGULATIONS**

FOR

## UNDER GRADUATE ROGRAMME IN ENGINEERING

UNDER



FACULTY OF SCIENCE AND TECHNOLOGY

WITH EFFECTIVE FROM A.Y. 2019-20

PRINCIPAL Shandchandra Panar College of Engineering & Technology Someshnamagar, Tal. Baramak, Dist. Pume (Pin: 412 366)

## **Course Structure, Guidelines, Rules and Regulations**

#### Preamble

Economic progress of country is strongly linked with quality of technical education. Engineering education is gaining new heights and it contributes substantial share in overall education system. Engineering graduates are to be educated and trained with a view of employability and sustainability. With the advent of technology and ever-changing expectations from the Industry and Society, revision of curriculum is need of the day, making it contemporary and relevant. In a bid to fine tune our technical education system to the global standards & practices, the Credit-Grade based performance and assessment system has been already implemented with effect from June 2015 onwards for all the Under Graduate Programme (UG) under the Faculty of Science & Technology.

To fulfill the necessities, the youngsters pursuing engineering studies need to be well equipped and acquaint with the latest technological trends and industrial requirements. This is possible only when the students undergo studies with an updated and evolving curriculum to match global scenario. The faculty of Science & Technology has shouldered the idea of incorporating latest advances and to upgrade the course contents with latest and relevant topics and know-how. Accordingly the new structure and curriculum are being introduced to be implemented from the academic year 2019-20 for First Year Engineering and the process will continue for subsequent years for second, third and fourth year engineering.

### **General Guidelines**

- 1. All undergraduate programmes in Engineering under faculty of Science & Technology will be of **four years** duration and **eight semesters**.
- 2. The total number of credits required to earn for the **completion of the programme is 170 credits** in a minimum period of **eight semesters**.
- 3. All UG programme, under Faculty of Science & Technology shall be offered with **170 credit**; one credit is approximately equivalent to 15 contact hours.
- 4. Assessments in Choice based Credit System consists of
  - A) In-semester examination
  - B) End-semester examination
  - C) Continuous assessment for various examination heads.

Assessment and Evaluation is to be done as per guidelines provided by competent authority.

 Semester 1 and semester 2 will be part of First Year of Engineering (FE), Semester 3 and semester 4 will be part of Second Year of Engineering (SE), Semester 5 and semester 6 will be part of Third Year of Engineering (TE), Semester 7 and semester 8 will be part of Final Year of Engineering (BE)

### 6. Induction Program

Induction programme for first year students is introduced to familiarize them to the new environment and encourage them to learn beyond classrooms. Objective is to help new students adjust and feel comfortable in the new environment, inculcate in them the ethos and culture of the institution, help them build bonds with other students and faculty members, and expose them to a sense of larger purpose and self exploration. Induction Program should be preferably of 3 weeks (2 weeks at beginning first semester and 1 week at the beginning of second semester). In order to implement the (SIP) in the College the following activities can be taken at College.

- Physical Activity: This would involve a daily routine of physical activity with games and sports.
- Creative Arts: Every students would chose one skill related to arts whether visual arts or performing arts.





faculty mentor each. This can be implemented through group discussion and real life activities rather than only lecturing.

- Familiarization with College, Department and Branch :- The incoming student should be told about the credit, grading system and scheme of the examination. They should be explained how the study in College differs from the study in school. They should be taken on College tour and shown important facilities such as library, canteen, gymkhana etc. They should be shown their own department.
- Literary Activity:-Literary Activity would compass reading book, writing a summary, debating, enacting a play etc.
- Proficiency modules: The modules can be designed to overcome some critical lacunas that students might have like English Speaking, Computer familiarity etc.
- Lectures by Eminent People: The lectures of Eminent people be organized to expose the students to social activity and public life.
- Visit to local Area:- A couple of visits to the landmarks of the city or a hospital are orphanage could be organized.
- Extracurricular activities in College:-The new students should be introduced to the extracurricular activities at the College.
- Feedback and Report on the program:-Students should be asked to give their mid program Feedback wherein each group of 22-24 students should be asked to prepare a single report on their experience of the program.

To summarize the above activity the sequence of activities can be planned as given below:

- Address by Principal, HOD's and other functionaries and welcome the new students along with their parents.
- The branch wise allocation of students to be done and a group of 22-24 students is to be formed along with one faculty as mentor.
- A detail time table of various activities is to be prepared and displayed for all students. The timetable should give details of location and details of faculty in charge of the activity.
- The visit to local areas can be arranged on Saturdays.
- The various activities to be carried out can be divided into three phases :-
  - 1. Initial phase:- Which may include Address by Principal, HOD's and other functionaries College and Dept Visit, interaction with parents Forming of students group and assigning of mentor mentee.
  - 2. Regular Phase:- This phase may include the activities such as creative arts / universal Human values Games & Sports in the morning session and in the afternoon session. Literary activities, Proficiency module, Lectures & workshop, Extracurricular Activities etc. can be scheduled.
  - 3. Closing Phase:- This phase may include taking feedback of students, preparation of Report by each group, Test of creative Arts, Human Values can be taken.

These are summarized guidelines to be given to the student inducing induction programme (SIP). Please refer SIP Manual published by AICTE for detail guidelines[2].

## 7. Project based Learning:

For better learning experience, along with traditional classroom teaching and laboratory work based learning, project based learning has been introduced with an objective to orcerotivate students to learn by working in group (5 to 6 students per group) courteously to PRINCIPAL Sunctional Parar College of Engineering & Technology solve a problem. Students may undertake a problem which can be theoretical, practical, social, technical, symbolic, cultural and/or scientific and grows out of students' wondering within different disciplines and professional environments. A chosen problem has to be **exemplary**. The problem may involve an interdisciplinary approach in both the analysis and solving phases. Such practice will also increase their capacity and learning through shared cognition. [3] [5].

## 8. Laboratory Course:

The laboratory work will be based on completion of experiments/ lab assignments confined to the related companion courses of the semester.

## 9. Seminar:

Seminar shall be on state-of-the-art topic selected by student and approved by the authority. The student shall submit the duly certified seminar report in standard format, for satisfactory completion of the work by the concerned Guide and head of the department/institute.

## 10. Project Work at Final Year:

Project work in the seventh semester is an integral part of the project work. The project work shall be based on the knowledge acquired by the student during the graduation and preferably it should meet and contribute towards the needs of the society. The project aims to provide an opportunity of designing and building complete system or subsystems based on area where the student likes to acquire specialized skills. The student shall prepare the duly certified final report of project work in standard format for satisfactory completion of the work by the concerned guide and head of the Department/Institute.

### 11. Internship

Internships are educational and career development opportunities, providing practical experience in a field or discipline. Internships are far more important as employers are looking for employees who are properly skilled. They are structured, short-term, supervised placements often focused around particular tasks or projects with defined time scales. Core objective is to expose technical students to the industrial environment, which cannot be simulated/experienced in the classroom and hence creating competent professionals in the industry and to understand the social, economic and administrative considerations that influence the working environment of industrial organizations. Student may choose to undergo Internship at Industry/Govt./NGO/MSME/Rural Internship/ Innovation/ IPR/Entrepreneurship. Student may choose either to work on innovation or entrepreneurial activities resulting start-up undergo in or internship with industry/NGO's/Government organizations/Micro/Small/ Medium enterprises to make themselves ready for the industry [4]. Conduction, monitoring, assessment, and evaluation is to be done as per guidelines provided by AICTE [4].

### 12. Abbreviations:

**TW:** Term Work **TH:** Theory **OR:** Oral **TUT:** Tutorial **PR:** Practical **Sem:** Semester, **PROJ:** Project Work, **ESE:** End Semester Examination **ISE:** In Semester Examination, CA: Continuous Assessment, **DW:** Drawing.

### Definition of Credit [1]\*\*:

1 Hour Lecture (L) per week	1 credit for 1 Hour
Tutorial (T) per week	1 credit for 1 Hour
Practical (P) per week 2	1 credit for 2 Hours
Hours Practical(Lab)/week	

\*\* The head of Tutorial and Practical (as a special case) may be merged for common credit

with the permission of authority.



PRINCIPAL

Sharadchandra Pawar College of Engineering & Technology Someshwamagar, Tal. Baramati, Dist. Pune (Pin : 412 366)

#### This document includes following sections-

- I. Undergraduate Engineering Programme Structure
- II. Examination Scheme
- III. Structure of Question Paper
- IV. Assessment
- V. Rules of Passing
- VI. Rules of ATKT (Allowed To Keep Term)
- VII. Assessment and Grade Point Average
- VIII. Performance Indices
- IX. Result

References

## 1) UG Programme Structure and Credit Distribution:

Each B.E. / B. Tech. programme is of 4 years duration. The minimum total number of credit requirement for each programme is 170. In the structure, the credits are distributed over 8 semesters. The open elective included, gives the student a wide choice of subjects from other programme. The Credit structure for Bachelor of Engineering programme is given below in Table 1.

Credits offered										
Course Work	Semester								Total	
	Ι	Π	III	IV	V	VI	VII	VIII		
Professional Theory Courses *	17	16	15	15	12	06	06	06	90	
Elective Courses^	-	-	-	-	03	03	06	06	18	
Laboratory Courses/ continuous assessment/TW	05	04	07	05	05	05	06	02	42	
Seminar &Communication Skills	-	-	I		01	01		-	02	
Project Work	-	-	-	-	-	02	02	06	10	
Project Based Learning		02		02					04	
Internship <sup>\$</sup>						04			04	
Total	22	22	22	22	21	21	20	20	170	
Mandatory Non_Credit_Graded_Au	ıdit	Соі	ırse	# pe	er se	mes	ster			
Induction Program at first year Engineering				3 w	veek	du	ation	1		
	(	2 w	eek	at t	he b	egii	nning	g of S	em-I	
	& 1	l we	ek	at tł	ne be	egin	ning	of Se	em-II)	

## TABLE 1: Credit Structure for UG programme in Engineering

\*: Professional Courses include - Engineering Science Courses including Workshop, Drawing, basics of Electrical/Electronics/Mechanical/Computer/Civil Engineering, Humanities and Social Sciences including Management/Finance Management courses, Basic Science courses and Professional core courses.

^: Professional Elective courses relevant to chosen specialization/branch and Open Electives (interdisciplinary and /or emerging technology)

#: There will be mandatory **Non\_Credit Course** per Semester viz- Environmental Studies, Indian Constitution, Essence of Indian Traditional Knowledge, financial Management and courses introduced time to time by university or apex bodies.

<sup>\$ :</sup> Internship to be completed after semester 5 and to be assessed in semester 6. Internship will be of 4 to 6 weeks maximum.



PRINCIPAL Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin: 412 366)

	TABLE -	2 Firs	t Eng	ginee	ring _	_Struc	eture	for Se	emest	e r-I				
Course Code	Course Name	Te So (Hou	Teaching SchemeExamination Scheme and Marks(Hours/Week)					Credits						
		Theory	Practical	Tutorial	ISE	ESE	ΤW	PR	OR	Total	ΗT	PR	TUT	Total
107001	Engineering Mathematics-I	03		01	30	70	25			125	03		01	04
107002/ 107009	Engineering Physics / Engineering Chemistry	04	02		30	70		25		125	04	01		05
102003	Systems in Mechanical Engineering	03	02		30	70		25		125	03	01		04
103004 / 104010	Basic Electrical Engineering / Basic Electronics Engineering	03	02		30	70		25		125	03	01		04
110005/ 101011	Programming and Problem Solving / Engineering Mechanics	03	02		30	70		25		125	03	01		04
111006	Workshop <sup>@</sup>		02					25		25		01		01
	Total	16	10	01	150	350	25	125		650	16	05	01	22
101007	Audit Course 1 <sup>&amp;</sup>	02	2 Environmental Studies-I											
Inducti	on Program : 2 weeks at	the be	eginn	ing o	fsem	ester-	I and	1 wee	k at t	he beg	inning	g of s	emest	er-II
	TABLE -	3 Firs	t Eng	ginee	ring_	Struc	ture	for Se	emest	er-II				
Course Code	Course Name	Te Se	Teaching Scheme				ination Scheme and Marks				Credits			
		(Hou	rs/W	eek)			Ma	arks				ere	uits	
		Theory	Practical A	Tutorial (yaa	ISE	ESE	Ma	arks <b>Nd</b>	OR	Total	HL	PR		Total
107008	Engineering Mathematics-II	04	Practical A	( <b>A 99</b> ) Utorial	<b>ISE</b> 30	ESE 70	M: ML 25	arks Nd	OR	Lotal 125	HL 04	 PR	<b>LDL</b> 01	Total
107008 107002/ 107009	Engineering Mathematics-II Engineering Physics/ Engineering Chemistry	<b>fig. f. 100 up (L)</b> 04 04	W/sr Bractical	( <b>kek</b> ) <b>L</b> ntorial 10	<b>ESI</b> 30 30	<b>H</b> <b>H</b> <b>H</b> <b>H</b> <b>H</b> <b>H</b> <b>H</b> <b>H</b> <b>H</b> <b>H</b>	M: ML 25 	<b>arks</b> <b>25</b>	 <b>OR</b>	<b>International Content</b>	<b>HL</b> 04 04	<b>84</b>  01	<b>LDL</b> 01	05 05
107008 107002/ 107009 103004 / 104010	Engineering Mathematics-II Engineering Physics/ Engineering Chemistry Basic Electrical Engineering / Basic Electronics Engineering	<b>A</b> <b>A</b> <b>A</b> <b>A</b> <b>A</b> <b>A</b> <b>A</b> <b>A</b> <b>A</b> <b>A</b>	 Dractical 02	<pre>cek) Lutorial</pre>	<b>HSI</b> 30 30 30	<b>ESE</b> 70 70 70	M: <u>ML</u> 25 	arks 25 25	 	<b>Et D</b> 125 125 125	<b>HL</b> 04 04 03	<b>24</b>  01 01	<b>101</b> 01 	<b>Lotal</b>
107008 107002/ 107009 103004 / 104010 110005/ 101011	Engineering Mathematics-II Engineering Physics/ Engineering Chemistry Basic Electrical Engineering / Basic Electronics Engineering Programming and Problem Solving / Engineering Mechanics	(Hold <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b> <b>file</b>	W/87 Water   20 20 20	Lutorial	30 30 30 30 30	70           70           70           70           70           70	M: 25  	arks 25 25	 	<b>Exp</b> 125 125 125 125	<b>H</b> 04 04 03 03	 01 01	01  	<b>Lotal</b> 05 04 04
107008 107002/ 107009 103004 / 104010 110005/ 101011 102012	Engineering Mathe matics-II Engineering Physics/ Engineering Chemistry Basic Electrical Engineering / Basic Electronics Engineering Programming and Problem Solving / Engineering Mechanics Engineering Graphics <sup>12</sup>	(Hold Internet internet intern	<b>W</b> \sr <b>Practical</b>  02 02 02 02 02	Image: Constraint of the second sec	30 30 30 30 	HE           70           70           70           70           70           50	M: 25   2	arks           arks	  	<b>Iz5</b> 125 125 125 125 125	HL           04           04           03           03           01	01 01 01 01	01  	<b>Lotal</b> 05 05 04 04 02
107008 107002/ 107009 103004 / 104010 110005/ 101011 102012 110013	Engineering Mathe matics-II Engineering Physics/ Engineering Chemistry Basic Electrical Engineering / Basic Electronics Engineering Programming and Problem Solving / Engineering Mechanics Engineering Graphics <sup>12</sup> Project Based Learning <sup>§</sup>	Image: Additional system           04           04           04           04           03           01	W/87 With a state of the state of	Tutorial                 01              01              01              01	30 30 30 30  	ES           70           70           70           70           70           50	M: 25   25	Yarks              25           25           25           5           50	   	Item           125           125           125           125           125           75           75	HL           04           04           03           03           01	E              01           01           01           01           02	101 01   1 	Image: Logic line           05           05           05           04           02           02           02
107008 107002/ 107009 103004 / 104010 110005/ 101011 102012 110013	Engineering Mathematics-II Engineering Physics/ Engineering Chemistry Basic Electrical Engineering / Basic Electronics Engineering Programming and Problem Solving / Engineering Mechanics Engineering Graphics <sup>12</sup> Project Based Learning <sup>§</sup>	Image: Action of the second	W/87 With a constraint of the second	Teek)           01              01              01              01              01              01              01              01              01              01              01              01              02	30 30 30 30 30  120	Figure 1         70         70         70         70         70         70         330	M: 25   25 75	arks 25 25 5 50 125	   OR	Ite           125           125           125           125           125           125           650	HL           04           04           03           03           01              15	<b>24</b> 01 01 01 01 02 05	101 01  1  02	Image: Logic line           05           05           04           02           02           22
107008 107002/ 107009 103004 / 104010 110005/ 101011 102012 110013 101014	Engineering Mathematics-II Engineering Physics/ Engineering Chemistry Basic Electrical Engineering / Basic Electronics Engineering Programming and Problem Solving / Engineering Mechanics Engineering Graphics <sup>Ω</sup> Project Based Learning <sup>§</sup> Total	Kioopul           04           04           04           03           01              15           02	W/87 With a constraint of the second	Image: constraint of the second sec	30 30 30 30 30  120	70 70 70 70 70 70 50  330	M: 25   25 75 Enviro	arks           24              25           25           5           50           125	    ttal St	<b>IED</b> 125 125 125 125 125 75 75 650 udies-	HL           04           04           03           03           01              15           II	Chi Control 1       01       01       01       01       01       02       05	Int       01             1          02	Item           05           05           04           02           02           22



PRINCIPAL Staradchandra Pawar College of Engineering & Technology Sonestmannagar, Tall Baramati, Dist. Pune (Fin: 412.366)

## Instructions:

- PR/Tutorial must be conducted in three batches per division.
- Minimum number of required Experiments/Assignments in PR/ Tutorial shall be carried out as mentioned in the syllabi of respective subjects.
- Every Student should appear for Engineering Physics, Engineering Chemistry, Engineering • Mechanics, Basic Electrical Engineering, Basic Electronics Engineering, Programming and Problem solving during the year.
- College is allowed to distribute Teaching workload of subjects Engineering Physics, Engineering Chemistry, Basic Electrical Engineering, Basic Electronics Engineering, Engineering Mechanics, Programming and Problem solving in semester I and II dividing number of FE divisions into two appropriate groups.
- Assessment of tutorial work has to be carried out as term-work examination. Term-work Examination and Practical Examination at first year of engineering course shall be internal continuous assessment only.
- $\Omega$  1 Credit for Engineering Graphics theory has to be awarded on the basis of End semester examination of 50 marks while 1 credit of tutorial and practical shall be awarded on internal continuous assessment only.
- @ Credit for the course of workshop practical is to be awarded on the basis of continuous assessment / submission of job work.
- § Project based learning (PBL) requires continuous mentoring by faculty throughout the semester for successful completion of the tasks selected by the students per batch. While assigning the teaching workload a load of 2 Hrs/week/batch needs to be considered for the faculty involved. The Batch needs to be divided into sub-groups of 5 to 6 students. Assignments / activities / models/ projects etc. under project based learning is carried throughout semester and Credit for PBL has to be awarded on the basis of internal continuous assessment and evaluation at the end of semester.
- & Audit course for Environmental Studies and II (As per D.O.No.F.13-1/2000 (EA/ENV/COS-I) dated 14 May, 2019) is mandatory but non-credit course. Examination has to be conducted at the end of Sem I & II respectively for award of grade at college level. Grade awarded for audit course shall not be calculated for grade point &CGPA.

Audit course for Physical education is mandatory non-credit course. Examination has to be conducted at the end of Semester for award of grade at college level. Grade awarded for audit course shall not be calculated for grade point &CGPA.

Subject Head	Duration	ISE	ESE	PR/OR	TW	Credits
	(Hrs/week)			Marks	Marks	
Theory	15	150	350			15
PR/OR/Tut	14			100	100	07
Total	29	150	350	100	100	22

**TABLE -4 Structure for Semester-III** 

1	College WEIg	1
Chanal La	DTE CODE	ALIUM
les.	Showmanay	

Subject Head

TABLE	-5	Structure	for	Semester-IV
-------	----	-----------	-----	-------------

**ESE** 

ISE

Duration

	(Hrs/week)			Marks	Marks		l
Theory	15	150	350			15	
PR/OR/Tut	10			100	50	05	
Project based	04				50	02	Į.
learning						20 10	
Total	29	150	350	100	100	-22 m	11º
					Char	PRINC	IPAL

PR/OR

TW

lege of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin: 412 366)

Credits

Subject Head	Duration	ISE	ESE	PR/OR	TW	Credits
-	(Hrs/week)			Marks	Marks	
Theory	15	150	350			15
PR/OR/Tut	10			100	50	05
Seminar	01				50	01
Total	26	150	350	100	100	21

 TABLE -6 Structure for Semester-V

 TABLE -7 Structure for Semester-VI

Subject Head	Duration	ISE	ESE	PR/OR	TW	Credits
	(Hrs/week)			Marks	Marks	
Theory	12	120	280			12
PR/OR/Tut	10			100	100	05
Internship	04				100	04
Total	26	120	280	100	200	21

TABLE -8 Structure for Semester-VII

Subject Head	Duration	ISE	ESE	PR/OR	TW	Credits
-	(Hrs/week)			Marks	Marks	
Theory	12	120	280			12
PR/OR/Tut	08			100	50	04
Moocs etc.					50	02
Project	04			50	50	02
Stage-1						
Total	24	120	280	150	150	20
Credits of MO	OCs Courses	shall b	e awar	ded based	l on comp	letion
of relevant cou	of relevant course (recommended by college / University) of					
equivalent or more credits and submission of Certificate to college.						
College shall submit the same to university through online process						
to be followed in due course.						

Subject Head	Duration	ISE	ESE	PR/OR	TW	Credits
	(Hrs/week)			Marks	Marks	
Theory	12	120	280			12
PR/OR/Tut	04			100	50	02
Project	12			50	100	06
Stage-2						
Total	28	120	280	150	150	20

TABLE -9 Structure for Semester-VIII

Note: Any Course offered (Semester-III to Semester-VIII) should be of minimum 2 credits. 2. Examination Scheme:

## **R.21**

The theory examination shall be conducted in two phases for all the subjects of semester-I to semester-VIII.

### **R2.1.1:** Phases of Examination

**Phase I** as In-Semester Examination of 30 marks written theory examination based on Unit-1 and Unit-2 of course syllabus scheduled by university



PRINCIPAL Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin: 412 366).

**Phase II** as End-Semester Examination of 70 marks written theory examination based on unit number 3, 4, 5, 6 of course syllabus scheduled by university.

## 3. Structure of Question Paper:

R3.1 Two units (Unit1 and Unit 2) will be covered for 30 Marks for Phase 1 (ISE). Equal weightage will be given to both the units (15 Marks each)

R3.2 Four units (Unit 3, Unit 4, Unit 5 and Unit 6) shall have weightage of 70 Marks for Phase 2 (ESE). Marks weightage for the unit 3, unit 4, unit 5 and unit 6 shall be as shown in Table no.10

• Marks weightage to be given for questions per unit is as –

	The second secon			
Unit Number	Phase I	Phase II		
	ISE	ESE		
	Marks Weightage	Marks Weightage		
1	15			
2	15			
3		18		
4	-	17		
5		18		
6	-	17		

## TABLE -10. Marks weightage per unit for examination

R3.3 Paper will have only one section and two questions for ISE and four questions for ESE. For each question there will be alternate Question based on same unit and of the same marks. R3.4 Framing of questions should be according to Anderson/Blooms Taxonomy and disseminated through the question papers with a mention of course outcomes as well.

## 4. Assessment

A. Theory:

### **R4.1**

ISE assessment will be done at the centralized assessment programme (CAP) Centre of the College by the Expert who is appointed as an examiner for the courses as per 48(3) panel of Maharashtra public university act 2016.

## R4.2

ESE assessment will be done at the CAP Centre designated by the University by the Expert who is appointed as an examiner for the subject as per 48(3) panel.

## B. Term work:

## R4.3

Term Work assessment shall be conducted for the Lab Practice, Project, Tutorials and Seminar. Term work is continuous assessment based on work done, submission of work in the form of report/journal, timely completion, attendance, and understanding. It should be assessed by subject teacher of the institute for first to sixth semester and by the external examiner at seventh and eighth semester. At the end of the semester, the final grade for a Term Work shall be assigned based on the performance of the student and is to be submitted to the Savitribai Phule Pune University (SPPU). A student who fails in the Term Work on account of unsatisfactory performance shall be given F grade and on the account of inadequate attendance shall be given FX grade. Failing in a particular course Term Work shall not be the criteria for detention in the semester.

## C. Practical/Oral/Presentation:

### **R.4.5**

Practical/Oral/presentation is to be conducted and assessed jointly by internal and external examiners. The performance in the Practical/Oral/Presentation examination shall be assessed by at



least one pair of examiners appointed as examiners by the Savitribai Phule Pune University. The examiners will prepare the mark / grade sheet in the format as specified by the Savitribai Phule Pune University and authenticate it.

## D. Project Based Learning

## R4.6

It is recommended that the all activities are to be record and regularly, regular assessment of work to be done and proper documents are to be maintained at college end by both students as well as mentor (you may call it PBL work book). Continuous Assessment Sheet (CAS) is to be maintained by all mentors/department and institutes.

Recommended parameters for assessment, evaluation and weightage:

- Idea Inception (5%)
- Outcomes of PBL/ Problem Solving Skills/ Solution provided/ Final product (50%) (Individual assessment and team assessment)
- Documentation (Gathering requirements, design & modeling, implementation/execution, use of technology and final report, other documents) (25%)
- Demonstration (Presentation, User Interface, Usability etc) (10%)
- Contest Participation/ publication (5%)
- Awareness /Consideration of -Environment/ Social /Ethics/ Safety measures/Legal aspects (5%)

PBL workbook will serve the purpose and facilitate the job of students, mentor and project coordinator. This workbook will reflect accountability, punctuality, technical writing ability and work flow of the work undertaken.

## E. Internship

## R4.7

Student may choose to undergo Internship at Industry/Govt./NGO/MSME/Rural Internship/ Innovation/ IPR/Entrepreneurship. Student may choose either to work on innovation or entrepreneurial activities resulting in start-up or undergo internship with industry/NGO's/Government organizations/Micro/Small/ Medium enterprises to make themselves ready for the industry[4].

Every student is required to prepare a maintain documentary proofs of the activities done by him. The evaluation of these activities will be done by Programme Head/Cell In-charge/ Project Head/ faculty mentor or Industry Supervisor based on- Overall compilation of internship activities, sub-activities, the level of achievement expected, evidence needed to assign the points and the duration for certain activities.

Based on internship the assessment and evaluation parameters may include as-

- Working for consultancy/ research project,
- Participation at Events (Technical / Business)
- Participation in innovation related completions for eg. Hackathon etc.),
- Contribution in Incubation/ Innovation/ Entrepreneurship Cell/ Institutional Innovation Council,
- Learning at Departmental Lab/Tinkering Lab/ Institutional workshop,
- Development of new product/ Business Plan/ registration of start-up,
- Participation in IPR workshop/Leadership Talks/ Idea/ Design/ Innovation/ Business Completion/ Technical Expos.

It is necessary to produce participation certificate, if applicable.

## F. Seminar and Communication Skills

## **R4.8**

Seminar is the first formal curricular activity at the UG level, where students are supposed to exhibit their communication skills and knowledge by undertaking the study of the chosen topics. Core objective is to explore the basic principles of communication (verbal and non-verbal) and



active, empathetic listening, speaking and writing techniques. It exposes the student to new technologies, researches, products, and services.

Authorities/ examiner (optional) along with a guide would be assessing the seminar work based on various parameters which may include- Topic selection, Contents and Presentation, regularity, Punctuality and Timely Completion, Question and Answers, Report, Paper Presentation/Publication, Attendance and Active Participation in overall class activity.

## G. Project Work at Final Year

## R4.9

Progress of project work is monitored regularly on weekly project slot/project day. Regular interval presentations are to be arranged to review and assess the work. During process of monitoring and continuous assessment AND evaluation the individual and team performance is to be measured.

Project work is monitored and continuous assessment is done by guide and authorities. During university examination Internal examiner (preferably the guide) and External examiners jointly, evaluate the project work. Recommended performance measure parameters may include-Problem definition and scope of the project, Literature Survey, Appropriate Engineering approach used, Exhaustive and Rational Requirement Analysis, Comprehensive Implementation- Design, modeling, documentation, Usability, Optimization considerations(Time, Resources, Costing), Thorough Testing, Project Presentation and Demonstration(ease of use and usability), Social and environment aspects, Presentation of work in the form of Project Report(s), Understanding individual capacity, Role & involvement in the project, Team Work (Distribution of work, intrateam communication and togetherness), Participation in various contests, Publications and IPR, Manuals(Project Report, Quick reference, System, Installation guide) among other parameters.

## 5. Rules of Passing

## **R5.1**

To pass the Term Work / Practical / Oral/ presentation the student has to earn Minimum of 40 percent marks in each respective examination head.

## **R5.2**

To pass the Theory Subject head the student has to earn minimum of 40 percent marks in End-Semester examination and 40 percent total marks (In-Semester Examination and End-Semester Examination).

## R5.3

The failing student can repeat the End-semester examination to pass the head in any semester and the In-Semester Examination marks will be retained as it is. OR the failing student can repeat for the End-Semester Examination as well as In-semester examination for the head of Even semester in the Even semester only and for the head of Odd semester in the Odd semester only for the theory head

## **R5.4**

To earn credits of a course (Theory/term work/practical/oral/presentation) student must pass the course with minimum passing marks/grade.

## R5.5

Student can apply only for the Revaluation/Photocopying of End-Semester theory examination.

## 6. Rules of ATKT (Allowed To Keep Term):

## **R6.1**

A student can register for the third semester (SE), if he/she earns minimum 50% credits of the total of first and second semesters (FE).

## **R6.2**

A student can register for the fifth semester (TE), if he/she earns minimum 50% credits of the total of third and forth semesters (SE) and all the credits of first and second semester (FE). **R6.3** 

A student can register for the seventh semester(BE), if he/she earns minimum 50% credits of the total of fifth and sixth semesters(TE) and all the credits of third and forth semester(SE).





## **R6.4**

A student will be awarded the bachelor's degree if he/she earns 170 credits and clears all the mandatory non credit courses in respective semesters

## 7. Assessment and Grade Point Average:

## **R7.1** Marks/Grade/Grade Point

A grade is assigned to each head based on marks obtained by a student in examination of the course. The marks obtained in In-semester and end-semester examination are considered together to calculate the grade of the course. These grades, their equivalent grade points are given in Table 11.

Grade	Grade Point	Percentage of Marks Obtained	Remarks
0	10	90-100	Outstanding
Α	9	80-89	Very Good
В	8	70-79	Good
С	7	60-69	Fair
D	6	50-59	Average
Ε	5	40-49	Below Average
F	0	Below 40	Fail
FX	0		Detained, Repeat the Course
IC	0		Incomplete Course Absent for
			Exam but continue for the course
AC			Audit Course Completed
ACN			Audit Course Not Completed

TABLE 11. Grade and Grade Point

## 7. Passing Grade:

- The grades O, A, B, C, D, E are passing grades.
- A candidate acquiring any one of these grades in a course shall be declared as PASS. And student shall earn the credits for a course only if the student gets passing grade in that course.
- F Grade The grade F shall be treated as a failure grade.
- The student with F grade will have to pass the concerned course by re-appearing for the examination.
- The student with F grade for any stage of the Project Work, will have to carry out additional work/ improvement as suggested by the examiners and re-appear for the examination.
- AC and ACN Grade The student registered for audit course shall be awarded the grade AC after satisfactory completion of audit course and shall be included in the Semester grade report for that course, provided student has the minimum attendance as prescribed by the SPPU and satisfactory In-semester performance and secured a passing grade in that course. Student who is unable to complete audit course will be awarded as ACN grade.
- FX Grade-The grade FX in a course is awarded by the college, if a student does not maintain the minimum attendance in the Lecture / Tutorial class as prescribed by the SPPU and/or his performance during the semester is not satisfactory and/or he/she fails in the Term Work head of that course.
- The student with FX grade in a given course is not permitted to take the end of semester examination in that course. Such a student will have to re-register for the course.
  - The student with F / FX in a course shall not be awarded any credits for that course.





## 8. Performance Indices:

## **R8.1**

The semester end grade sheet will contain grades for the courses along with titles and SGPA. Final grade sheet and transcript shall contain CGPA.

## **R8.2**

**SGPA** -The performance of a student in a semester is indicated by a number called the Semester Grade Point Average (SGPA). The SGPA is the weighted average of the grade points obtained in all the courses, seminars and projects registered by the student during the semester.

Semester Grade Point Average (SGPA) =  $\frac{\sum_{i=1}^{p} C_{i}G_{i}}{\sum_{i=1}^{p} C_{i}}$ 

$$SGPA = \frac{\sum GradePointsEarnedXCreditsForEachCourse}{TotalCredits}$$

For Example: suppose in a given semester a student has registered for five courses having credits C1, C2, C3, C4, C5 and his / her grade points in those courses are G1, G2, G3, G4, G5 respectively. Then students

$$SGPA = \frac{c_{1G1} + c_{2G2} + c_{3G3} + c_{4G4} + c_{5G5}}{c_{1} + c_{2} + c_{3} + c_{4} + c_{5}}$$

SGPA and CGPA is calculated up to two decimal places by rounding off.

## **R8.3**

**CGPA-** The CGPA is the weighted average of the grade points obtained in all the courses (Theory/term work/practical/oral/presentation) of first semester to eighth semester for the students admitted in the First year and third to eighth semester for the students directly admitted at Second year.

CGPA is calculated in the same manner as the SGPA.

## **R8.4**

In case of a student passing a failed course or in case of improvement, the earlier grade would be replaced by the new grade in calculation of the SGPA and CGPA.

## 9. Result:

## **R9.1**

Based on the performance of the student in the semester examinations, the Savitribai Phule Pune University will declare the results and issue the Semester Grade sheets. The class shall be awarded to a student on the CGPA calculated. The award of the class shall be as per Table 12.

Table 12, CGT A and Class awarded					
Sr. No.	CGPA	Class of the Degree Awarded			
1.	7.75 or More than 7.75	First Class with Distinction			
2.	6.75 or more but less than 7.75	First Class			
3.	6.25 or more but less than 6.75	Higher Second Class			
4.	5.5 or more but less than 6.25	Second Class			

Table 12. CGPA and Class awarded

## X. References

DIF CODE

[1] <u>https://www.aicte-india.org/sites/default/files/Vo1.%20I\_UG.pdf</u>

[2] https://www.aicte-india.org/sites/default/files/induction-guide-jun17-aicte%20(1).pdf

[3]<u>https://www.aicteindia.org/sites/default/files/</u> FINAL%20BEST%20PRACTICES% 20 IN %20AICTE%20APPROVED%20INSTITUTUIONS.pdf

- [4] <u>https://www.aicte-india.org/sites/default/files/AICTE%20Internship%20Policy.pdf</u>
- [5] <u>https://www.aicte-india.org/sites/default/files/ExaminationReforms.pdf</u>

[6] https://www.aicte-india.org/education/model-syllabus





SharadchandraPawar College of Engineering & Technology,<br/>Someshwarnagar Tal – Baramati, Dist – Pune 412 306(Approved by AICTE New Delhi, Recognized by Govt. of Maharashtra &Affiliated<br/>to SavitribaiPhule Pune University, Id.no.PU/PN.Engg./445/2012)<br/>+91-2112-283185+91-2112-283185Web :www.secsomeshwar.ac.in\*Email:sspm1972@gmail.com

## **CRITERION 1 – Curricular Aspects**

## Key Indicator – 1.2 Academic Flexibility

**1.2.1** Number of Programmes in which Choice Based Credit System( CBCS)/ Elective course system has been implemented during the academic year 2023-2024

Name of Programmes Adopting CBSC/ Elective Course	Programme Specification	Date of Implementation of CBSC/Elective Course
System		System
BE	Integrated Water Resources Planning & Management 401003c Elective III( Civil Engineering)	10/07/2023
BE	Airport and Bridge Engineering 401004 d Elective IV( Civil Engineering)	10/07/2023
BE	Structural Design of Bridges 401013 b Elective V( Civil Engineering)	11/12/2023
BE	TQM and MIS 401014 a Elective VI( Civil Engineering)	11/12/2023
BE	Industrial Engineering 402044D Elective III(Mechanical Engineering)	10/07/2023
BE	Additive Manufacturing 402045C Elective IV(Mechanical Engineering)	10/07/2023
BE	Energy Audit and Management 402050B Elective V(Mechanical Engineering)	11/12/2023
BE	Electrical and Hybrid Vehicle 402051E Elective VI(Mechanical Engineering)	11/12/2023
BE	PLC and SCADA 403143AElective III(Electrical Engineering)	10/07/2023
BE	Electrical & Hybrid Vehicle 403144B Elective IV( Electrical Engineering)	10/07/2023



#### ShriSomeshwarShikshanPrasarakMandal's

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\*Email:sspm1972@gmail.com

BE	Smart Grid 403 150 C Elective V(	11/12/2023
DE	Ullumination Engineering 402151D	11/12/2022
BE	Elective VI(Electrical Engineering)	11/12/2023
DE	Object Oriented Medeling and Design	10/07/2022
DE	410244(D)Elective III (Computer	10/07/2023
	410244(D)Elective III(Computer	
DE	Software Testing and Quality	10/07/2022
BE	A source of 410245(D)	10/0//2023
	Assurance $410245(D)$	
DE	Network Lewissing Discourses	11/10/0002
BE	Natural Language Processing	11/12/2023
	410252(A)Elective V(Computer	
DE	Descines Intelligence	11/10/0002
BE	Business Intelligence	11/12/2023
	410253(C)Elective VI(Computer	
	Engineering)	10/05/2022
IE	Construction Management 301005 c	10/07/2023
	Elective I (Civil Engineering)	
TE	Architecture and Town Planning	11/12/2023
	301015 e Elective II (Civil	
	Engineering)	
TE	Machining Science & Technology	10/07/2023
	302045 Elective I (Mechanical	
	Engineering)	
TE	Composite Materials 302052 Elective	11/12/2023
	II (Mechanical Engineering)	
TE	Advanced Microcontroller and	10/07/2023
	EmbeddedSystem 303145A Elective I	
	(Electrical Engineering)	
TE	Internet of Things and Embedded	10/07/2023
	Systems 310245 Elective I (Computer	
	Engineering)	
TE	Software Modeling and	11/12/2023
	Architectures310254(D) Elective II	
	(Computer Engineering)	



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#### SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERONG & TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF CIVIL ENGINEERING

## Academic Year: 2023-2024 Semester-V <u>Elective Subject offered</u>

#### Class: T.E. Civil

All the Students of TE Civil are hereby informed that they have to give their Elective choice in the prescribed format with the help of following Elective subject list

#### Elective-I 301005

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- 01 Advanced Fluid Mechanics & Hydraulic Machine
- 02 Research Methodogy & IPR
- 03 Construction Management
- 04 Advanced Concrete Technology
- 05 Matrix method of Structural Analysis
- 06 Advanced Mechanics of Structures

Roll No.	Name of Student	Elective I	Student Signature
CE301	Bairagi Rugved Rajendra	Construction Management	Bakagi.RP
CE302	Bhoi Rohan Devanand	Construction Management	Bohange.
CE303	Gaikwad Prajakta Hanmant	Construction Management	P.H.G.
CE304	Kadam Tejas Shamrao	Construction Management	Brejag
CE305	Nigade Piyush Sandip	Construction Management	Frigade
CE306	Pathan Mubin Sharif	Construction Management	Parathan

**Class** Coordinator



Head Of Department

PRINCIPAL

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### SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERONG & TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF CIVIL ENGINEERING

## Academic Year: 2023-2024 Semester-VI Elective Subject offered

Class: T.E. Civil

All the Students of TE Civil are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

## Elective-II 301015e Architecture and Town Planning

- 01 Advanced Engineering Geology with Rock Mechanics
- 02 Soft Computing Techniques
- 03 Advanced Surveying

0

Q

- 04 Advanced Geotechnical Engineering
- 05 Architecture and Town Planning
- 06 Solid Waste Management

Roll No.	Name of Student	Elective II	Student Signature
CE301	BAIRAGI RUGVED RAJENDRA	Architecture and Town Planning	Shairugi
CE302	BHOI ROHAN DEVANAND	Architecture and Town Planning	Bull
CE303	GAIKWAD PRAJAKTA HANMANT	Architecture and Town Planning	P.H.G
CE304	KADAM TEJAS SHAMRAO	Architecture and Town Planning	Brokent
CE305	NIGADE PIYUSII SANDIP	Architecture and Town Planning	Piyresh

**Class** Coordinator



Head Of Department.

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#### SOMESHWAR SHIKSHAN PRASARAK MANDAL's SHARADCHANDRA PAWAR COLLEGE OF ENGINEERONG & TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF CIVIL ENGINEERING

## Academic Year: 2023-2024 Semester-VII <u>Elective Subjects offered</u>

## Class: B.E. Civil

All the Students of BE Civil are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

#### Elective-III 401 003

- 01 Coastal Engineering
- 02 Advanced Design of Concrete Structures
- 03 Integrated Water Resources Planning &
- 04 Management 04 Finite Element Method
- 05 Data Analytics
- 06 Operation Research

#### Elective-IV 401 004

- 01 Air Pollution and Control
- 02 Advanced Design of Steel Structures
- 03 Statistical Analysis and Computational Method
- 04 Airport and Bridge Engineering
- 05 Design of Pre-stressed Concrete Structure
- 06 Formwork and Plumbing Engineering

Roll No.	Name of Student	Elective III	Elective IV	Student Signature
CE401	GADADARE ADESH DADASO	Integrated Water Resources Planning & Management	Airport and Bridge Engineering	Alexh
CE402	GHARGE SANKET SUNIL	Integrated Water Resources Planning & Management	Airport and Bridge Engineering	SSANog
CE403	HANDE SIDDHESH SANJAY	Integrated Water Resources Planning & Management	Airport and Bridge	Sprake
CE404	JADHAV VAIBHAV HANUMANT	Integrated Water Resources Planning & Management	Airport and Bridge	Vialtor
CE405	JAGTAP ADITYA DATTATRAY	Integrated Water Resources Planning & Management	Airport and Bridge	Dagtar
CE406	KALBHOR PRASAD MOHAN	Integrated Water Resources Planning & Management	Airport and Bridge Engineering	tem



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#### SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERONG & TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF CIVIL ENGINEERING

## Academic Year: 2023-2024 Semester-VIII **Elective Subjects offered**

### Class: B.E. Civil

All the Students of BE Civil are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

#### Elective-V 401013

#### Elective-VI 401014

- 01 Earthquake Engineering
- 02 Structural Design of Bridges
- 03 Irrigation and Drainage
  - 04 Design of Precast and Composite Structures
- 05
- Hydropower Engineering 06
  - Structural Audit and Retrofitting of Structures
- 01 TOM and MIS
- 02 Advanced Transportation Engineering
- 03 Geo Synthetic Engineering
- 04 Structural Design of Foundations
- Green Structures and Smart Cities 05
- 06 Rural Water Supply and Sanitation

Roll No.	Name of Student	Elective V	Elective VI	Student
CE401	GADADARE ADESH DADASO	Structural Audit and Retrofitting of Structures	TQM and MIS	frey of
CE402	GHARGE SANKET SUNIL	Structural Audit and Retrofitting of Structures	TQM and MIS	Goarhet
CE403	IIANDE SIDDHESH SANJAY	Structural Audit and Retrofitting of Structures	TQM and MIS	. Sida
CE404	JADHAV VAIBHAV HANUMANT	Structural Audit and Retrofitting of Structures	TQM and MIS	VJ
CE405	JAGTAP ADITYA DATTATRAY	Structural Audit and Retrofitting of Structures	TQM and MIS	falle
CE406	KALBHOR PRASAD MOHAN	Structural Audit and Retrofitting of Structures	TQM and MIS	Stolut -
CE407	KHALATE YASH PRAVIN	Structural Audit and Retrofitting of Structures	TQM and MIS	Yk
CE408	NAGAR PRANAV RAHUL	Structural Audit and · Retrofitting of Structures	TQM and MIS	Pronu
CE409	PAWAR SAGAR SUNIL	Structural Audit and Retrofitting of Structures	TQM and MIS	Power
CE410	CHAVAN SANTOSH SHARAD	Structural Audit and Retrofitting of Structures	TQM and MIS	Sont.
CE411	JAGTAP OMKAR ROHIDAS	Structural Audit and Retrofitting of Structures	TQM and MIS	falle

**Class** Coordinator



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#### SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING, SOMESHWARNAGAR DEPARTMENT OF MECHANICAL ENGINEERING

#### Academic Year: 2023-2024 Semester-VIII <u>Elective Subjects offered</u>

#### Class: B.E. Mechanical

All the Students of BE Mechanical are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

Elec	tive-V 402050		Elective-VI402051
01	Quality and Reliability Engineering	01	Process Equipment Design
02	Energy Audit and Management	02	Renewable Energy Technologies
03	Manufacturing Systems and Simulation	03	Automation and Robotics
04	Engineering Economics and Financial Management	04	Industrial Psychology and Organizational Behavior
05	Organizational Informatics	05	Electrical and Hybrid Vehicle
06	Computational Multi Body Dynamics	06	

Roll No.	Name of Student	Elective V	Elective VI	Student Signature
ME401	Bhapkar Rohan Sanjay	EAM	EHV	Brohm
ME402	Dhumal Aniket Uttam	EAM	EHV	Ahube
ME403	Gadadare Shubhangi Nana	ERM	EHV	Seveldare
ME404	Holkar Yash Dipak	EAM	EHV	ykar
ME405	Jagtap Tejas Baburao	EAM	EMV	Tesas
ME406	Jamdade Amit Dilip	BAM	EHV	fundactor
ME407	Khomane Prasad Sonaba	EAM	EHV	Rhomane
ME408	Mandal Amitkumar Rajkishor	EAM	EHV	Bundt
ME409	Raskar Dnyaneshwar Meghshyam	EAM	EHV	Rangent
ME410	Savant Sagar Umesh	EAM	EHV	S.S.V
ME411	Tekawade Suraj Somanath	EAM	EHV	ST

Class Coorg Knator



Head of Department (Mechanical Engineering)

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## SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING, SOMESHWARNAGAR DEPARTMENT OF MECHANICAL ENGINEERING

### Academic Year: 2023-2024 Semester-VII Elective Subjects offered

#### Class: B.E. Mechanical

All the Students of BE Mechanical are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

Elect	Elective-I 402044		Elective-IV 402045	
01	Automobile Design	01	Product Design and Development	
02	Design of Heat Transfer Equipments	02	Experimental Methods in Thermal Engineering	
03	Modern Machining Processes	03	Additive Manufacturing	
04	Industrial Engineering	04	Operations Research	
05	Internet of Things	05	Augmented Reality and Virtual Reality	
06	Computational Fluid Dynamics	06		

Roll No.	Name of Student	Elective III	Elective IV	Student Signature
ME401	Bhapkar Rohan Sanjay	I.E	AM	Brokan
ME402	Dhumal Aniket Uttam	J.E.	AM	that
ME403	Gadadare Shubhangi Nana	I,E	A.M	Sadadore
ME404	Holkar Yash Dipak	I.E	AM	Dues
ME405	Jagtap Tejas Baburao	I.E	AM	Tejas
JAE406	Jamdade Amit Dilip	TE	AM	Tomola Log of
ME407	Khomane Prasad Sonaba	IE	AM	Paridic
ME408	Mandal Amitkumar Rajkishor	I.E	AM	Fault
ME409	Raskar Dnyaneshwar Meghshyam	I.E	AM	Raman
ME410	Savant Sagar Umesh	T-E	AM	S.s. U
ME411	Tckawade Suraj Somanath	TE	Am	337

Class Coordinator

TE COD



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## SOMESHWAR SHIKSHAN PRASARAK MANDAL's SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING, SOMESHWARNAGAR DEPARTMENT OF MECHANICAL ENGINEERING

## Academic Year: 2022-2023 Semester-VI Elective Subjects offered

#### Class: T.E. Mechanical

All the Students of TE Mechanical are hereby informed that they have to give their Elective choice in the prescribed format with the help of following Elective subject list

	Elective-II 302052	
01	Composite Materials	
02	Surface Engineering	_

Roll No.	Name of Student	Elective II	Student Signature
ME301	Chakor Pratik Pramod	CM	Almer
ME302	Dagade Akshay Popat	CM	Dijode
ME303	Durgade Ketan Shrikrushna	CM	Stinely
ME304	Gunjawate Gauri Sampat	CM	Clungate
ME305	Jagtap Abhishek Dasharath	CM	Rufates
ME306	Jagtap Vaibhav Dilip	CM	Porinimy
ME307	Phaltankar Suyog Aapaso	cm	Augor

Bhayer . **Class Coordinator** 

Head of Jartment (Mechanical Engineering)



24 PRINCIPAL Staradchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pure (Pin : 412 366)

### SOME SHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING, SOMESHWARNAGAR DEPARTMENT OF MECHANICAL ENGINEERING

#### Academic Year: 2022-2024 Semester-V Elective Subjects offered

#### Class: T.F. Mechanical

All the Students of HE Mechanical are hereby informed that they have to give their Elective choice in the prescribed format with the help of following Elective subject list

	Elective-1 302045	
01	Advanced Forming & Joining Processes	
02	Machining Science & Technology	

Roll No.	Name of Student	Elective I	Student Signature
ML301	Chakor Pratik Pramod	MST	Anna
MI:302	Dagade Akshay Popat	MST	Dejade
MI 303	Durgade Ketan Shrikrushna	MST	Auguste
ME304	Gunjawate Gauri Sampat	MST	Gentert
MI 305	Holkar Ajinkee Nanaso	MST	
ME306	Jagtap Abhishek Dasharath	IMST	Battanda
ME307	Jagtap Vaibhav Dilip	MST	Edorous !.
MI:308	Phaltankar Suyog Aapaso	M57.	Bug

Class Coordinator

Head of Department (Mechanical Engineering)

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#### SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING & TECHNOLOGY SOMESHWARNAGAR ELECTRICAL ENGINEERING DEPARTMENT Elective Selection



(A.Y.2023-24)

Class : BE Electrical Engg.

SR.N o.	ROLL NO.	NAME	Elective-I 403143	Elective-II 403144	Student Sign
1	EE- 401	AADKI ABHISHEK YASHWANT	PLCSSCADA	EHV	Jalysis
2	EE - 402	BHANDWALKAR SANKET DHANANJAY	PLC & SCAPA	CHV -	SEL
3	EE- 403	DHASADE PRITEE MOHAN	PLC & SUNDA	EHV	Alale
4	EE - 404	DIKSHA RAJENDRA KINHALE	PLC & SCAPA	EHY	Anhal
5	EE - 405	DHUMAL SHUBHAM JAYANT	PLC&SCADA	EHV	Sher.
6	EE - 406	GAIKWAD RUSHIKESH DASHARATH	PLC 85CADP	EHM	Licition
7	EE - 407	JAGTAP NISHIKANT MADHUKAR	PLCSSCADA	EHV	Project
8	EE - 408	JARAD RUSHIKESH VISHWAS	PLERSCADA	EHU	Jaroo
9	EE - 409	KALBHOR SAKSHI TUKARAM	PLC & SCADA	EHV "	Ralbhor
10	EE - 410	OM SANJAY KUDALE	PLCASLADD	EHV 6	Putale_
11	EE - 411	SANIYA RAVINDRA PILANE	PLC SSCADA	EHN	Filane
12	EE - 412	SHINDE ADITYA UTTAM	PLC & SCADA	EHU	neithe
13	EE - 413	WABALE SANDIP DIPAK	PLC & SCHOP	RHM	purable.
14	EE- 414	WABLE VIDYA SHIVAJI	PLC & SCADA	EHV	Toople
15	EE-415	WAYAL PRATIK RAJENDRA	PLI & SCADA	EHV	Rayal
16	EE-416	DHONE AKASH SURESH	PLC ESCADA	EHV	AND
17	EE-417	PHADKE DNYANESHWAR DASHRATH	PLCS.SCAM	EHV .	obevale
12	EE-418	SASTE SWAPNIL BAPURAO	PLOSSCADA	EHV	802il
	and the second				Carl-rd -
-					

sullev-l HOD Electrical Dept.



PRINCIPAL Staratchardra Pasar Coblege of Engineering & Technology Somethiumager, Tal, Baramak, Dist, Pure (Pin - 412, 266)





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## SOMESHWAR SHIKSHAN PRASARAK MANDAL/S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING & TECHNOLOGY SOMESHWARNAGAR ELECTRICAL ENGINEERING DEPARTMENT **Elective Selection**

(A.Y.2023-24 Sem-II)

Class : BE Electrical Engg.

R.N o.	ROLL NO.	NAME	Elective-III 403150	Elective-IV 403151	Sign
1	EE- 401	AADKI ARHISHEK YASHWANT	50	IE	baidal
2	EE - 402	BHANDWALKAR SANKET DHANANJAY	SQ	IE	Alunte
	EE- 403	DHASADE PRITEE MOHAN	SG	IE	Rabale
	EE - 404	DIKSHA RAJENDRA KINHALE	SG	IE	Noret
T	EE - 405	DHUMAL SHUBHAM JAYANT	SG	IE	Calker
T	EE - 406	GAIKWAD RUSHIKESH DASHARATH	SG	TE	Delikaut
T	EE - 407	JAGTAP NISHIKANT MADHUKAR	SG	IE	- Rushit
1	EE - 408	JARAD RUSHIKESH VISHWAS	SG	IE	Fuhhor
T	EE - 409	KALBHOR SAKSHI TUKARAM	SG	IE	Valate
	EE - 410	OM SANJAY KUDALE	SG	IE	Gilans
T	EE - 411	SANIYA RAVINDRA PILANE	SG	IE	201.1
	EE - 412	SHINDE ADITYA UTTAM	SG	IE	Home
	EE - 413	WABALE SANDIP DIPAK	SG	IE	ture
T	EE- 414	WABLE VIDYA SHIVAJI	SG	IE °	Jan 1010
T	EE-415	WAYAL PRATIK RAJENDRA	SG	IE	and the
	EE- 416	DHONE AKASH SURESH	SG	IE	Jadt
	EE- 417	PHADKE DNYANESHWAR DASHRATH	SG	TE	proc
1	EE- 418	SASTE SWAPNIL BAPURAO	SG	IE	sampnil.

All student note that your Elective-II is smart Grid & Elective IV is Illumination Engg. FDE A.Y. 2028-24 sen -II.

adlare HOD

**Electrical Dept.** 

my PRINCIPAL Shandchandra Pawar College of Engineering & Technology Somenhwamagar, Tal. Baramati, Dist. Pune (Pin: 412 366)

## SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

## NOTICE

# DATE- 071712023

All B.E. (COMPUTER Engineering ) students are hereby informed that to submit Elective given in SPPU syllabus framework as per your choice to class co-coordinator within one week.

After due date Elective will be allotted automatically as per department decision.

**Class** Coordinator

Head of Department (Computer Engineering)

TE COD

PRINCIPAL haradchandra Pawar College of Engineering & Technology nagar, Tal. Baramati, Dist. Pune (Fin 1412 386)

## SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING AND TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

## Academic Year: 2023-24 Semester-VII Elective Subjects offered

## **Class: B.E. COMPUTER**

All the Students of BE Computer are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

Elect	ive-I 410252(E) E	Elective	-II410253(E)
01	410244(A): Pervasive Computing	01	410245(A): Information Retrieval
02	410244(B): Multimedia Techniques	02	410245(B): GPU Programming and Architecture
03	410244(C): Cyber Security and Digital Forensics	03	410245(C): Mobile Computing
04	410244(D): Object oriented Modeling and Design	04	410245 (D): Software Testing and Quality Assurance

Roll No.	Name of Student	COOMP) Elective I Den	CSTGA) Elective II assum	Student Signature
CO401	ADSUL PRASAD PRALHAD	OOM D	STQA	A-hz
CO402	ADSUL YASH DNYANESHWAR	Oomo	STOLA	cesting
CO403	BAILE PRANITA ADHIR	DOMD	STOPA	Real
CO404	BANDAL SAURABH HANUMANT	ODMD	STEA <	Jandert
CO405	BHANDWALKAR RUTIK SANTOSH	OOMO	STQA -	RA-
CO406	BHOSALE AISHWARYA SANJAY	OOMD	STQA	Should
CO407	BUNGE SAKSHI DNYANESHWAR	OOMD	STQA	J.D.Bung
CO408	CHAVAN APEKSHA DILIP	OOMP	STGA	furz
C0409	CHAVAN PUSHPAK MAHADEV	OOND	STQA	P.m. chavan
CO410	DANGE SAMIKSHA SANJAY	oomo	STOA	Sange
CO411	DESHMUKH MEDHAVI SURYAKANT	OOMD	STOA	Rowert
CO412	DHUMAL SNEHAL NAVNATH	amoo	STQA	abreid
CO413	DURGADE AVDHUT MOHAN	00mp	STRA	Aughout
CO414	GADEKAR SHRUTIKA BHANUDAS	00MD	STEA	Bradeba
CO415	GADHAVE SONALI PANDURANG	OOPID	STQA	Sonafi
CO416	GAIKWAD REVATI DIPAK	OOMD	STOR	Rectured
CO417	GAWADE SWAPNALI UTTAM	a moo	STOR	Rel.
CO418	GOLANDE ASHWINI DILIP	OOMD	STOA	Ark





## SOMESHWAR SHIKSHAN PRASARAK MANDAL's SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING AND TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

CO419	GOLE DIKSHA MOHAN	MAMO	CERD	A
CO420	HAJARE TUSHAR KISAN	0000	SIGH	
CO421	HANDE PRATHAMESH SHARAD	00000	STUA	JA-
CO422	JAGTAP APEKSHA NAVNATH	OMD	STOD	CPHannie -
CO423	JAGTAP PRAJAKTA SADANAND	OO.MD	APIC A	Autor P
CO424	JAGTAP PRUTHVIRAJ UDAYSHING		51411	O LO
CO425	KALYANKAR OMKAR AMAR	DOMD	STOA	Prestig
CO426	KAWALE SAGAR DATTATRAYA	OOMD	STOR	atoryonkog
CO427	KEWAT RUTIK SUNIL	OOMD	STQA.	Rawas
CO428	KHARADE KIRAN MACCHINIDEA	DOMD	SIQA	R.S. Kewar
CO429	KHOMANE GALIPAN WILAN	DOMD	STIGA	marcele
CO430	KOLTE VISUAL NAVADDAG	oomp	SIQA	schamer
CO431	KOLTE VISHAL NAYABRAO	OOMD	STGA	Relation
0431	KUMBHAR ROHIT ANIL	0000	STORA	Rowmbhan
CO432	MANE ROHIT MAHADEV	DOMD	STQA	pmans
CO433	MAYURESH SANDIP DURGADE	0000	STQA	Hayy
CO434	MORE SOMESH DNYANESHWAR	10 Concernent	7.)	se ne f
CO435	MORE SUKHADA RAJENDRA	OOMD	STQA	An .
CO436	MUTEKAR HIMMAT BAPURAO	-NEP UOMD	STGA	Marying
CO437	NIGADE ADITYA DNYANESHWAR	OOMD	STQA	noil
CO438	PANSARE VISHAL SANJAY			PUL
CO439	PISAL VAISHNAVI AJIT	ODMD	STOP	wisel
CO440	PUNDE SIDDHI GANESH	OOMD	STOP	and
CO441	RANANAVARE SHRADDHA SUDANRAO	OOMD	STOA	Fore
CO442	RASHIKA RAMESH SUTAR	OOMD	STOR	Patrita
CO443	RENUKA PRAVIN GARUD	OOMD	STQA	Leme
CO444	SANAS DIYA ATUL	DOMD	STOR	P.A.Sano
CO445	SANKPAL REVATI SHANTARAM	OOMD	STOA	PPR
CO346	SHENDAGE NAMRATA RAMESH	OOMD	STOA	999 <del>9</del> -
CO447	SHILIMKAR VAIBHAVI SARJERAO	ODMD	STAR	Faller
CO448	SHINDE AYUSH SHAHAJI			
CO449	SHINDE KAVERI RAJENDRA	OOMD	5760	Adunde:

dry.

## SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING AND TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

CO450	SHINDE KIRAN SATISH	DOWD	STQA	Ou
CO451	SHINDE VISHNUKANT LAXMAN	OOMD	STQ A	Hannut
CO452	SHINDE SUNNY HARISHCHANDRA	OOMD	STOPA	Shipole
CO453	SURVE DIVYA DEVEEDAS	DOMD	STGA	Buen
CO454	SURYAWANSHI MANJIRI Hani mant	OOMD	STQA	(Brijiri
CO455	TAMHANE SHIVANI RAMESH	OOMD	STOPA	S.R. Monthes,
CO456	TAWARE PRASAD SANJAY	DOMD	STQA	P. S. Towar
CO457	TEKAWADE YOGESH UTTAM	COOD	STGA	- Hukindo
CO458	TOMPE ANUJA PRAKASH	DOMD	STOP	Shula-
CO459	VIRAJ VIKRAM KHALATE	DOMD	STQA	2 hours
CO460	WAKASE SAKSHI ASHOK	OOMD	STQA	Abuacan
CO461	HOWAL GITA SANJAY	OOMD	STOA	Stoway
CO462	JAGDALE SWAPNIL SOMNATH			
CO463	JAMDADE VAIBHAV ARVIND		P	
CO464	KAMBALE ABHISHEK SANJAY		1.7	
CO465	MANDLIK OMKAR ANAND			
CO466	SHRADDHA SHAHAЛ GADEKAR			· · · · · ·
CO467	THORAT SNEHAL SANTOSH		( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	

**Class** Coordinator



Head of Department (Computer Engineering)

RINCIPAL Staradchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Fin: 412 366)

## SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

## NOTICE

DATE-05/01/2024

All B.E. (COMPUTER Engineering ) students are hereby informed that to submit Elective given in SPPU syllabus framework as per your choice to class co-coordinator within one week.

After due date Elective will be allotted automatically as per department decision.

**Class** Coordinator

Head of Department (Computer Engineering)

TE COD

RINCIPAL radchandra Pawar College of Engineering & Technology magar, Tal. Baramati, Dist. Pune (Fin : 412 386)

#### SOMESHWAR SHIKSHAN PRASARAK MANDAL's SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING AND TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

### Academic Year: 2023-24 Semester-VIII Elective Subjects offered

#### **Class: B.E. COMPUTER**

All the Students of BE Computer are hereby informed that they have to give their Elective choice in the Prescribed format with the help of following Elective subject list

Elec	tive-III 410252(E)	Elective -IV410253(E)					
01	410252(A): Natural Language Processing	01	410253(A): Pattern Recognition				
02	410252 (B): Image Processing	02	410253( B): Soft Computing				
03	410252(C): Software Defined Networks	03	410253(C): Business Intelligence				
04	410252(D): Advanced Digital Signal Processing	04	410253(D): Quantum Computing				

Roll No.	Name of Student	Elective III CNL	P) Elective IV BI	Student Signature
CO401	ADSUL PRASAD PRALHAD	NLP	BJ	Ady
CO402	ADSUL YASH DNYANESHWAR	NLP	BI	ph. m-
CO403	BAILE PRANITA ADHIR	NLP	BI	Bail
CO404	BANDAL SAURABH HANUMANT	NLP	BIV	Duckett
CO405	BHANDWALKAR RUTIK SANTOSH	NLP	BI	RAB
CO406	BHOSALE AISHWARYA SANJAY	NLP	BI	tosale
CO407	BUNGE SAKSHI DNYANESHWAR	NLP	BI	S. D.B. Ling
CO408	CHAVAN APEKSHA DILIP	NLP	BI	Auto
0409	CHAVAN PUSHPAK MAHADEV	NLP	BI	P.m.chavan
CO410	DANGE SAMIKSHA SANJAY	NLP	BT	Sange.
CO411	DESHMUKH MEDHAVI SURYAKANT	NLP	BI	Tampell.
CO412	DHUMAL SNEHAL NAVNATH	NLP	BI	OBSIL
CO413	DURGADE AVDHUT MOHAN	NLP	BL	Pughut
CO414	GADEKAR SHRUTIKA BHANUDAS	NLP	BT	Eyadeka
CO415	GADHAVE SONALI PANDURANG	M2P	81	Sonal
CO416	GAIKWAD REVATI DIPAK	NLP	BI	Bund
CO417	GAWADE SWAPNALI UTTAM	NLP	BI	Set.
CO418	GOLANDE ASHWINI DILIP	NLP	β <del>3</del>	RHC

## SOMESHWAR SHIKSHAN PRASARAK MANDAL'S SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING AND TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

CO419	GOLE DIKSHA MOHAN	MIP	BI	9
CO420	HAJARE TUSHAR KISAN	NLP	DT	the
CO421	HANDE PRATHAMESH SHARAD	NLP	ØI	Phante
CO422	JAGTAP APEKSHA NAVNATII	NLP	BL	Jagtup
CO423	JAGTAP PRAJAKTA SADANAND	NLP	BI	Plagatep
CO424	JAGTAP PRUTHVIRAJ UDAYSHING	NLP	BI	Doylip
CO425	KALYANKAR OMKAR AMAR	NLP	BI	Otsyphan
CO426	KAWALE SAGAR DATTATRAYA	NLP	BI	Rawall
CO427	KEWAT RUTIK SUNIL	NLP	BI	R.S. Kewel
CO428	KHARADE KIRAN MACCHINDRA	NLP	BI	sharaded
CO429	KHOMANE GAURAV VIJAY	NLP	BI	chement
CO430	KOLTE VISHAL NAYABRAO	NLP	BIL	Pullete
CO431	KUMBHAR ROHIT ANIL	HLP	Br	Bruncho
CO432	MANE ROHIT MAHADEV	HPLP	BI	progang
CO433	MAYURESH SANDIP DURGADE	NLP	BI	Hayy
CO434	MORE SOMESH DNYANESHWAR	NLP	BÌ	AMP
CO435	MORE SUKHADA RAJENDRA	NLP	BI	(Am)
CO436	MUTEKAR HIMMAT BAPURAO	NLP	BI	Mittimuat
CO437	NIGADE ADITYA DNYANESHWAR	NLP	BĨ	the
CO438	PANSARE VISHAL SANJAY	NLP	BI	X.
CO439	PISAL VAISHNAVI AJIT	HLP	BI	House
CO440	PUNDE SIDDHI GANESH	HLP	BI	Grunde
CO441	RANANAVARE SHRADDHA SUDANRAO	NLP	BI	Fin
CO442	RASHIKA RAMESH SUTAR	NLP	BI	Buta
CO443	RENUKA PRAVIN GARUD	NLP	BI	- Enous
CO444	SANAS DIYA ATUL	NLP	BI	DAS
CO445	SANKPAL REVATI SHANTARAM	NLP	BI	Reinty
CO346	SHENDAGE NAMRATA RAMESH	NLP	BI	Frendage
CO447	SHILIMKAR VAIBHAVI SARJERAO	TILP	BJ	Vay
CO448	SHINDE AYUSH SHAHAJI	NLP	BI	Strang

## SOMESHWAR SHIKSHAN PRASARAK MANDAL's SHARADCHANDRA PAWAR COLLEGE OF ENGINEERING AND TECHNOLOGY, SOMESHWARNAGAR DEPARTMENT OF COMPUTER ENGINEERING

0449	SHINDE KAVERI RAJENDRA	NLP	\$L	Alusk
CO450	SHINDE KIRAN SATISH	NLP	BF	Bunt
CO451	SHINDE VISHNUKANT LAXMAN	NLP	BI	Honnut -
CO452	SHINDE SUNNY HARISHCHANDRA	NLP	BI	Thinde
CO453	SURVE DIVYA DEVEEDAS	NLP	BI	Buen
CO454	SURYAWANSHI MANJIRI HANUMANT	NLP	BT	(Briln
CO455	TAMHANE SHIVANI RAMESH	NLP	BL	Shiren
CO456	TAWARE PRASAD SANJAY	NLP	BI	P.S. Tawatt
CO457	TEKAWADE YOGESH UTTAM	NLP	BI	Jahunde
CO458	TOMPE ANUJA PRAKASH	NILP	BI	Anija
CO459	VIRAJ VIKRAM KHALATE	NLP	BI	Vince
CO460	WAKASE SAKSHI ASHOK	NLP	BÎ	Qualcase
CO461	HOWAL GITA SANJAY	NLP	BI	Stowa
CO462	JAGDALE SWAPNIL SOMNATH			
CO463	JAMDADE VAIBHAV ARVIND	in a guiri	- 1	
CO464	KAMBALE ABHISHEK SANJAY	ind in the	E.	
CO465	MANDLIK OMKAR ANAND	- ( )		n Maarer
CO466	SHRADDHA SHAHAJI GADEKAR	4		
CO467	THORAT SNEHAL SANTOSH			e



Head of Department (Computer Engineering)

PRINCIPAL Staradchandra Pawar College of Engineering & Technology meshwamagar Tal Baramati, Dist. Pune (Pin: 412 386)



## Shri Someshwar Shikshan Prasarak Mandal's Sharadchandra Pawar College of Engineering & Technology, Someshwarnagar Tal – Baramati, Dist – Pune 412 306 (Approved by AICTE New Delhi, Recognized by Govt. of Maharashtra & Affiliated to Savitribai Phule Pune University, Id.no.PU/PN.Engg./445/2012) +91-2112-283185 \* Fax : (02112) 283185 Web :www.secsomeshwar.ac.in \*Email:sspm1972@gmail.com

To,

The Coordinator,

NAAC, Bangalore.

Subject- Implementation of CBCS / Elective to UG.

Reference - 1.2.1 Percentage of programs in which choice Based Credit System (CBCS/ Elective course system has been implemented.

Dear Sir/Madam,

As per the directives from Savitribai Phule Pune University (SPPU), Pune, the elective has been implemented at institute as mentioned in the table below. The circulars from SPPU are enclosed herewith.

Program Name	Year of implementation of CBCS/Elective course system						
BE Civil Engineering							
BE Mechanical Engineering	PE 2010 Dettorn Course (Academic Veer 2022 22)						
BE Computer Engineering	BE 2019 Pattern Course (Academic Tear 2022-25)						
BE Electrical Engineering							



PRINCIPAL Sharadchandra Pawar College of Engineering & Technology Someshwarnagar, Tal. Baramati, Dist. Pune (Pin : 412 386)



	Savitribai Phule Pune University, Pune BE (Civil Engineering) 2019 Pattern															
	(With effect from Academic Year 2022-23)															
	1			SEN	IEST	ER:	VII				-					
Course Code	Course Name	Т § (Но	Teaching Scheme (Hours/Week)			Examination Scheme and Marks						C	<mark>redi</mark> t			
		Theory	Practical	Tutorial	IN-Sem	End-Sem	ΤW	PR	OR	Total	HL	ΤW	PR	OR	TUT	Total
401001	Foundation Engineering	03			30	70				100	03					03
401002	Transportation Engineering	03			30	70				100	03					03
401003	Elective III	03			30	70				100	03					03
401004	Elective IV	03			30	70				100	03					03
401005	Project Stage I		04				50		50	100		01		02		03
401006	Transportation Engineering Lab		02						50	50				01		01
401007	Elective III Lab		02						50	50				01		01
401008	Elective IV Lab		02				50			50		01				01
401009	Computer Programming in Civil Engineering	01	02				50			50		02				02
401010	Audit Course I Stress Management by Yoga / Communication Etiquette in Workplaces			01		GR				GR						
	Total	13	12	01	120	280	150		150	700	12	04		04		20
Abbrevia	tions: TH : Theory, TW: Term	n Wo	rk, Pl	R : Pr	actic	al, O	R: O	ral, T	UT :	Tutori	ial, G	R: G	rade	1		

## **Elective III and IV**

S N	Course	Elective III: Course Name	Course	Elective IV: Course Name
	Code		Code	
01	401003 a	Coastal Engineering	401004 a	Air Pollution and Control
02	401003 b	Advanced Design of Concrete Structures	401004 b	Advanced Design of Steel Structures
03	401003 c	Integrated Water Resources Planning & Management	401004 c	Statistical Analysis and Computational Method
04	401003 d	Finite Element Method	<mark>401004 d</mark>	Airport and Bridge Engineering
05	401003 e	Data Analytics	401004 e	Design of Prestressed Concrete Structures
06	401003 f	Operation Research	401004 f	Formwork and Plumbing Engineering



allen PRINCIPAL Sturadchandra Pawar College of Engineering & Technology Someshwamagar, Tall Baramati, Dist, Pune (Pin : 412 386)

					SF	EMES	STER	-VII	I							
Course Code	Course Name	To S (Hou	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit					
		Theory	Practical	Tutorial	IN-Sem	End-Sem	WT	PR	OR	Total	HT	ΜL	PR	OR	TUT	Total
401011	Dams and Hydraulics Structures	03			30	70				100	03					03
401012	Quantity Surveying, Contracts and Tenders	03			30	70				100	03					03
401013	Elective V	03			30	70				100	03					03
401014	Elective VI	03			30	70				100	03					03
401015	Project Stage II		10				100		50	150		03		02		05
401016	Dams and Hydraulics Structures Lab		02						50	50				01		01
401017	Quantity Surveying, Contracts and Tenders Lab		02						50	50				01		01
401018	Elective V Lab		02				50			50		01				01
401019	Audit Course II Social Responsibility / Human Rights			01		GR				GR						
	Total	12	16	01	120	280	150		150	700	12	04		04		20
<b>Abbrev</b>	iations: TH : Theory, TW: Te	erm W	ork,	PR:	Pract	tical,	OR:	Oral	and	TUT :	Tuto	rial, (	GR: (	Grade	) 2	<u> </u>

## Elective V and VI

S N	Course	Elective V: Course Name	Course	Elective VI: Course Name
	Code		Code	
01	401013 a	Earthquake Engineering	<mark>401014 a</mark>	TQM and MIS
02	401013 b	Structural Design of Bridges	401014 b	Advanced Transportation Engineering
03	401013 c	Irrigation and Drainage	401014 c	Geo Synthetic Engineering
04	401013 d	Design of Precast and Composite Structures	401014 d	Structural Design of Foundations
05	401013 e	Hydropower Engineering	401014 e	Green Structures and Smart Cities
06	<mark>401013 f</mark>	Structural Audit and Retrofitting of Structures	401014 f	Rural Water Supply and Sanitation



leve. RN Standchandra Pawar College of Engineering & Technology Someshwarnagar, Tall Baramati, Dist. Pune (Pin : 412 386)



## Savitribai Phule Pune University

## **Board of Studies - Mechanical and Automobile Engineering**

Undergraduate Program – Final Year Mechanical Engineering (2019 pattern)

Course Course Name		Teaching Scheme (Hrs./week)			Examination Scheme and Marks							Credit			
Code			PR	TUT	ISE	ESE	ΤW	PR	OR	TOTAL	ΗT	PR	TUT	TOTAL	
	Semest	ter-`	VII												
<u>402041</u>	Heating Ventilation Air-Conditioning and Refrigeration	3	2	-	30	70	-	-	25	125	3	1	-	4	
402042	Dynamics of Machinery	3	2	-	30	70	-	-	25	125	3	1	-	4	
<u>402043</u>	Turbomachinery*	2	2	-	-	50	25	-	25	100	2	1	-	3	
<u>402044</u>	Elective – III	3	-	-	30	70	-	-	-	100	3	-	-	3	
<u>402045</u>	Elective - IV	3	-	-	30	70	-	-	-	100	3	-	-	3	
<u>402046</u>	Data Analytics Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	1	
<u>402047</u>	Project (Stage - I)	-	4	-	-	-	50	-	50	100	-	2	-	2	
<u>402054</u>	Audit Course VII <sup>®</sup>	-	-	-	-	-	- 105	-	-	-	-	6	NC	20	
	10tai	14	12	-	120	330	125	-	125	700	14	0	-	20	
402040	Semest	er-v			20	70	25	1	25	150	2	1		4	
<u>402048</u> 402040	Energy Engineering	3	2	-	30	70	25	-	25	150	3	1	-	4	
402049	Elective - V	3	2	-	30	70	23	-	23	100	3	1	-	3	
402050	Elective - VI	3	-	-	30	70	-	-	-	100	3	-	-	3	
402052	Mechanical Systems Analysis Laboratory	-	2	-	-	-	25	-	25	50	-	1	-	1	
402053	Project (Stage - II)	-	10	-	-	-	100	-	50	150	-	5	-	5	
402055	Audit Course VIII <sup>\$</sup>	-	-	-	-	-	-	-	-	-		N	С		
		12	16	-	120	280	175	-	125	70 <mark>0</mark>	12	8	-	20	
	Elective-III						Elec	tive	-V						
402044A	Automobile Design	<b>40</b> 2	<b>2050</b> A	Σ I	Qualit	y and	Reliat	oility	Engin	eering					
402044B	Design of Heat Transfer Equipments	<mark>402</mark>	2050I	3	Energ	y Aud	it and	Man	ageme	ent					
402044C	Modern Machining Processes	402	20500	2 1	Manuf	acturi	ing Sy	stems	and S	Simula	tion				
402044D	Industrial Engineering	402	20501	2	Engine	eering	Econ	omics	and I	Financ	ial N	lanag	geme	nt	
402044E	Internet of Things	<b>40</b> 2	20501	<u>.</u>	Organ	izatio	nal Inf	orma	tics						
402044F	Computational Fluid Dynamics	<u>40</u> 2	20501	2	Comp	utatio	nal Mı	ılti Bo	ody D	ynami	cs				
	Elective-IV					]	Elect	ive-	VI						
402045A	Product Design and Development	<u>40</u>	<u>2051</u>	A I	Proces	s Equ	ipmen	t Des	ign						
402045B	Experimental Methods in Thermal Engineering	40	2051	<u>B</u> 1	Renew	able	Energy	/ Tecl	nnolog	gies					
402045C	Additive Manufacturing	<u>40</u>	2051	<u>C</u> .	Auton	nation	and F	Robot	ics						
402045D	Operations Research	<u>40</u>	2051	<b>D</b> 1	Indust	rial P	sychol	ogy a	nd Or	ganiza	tiona	ıl Be	havio	or	
402045E	Augmented Reality and Virtual Reality	<u>40</u>	<u>2051</u>	<u>E</u> (	Electri	cal ar	nd Hyb	rid V	ehicle	<u>e</u>					

Audit Courses									
402054A	Yoga Practices	402054B	Stress Management						
402055A	Managing Innovation	402055B	Operations Management						

Abbreviations: TH: Theory, PR: Practical, TUT: Tutorial, ISE: In-Semester Exam, ESE: End-Semester Exam, TW: Term Work, OR: Oral

• Student can select any elective subjects from the list given as per his/her choice. However, it is advised to select the subjects from within a group identified for specialization.



PRINCIPAL Sturdchandra Panar College of Engineering & Technology Someshnamagar, Tall Baramak, Dist, Pune (Fin : 412 366)

# SAVITRIBAI PHULE PUNE UNIVERISTY, PUNE



# **Faculty of Science and Technology**

# Board of Studies Electrical Engineering

Syllabus Final Year Electrical Engineering (2019 Course) (w.e.f. 2022-2023)



PRINCIP

Shuradchandra Pawar Gollege of Englineering & Technology Someshwarnagar, Tall Baramati, Dist. Pune (Pin : 412:386)

		ł	BE	Ele	ectri	ical (	(201	9 Co	urs	e)						
						SEN	/I-I									
Course Code	Course Name	Tea	chinş	g Sch	eme		Exa	minatio	on Sch	ieme				Cre	dit	
		Th	Pr	Tu	PW	ISE	ESE	TW	PR	OR	Total	Th	Pr	Tu	PW	Total
403141	Power System Operation & Control	3	2	_	Ι	30	70	25	-	25	150	3	1	_		4
403142	Advanced Control System	3	2	_	Ι	30	70	_	_	50	150	3	1	_	Ι	4
403143	Elective-I	3	2	_		30	70	_	_	25	125	3	1	_	I	4
403144	Elective-II	3	-	2*	-	30	70	25	—	_	125	3	_	1	-	4
403145	Project Stage-I	-	-	_	4	-	_	50	—	50	100	_	_	_	2	2
403146	MOOCs	-	-	_	_	-	_	50	_	_	50	_	_	_	2	2
403147	Audit Course-VII	2#	_	_	_	-	_	_	_	_	_	_	_	_	_	-
	Total	12	6	2	4	120	280	150	-	150	700	12	3	1	4	20
	403143: Elective-I					<mark>4031</mark> 4	44: Ele	ctive-Il	[		4	03147	: Au	dit C	ourse-	VII
403143A: 403143B: 403143C: 403143D:	03143A: PLC and SCADA 03143B: Power Quality Management 03143C: High Voltage Engineering 03143D: Robotics and Automation				144A <mark>144B</mark> 144C 144D:	: Altern : Electr : Specia : HVD	nate En <mark>fical &amp; 1</mark> al-purp C & FA	ergy Sy Hybrid ose Mae ACTS	stem Vehic chines	le)	40314 40314 40314	47 A: 47B: 1 47C: \$	Germ Engin Sustai	an La eering nabili	anguag g Ecor ity(IG	ge I nomics I BC)
						SEM	I-II									
Course	Course Name	Tea	chinş	g Sch	eme		Exa	minatio	on Sch	ieme				Cre	dit	
Code		Th	Pr	Tu	PW	ISE	ESE	TW	PR	OR	Total	Th	Pr	Tu	PW	Total
403148	Switchgear and Protection	3	2	_	_	30	70	25	_	50	175	3	1	_	_	4
403149	Advanced Electrical Drives & Control	3	2	_	-	30	70	25	50	_	175	3	1	-	-	4
403150	Elective-III	3	-	_	_	30	70	-	—	_	100	3	_	-	_	3
403151	Elective-IV	3	-	_	_	30	70	-	—	_	100	3	_	_	_	3
403152	Project stage II	_	-	_	12	-	_	100	—	50	150	_	_	_	6	6
403153	Audit course VIII	2#	-	_	_	-	_	-	—	_	_	_	_	_	_	_
	Total	4	_	12	120	280	150	50	100	700	12	2	_	6	20	
	403150: Elective-III	<u> </u>	<b>!</b>			40315	51: Eleo	ctive-IV	/	ļ	40	)3153	: Auc	lit Co	ourse-	VIII
403150 A 403150 B 403 150 C 403150 D:	403150 A : Digital Control System 403150 B : Restructuring and Deregulation 403 150 C: Smart Grid 403150 D: SensorTechnology (Open Elective)403151A: EHV AC Transmission 403151B : Illumination Engineering 403151C: Electromagnetic Fields 403151D: AI and ML (Open Elective)403153A: German Language II 403153B: Engineering Economics II 403153C: Green Building															
* For the	ntorial, one credit is giv	en. # A	Audit	Cou	rse: C	Conduct	t over a	and abo	ove th	ese lec	tures.	MA	-	Jul .		



# Faculty of Engineering Savitribai Phule Pune University, Pune

# Maharashtra, India



# Curriculum for Fourth Year of Computer Engineering (2019 Course) (With effect from 2022-23)



## **BE Computer Engineering 2019 Course tentative Curriculum structure:**

			Savitribai Phule Pune University Fourth Year of Computer Engineering (2019 Course) (With effect from Academic Year 2022-23)													
Semester VII																
Course Code	Course Name	Te S (Ho	eachin chem urs/w	ng ne eek)	Exa	aminati	on Sche	eme an	d Ma	arks	Cı	edit	Scher	ne		
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral\Pre	Total	Lecture	Practical	Tutorial	Total		
410241	Design and Analysis of Algorithms	03	-	-	30	70	-	-	-	100	3	-	-	3		
410242	Machine Learning	03	-	70	-	-	-	100	3	-	-	3				
410243	Blockchain Technology	03	-	-	30	70	-	-	-	100	3	-	-	3		
410244	Elective III	30	70	-	-	-	100	3	-	-	3					
410245	Elective IV	03	-	-	30	70	-	-	-	100	3	-	-	3		
410246	Laboratory Practice III	-	04	-	-	-	50	50	-	100	-	2	-	2		
410247	Laboratory Practice IV	-	02	-	-	-	50	-	-	50	-	1	-	1		
410248	Project Stage I	-	02	-	-	-	50	-	-	50	-	2	-	2		
								To	otal (	Credit	15	05	-	20		
	Total	15	08	-	150	350	150	50	-	700	15	05	-	20		
410249	Audit Course 7											Gr	ade			
Elective <u>410244(A</u> <u>410244(B</u> <u>410244(C</u>	<ul> <li>Pervasive Computing</li> <li>A) Pervasive Computing</li> <li>B) Multimedia Technique</li> <li>C) Cyber Security and Discussion</li> </ul>	es igital	Fore	ensic	<u>4</u> <u>4</u> <u>4</u>	lective 10245(2 10245(1 10245(1	A) Info B) GPU C) Mob	<u>rmatic</u> J Prog ile Cor	on Ro grami mput	etrieva ming a ing	<u>1</u> nd A	rchit	tectur	<u>re</u>		
<u>410244(L</u> 410244(l	D) Object Oriented Mode E) Digital Signal Proces	<u>sing</u>	and	Des1	<u>gn</u> 4 <u>A</u> 4	<u>10245(1</u> .ssuran 10245(	<u>D)Soft</u> <u>ce</u> E) Cor	<u>ware</u> npilers	<u>16</u>	sting	<u>ar</u>	<u>ia</u>	Qua	<u>.nty</u>		
Laborator Laborator 410243	pry Practice III: ry assignments Courses- 4	1024	1, 410	0242,	L L	<mark>aborat</mark> aborato	ory Pra ory assig	actice gnmen	<mark>IV:</mark> ts Co	urses- 4	41024	14, 4	10245	5		
Audit Co AC7- I M AC7- II E AC7- III AC7- IV AC7- V I	Durse 7(AC7) Options: 10OC- Learn New Skills Entrepreneurship Developr Botnet of Things 3D Printing Industrial Safety and Envir	<u>nent</u> onme	ent C	onsci	ousness	<u>5</u>	-) f	RINCIPAL	Jen .	J.						

Syllabus for Fourth Year of Computer Engineering

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#6/128

	Savitribai Phule Pune University Final Year of Computer Engineering (2019 Course) (With effect from Academic Year 2022-23) Somoster VIII													
				Sem	lester	VIII								
Course Code	Course Name	Te S (Ho	eachin chem urs/w	ng ne eek)	Exa	aminati	on Sche	eme an	d Ma	rks	Cı	edit S	Scher	ne
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral/Pre	Total	Lecture	Practical	Tutorial	Total
410250	High Performance Computing	03	-	-	30	70	-	-	-	100	03			03
410251	Deep Learning	03	-	-	30	70	-	-	-	100	03			03
410252	Elective V	03	-	-	30	70	-	-	-	100	03			03
410253	Elective VI	03	-	-	30	70	-	-	-	100	03			03
410254	Laboratory Practice V	-	02	-	-	-	50	50	-	100		01		01
410255	Laboratory Practice VI	-	02	-	-	-	50	-	-	50		01		01
410256	Project Stage II	-	06	-	-	-	100	-	50	150		06		06
							1	Τ	otal C	Credit	12	08	-	20
	<u>Total</u>	12	10	-	120	280	200	50	50	700	12	08	-	20
410257	Audit Course 8											Gr	ade	
Elective 410252(1 410252(1 410252(1 410252(1 410252(1 410252(1	Natural Language Pro         3) Image Processing         C) Software Defined Network         D) Advanced Digital Signed         E) Open Elective I	orks nal P	ing Troces	ssing		lective 10253(1 10253(1 10253(1 10253(1 10253(1	VI A) Patte B) Soft C) Busi D) Quar E) Oper	ern Rec Comp ness Ir ntum C n Elect	cogni uting ntellig Comp ive II	tion gence uting				
Lab Pra Laborato	ctice V: ry assignments Courses- 4	1025	0, 410	0251	L L	<mark>ab Pra</mark> aborato	<mark>ctice V</mark> ry assig	<mark>I:</mark> gnmen	ts Co	urses- 4	41025	52, 41	0253	}
Audit ( <u>AC8-1</u> <u>AC8-11</u> <u>AC8-11</u>	Course 8(AC8) Options: Usability Engineering Conversational Interfaces I Social Media and Analyt	ics												

AC8- IV MOOC- Learn New Skills

AC8- V Emotional Intelligence



PRINCIPAL Sturactandra Panar College of Entimeering & Technolog

Shundchandra Pawar College of Engineering & Technology Someshwarnagar, Tall Baramati, Dist. Pune (Pin: : 412 386)

	Savitribai Phule Pune University, Pune TE (Civil Engineering) 2019 Pattern (With effect from Academic Year 2021-22)															
	`			SEM	IEST	ER:	V			·						
Course Code	Course Name	T S (Ho	eachi Schen urs/W	ng 1e /eek)	Exa Mai	mina rks	ation	Sche	eme a	and			С	redit	t	
		Theory	Practical	Tutorial	IN-Sem	End-Sem	ML	PR	OR	Total	HT	TW	PR	OR	TUT	Total
301001	Hydrology and Water Resources Engineering	03			30	70				100	03					03
301002	Water Supply Engineering	03			30	70				100	03					03
301003	Design of Steel Structures	03			30	70				100	03					03
301004	Engineering Economics and Financial Management	03			30	70				100	03					03
301005	Elective I	03			30	70				100	03					03
301006	Seminar			01		-	50			50					01	01
301007	Hydrology and Water Resources Engineering Lab		02				25			25		01				01
301008	Water Supply Engineering Lab		02					50		50			01			01
301009	Design of Steel Structures Lab		04						50	50				02		02
301010	Elective I Lab		02				25			25		01				01
301011	Audit Course I: Professional Ethics and Etiquettes/ Sustainable Energy Systems			01		GR				GR						
	Total	15	10	02	150	350	100	50	50	700	15	02	01	02	01	21
Abbrevia	tions: TH : Theory, TW: Tern	n Wo	rk, P	R : Pr	actio	al, C	)R: (	)ral,	TUT	: Tute	orial,	GR:	Gra	de		

## **Elective I: 301005**

S N	Course Code	Course Name
01	301005 a	Advanced Fluid Mechanics and Hydraulic Machines
02	301005 b	Research Methodology and IPR
03	<mark>301005 с</mark>	Construction Management
04	301005 d	Advanced Concrete Technology
05	301005 e	Matrix Methods of Structural Analysis
06	301005 f	Advanced Mechanics of Structures



11 PRINCIPAL Starachterdra Pawar College of Engineering & Technology Someshnamager, Tal. Baramati, Dist. Pume (Pin - 412 366)

					S	EME	STEI	R-VI	[							
Course Code	Course Name	Te S (Hou	eachin chem urs/W	ng e 'eek)	F	xami	inatio M	on So Iark	cheme s	and			Cr	edit		
		Theory	Practical	Tutorial	IN-Sem	End-Sem	ΤW	PR	OR	Total	ΗT	ΜL	PR	OR	TUT	Total
301012	Waste Water Engineering	03			30	70				100	03					03
301013	Design of RC Structures	03			30	70				100	03					03
301014	Remote Sensing and GIS	03			30	70				100	03					03
301015	Elective II	03			30	70				100	03					03
301016	Internship						100			100		04				04
301017	Waste Water Engineering Lab		02						50	50				01		01
301018	Design of RC Structures Lab		04						50	50				02		02
301019	Remote Sensing and GIS Lab		02				50			50		01				01
301020	Elective II Lab		02				50			50		01				01
301021	Audit Course II: Leadership and Personality Development/ Industrial Safety			01		GR				GR						
	Total	12	10	01	120	280	200		100	700	12	06		03		21
Abbrevi	ations: TH : Theory, TW: Te	rm W	ork,	PR :	Pract	ical, (	OR: (	<mark>Oral</mark>	and [	ГUТ :	Tutor	ial,	GR:	Grad	le	

## Elective II: 301015

S N	Course Code	Course Name
01	301015 a	Advanced Engineering Geology with Rock Mechanics
02	301015 b	Soft Computing Techniques
03	301015 c	Advanced Surveying
04	301015 d	Advanced Geotechnical Engineering
05	<mark>301015 e</mark>	Architecture and Town Planning
06	301015 f	Solid Waste Management



Qu. PRINCIPAL Starachandra Pasar College of Engineering & Technology Sonenhuanagar, Tak Baramak, Disk Pune (Pin - 412 266)

## Savitribai Phule Pune University Board of Studies - Automobile and Mechanical Engineering **Undergraduate Program - Mechanical Engineering (2019 pattern)**

Course		Course Name	Te So (Hr	ach chei s./w	ing ne eek)	Ex	kami a	inati nd N	on S Marl	Sche ks	eme		Cre	edit	
Code		Course Manie	ΗT	PR	TUT	ISE	ESE	ΤW	PR	OR	Total	ΤH	PR	TUT	Total
	-	Semest	ter-`	V	-				-		-				
<u>302041</u>	Nume	erical & Statistical Methods	3	-	1	30	70	25	-	-	125	3	-	1	4
<u>302042</u>	Heat	& Mass Transfer	3	2	-	30	70	-	50	-	150	3	1	-	4
<u>302043</u>	Desig	n of Machine Elements	3	2	-	30	70	-	-	25	125	3	1	-	4
<u>302044</u>	Mech	atronics	3	2	-	30	70	-	-	25	125	3	1	-	4
<u>302045</u>	Electi	ive I	3	I	-	30	70	-	-	I	100	3	I	Ι	3
<u>302046</u>	Digit	al Manufacturing Laboratory	-	2	1	-	-	50	-	-	50	-	1	I	1
302047	Skill	Development	-	2	-	-	-	25	-	-	25	-	1	١	1
302048	Audit	$z \text{ course - } V^{\$}$	-	-	-	-	-	-	-	-	-	-	-	١	-
		Total	15	10	1	150	350	100	50	50	700	15	5	1	21
	-	Semest	er-V	/Ι	-				-		-				
<u>302049</u>	Artifi	cial Intelligence & Machine Learning	3	2	-	30	70	-	-	25	125	3	1	-	4
<u>302050</u>	Comp	outer Aided Engineering	3	2	-	30	70	-	50	-	150	3	1	-	4
302051	Desig	n of Transmission Systems	3	2	-	30	70	-	-	25	125	3	1	-	4
302052	Electi	ive II	3	-	-	30	70	-	-	-	100	3	-	-	3
302053	Meas	urement Laboratory	-	2	I	-	-	50	1	I	50	-	1	Ι	1
302054	Fluid	Power &Control Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	1
302055	Interr	nship/Mini project *	-	4	I	-	-	100	1	I	100	-	4	Ι	4
302056	Audit	t course - VI <sup>\$</sup>	-	I	-	-	-	-	-	I	-	-	I	1	-
		Total	12	14	-	120	280	200	50	50	700	12	9	-	21
		Elective-I						El	lecti	ve-I	I				
<u>302045</u>	- <u>A</u>	Advanced Forming & Joining Proces	ses	<u>3(</u>	)205	<mark>2-A</mark>	(	Comp	posit	te M	ateri	<mark>als</mark>			
<u>302045</u>	<u>-B</u>	Machining Science & Technology		30	)205	52-B	S	Surfa	ce E	ngiı	neeri	ng			
Abbrev Semest	viation er Exa	ns: TH: Theory, PR: Practical, TUT m, TW: Term Work, OR: Oral	: Т	utoi	rial,	ISF	2: In	-Sen	neste	er E	xam,	, E\$	SE:	En	d-
Note: I	nteres	ted students of TE (Automobile Engi	neer	ing	and	Me	cha	nical	Eng	vine	ering	) ca	n o	nt f	or
any on	e of t	he audit course from the list of aud	lit c			nrec	cribe	ed b	v R	05	(Δ11t	omo	hil	рт - е ан	nd
Mechar	nical E	Engineering)		our		pres	CIIU	u U	уЪ	05	(Mut	UIIK	5011	c a	liu
Instruc	ctions														
• Pra	ctical/	Tutorial must be conducted in FOUR 1	oatc	hes	per (	divi	sion	onlv	<b>.</b>						
• Mir	nimum	number of Experiments/Assignments	inl	PR/	Tuto	orial	shal	1 be	carr	ied a	out a	s m	ent	ion	ed
in t	he svl	<b>labi</b> of respective courses.					2.104					~			

- Assessment of tutorial work has to be carried out similar to term-work. The Grade cum marks for Tutorial and Term-work shall be awarded on the basis of continuous evaluation.
- <sup>\$</sup>Audit course is mandatory but non-credit course. Examination has to be conducted at the end of Semesters for award of grade at institute level. Grade awarded for audit course shall not be calculated for grade point & CGPA.



		Sa	avitı	riba	i Phu	le Pu	ıne U	J <b>nive</b>	ersit	<b>y, P</b>	une					
	Syllabus: 7	Гhir	d Y	ear	(TE)	Elec	etrica	l En	gine	erir	ng (20	19 (	cou	rse)		
					(W	v.e.f 2	2021-	-22)								
					SI	EME	STE	R-I								
Course	Course	Те	achin	ig Sch	eme		Exan	ninatio	n Sch	eme				Cre	dit	
code	Name	Th	Pr	Tu	SEM /PW /IN	ISE	ESE	TW	PR	OR	Total	Th	Pr	Tu	SEM /PW /IN	Total
303141	Industrial and Technology Management	3	0	0	0	30	70	0	0	0	100	3	0	0	0	3
303142	Power Electronics	3	4#	0	0	30	70	0	50	0	150	3	2	0	0	5
303143	<u>Electrical</u> Machines-II	3	2	0	0	30	70	25	25	0	150	3	1	0	0	4
303144	Electrical Installation Design and Condition Based Maintenance	3	4#	0	0	30	70	25	0	25	150	3	2	0	0	5
303145	Elective-I	3	0	0	0	30	70	0	0	0	100	3	0	0	0	3
303146	Seminar	0	0	0	1	0	0	50	0	0	50	0	0	0	1	1
303147	<u>Audit course-</u> V	0	0	0	0	0	GR	RAD	E: PF	P/NP	0					
1	Total	350	100	75	25	700	15	5	0	1	21					
	30314	5: El	lectiv	e-I		1				3031	147 : A	udit	Cou	rse-	V	
303145A	: Advanced Mic	100	3031	47 A	· Fne	rov sta	rage	svste	ms							
System				al	Y		-	5051	τ/Λ	. <u>Line</u>	igy sto	lage	syste	/1115		
303145B	: <u>Digital Signal I</u>	Proce	essing	5	-F		112	3031	47B	: <u>Star</u>	t-up &	Disru	uptiv	e inn	ovatic	<u>n</u>
303145C	: Open Elective	11	ev.	-	-4	LITE	3111			an. V						
					SE	<u>CME</u>	<b>STE</b>	R-II								
Course	Course	Те	achin	g Sch	eme	-	Exan	ninatio	n Sch	eme	200.		1	Cre	dit	
code	Name	Th	Pr	Tu	/PW /IN	ISE	ESE	тw	PR	OR	Total	Th	Pr	Tu	SEM /PW /IN	Total
303148	<u>Power System-</u> <u>II</u>	3	2	1	0	30	70	25	50	0	175	3	1	1	0	5
303149	<u>Computer</u> <u>Aided Design</u> <u>of Electrical</u> <u>Machines</u>	3	4#	0	0	30	70	50	0	25	175	3	2	0	0	5
303150	<u>Control</u> <u>System</u> <u>Engineering</u>	3	2\$	1\$	0	30	70	25	0	25	150	3	1	0	0	4
303151	Elective-II	3	0	0	0	30	70	0	0	0	100	3	0	0	0	3
303152	Internship	0	0	0	4	0	0	100	0	0	100	0	0	0	4	4
303153	$303153  \frac{\text{Audit Course}}{\text{VI}}  2^*  0  0  0  0  0$										0	GR	RAD	E: PF	P/NP	0
	Total	280	200	50	50	700	12	4	1	4	21					
	303151			3	80315	53 : Ai	udit	Cou	rse-	VI						
303151A :	IoT and its Applic	cation	is in F	Electri	cal Eng	ineerin	lg	3031	53A: ]	Ethica	l Practi	ces fo	or Eng	gineer	<u>(8</u>	
303151B :	Electrical Mobilit	<u>y</u> .						3031:	53B : <u>I</u>	Projec	t Manag	gemer	<u>1t</u>			
303 151C:	Cybernetic Engine	eering														
#Dreatical	energy wanageme	anta Pr	mort I	Detak	ridge th		hatu	voon	haam	<i>e</i> -						

#Practical consists of Part A & part B. PART A; Regular experiments & part B; to bridge the gap between theory & actual industrial practices. For subject 303144; there will be auto cad drawing on Electrical installation, Electrical wiring, cabling etc. For 303149, Part A, Regular drawing by hand & part B same drawing by AutoCAD.

\$ tutorial credit merged with Practical.\* Conduct over and above these lectures.



PRINCIPAL Standchandra Pawar College of Engineering & Technology Somenhvarnagar, Tal. Baramaši, Dist. Pune (Pin : 412 386)

## Savitribai Phule Pune University

## Third Year of Computer Engineering (2019 Course)

	(W1	th ef	fect f	rom	Acad	emic Y	ear 202	21-22	)					
				Se	meste	er V								
Course Code	Course Name	To S (Ho	eachii chem urs/w )	ng ie veek	Exa	aminatio	on Sche	eme a	nd M	arks	C	redit	Sche	me
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total
310241	<u>Database Management</u> <u>Systems</u>	03	-	-	30	70	-	-	-	100	03	-	-	03
310242	Theory of Computation	03	I	I	30	70	-	-	-	100	03	-	-	03
310243	Systems Programming and Operating System	03	-	-	30	70	-	-	-	100	03	-	-	03
310244	Computer Networks and Security	03	-	-	30	70	-	-	-	100	03	-	-	03
310245	Elective I	03	-	-	30	70	-	-	-	100	03	-	-	03
310246	Database Management Systems Laboratory	-	04	-	-	-	25	25	-	50	-	02	-	02
310247	Computer Networks and Security Laboratory	-	02	-	-	-	25	-	25	50	-	01	-	01
310248	Laboratory Practice I	-	04	-	-	-	25	25	-	50	-	02	-	02
310249	Seminar and Technical Communication	-	-	01	-	-	50	-	-	50	-	-	01	01
	Total	15	10	01	150	350	125	50	25	700	15	05	01	21
310250	Audit Course 5												Gra	ide
								Te	otal (	Credit	15	05	01	21
310245 I 310245(1 310245(1 310245(1 310245(1 310245(1	Elective I Options: A) Internet of Things and E B) Human Computer Interf C) Distributed Systems D) Software Project Manag	ms)	<b>31025</b> 3102 3102 3102 3102 3102	<b>Audit</b> 50 (A) 50 (B) 50 (C) 50 (D)	t Cou Cybe Profe Learr Engin	rse 5 r Sec ssion <u>Nev</u> neerii	Option urity al Ethio v Skills ng Ecor	ns: cs and nomic	d Etic	luette	2 <u>S</u>			
			3102	50 (E)	Forei	gn La	anguage	<u>e</u>						

#### **Laboratory Practice I**

Assignments from Systems Programming and Operating System and Elective I



PRINCIPAL Standchandra Pawar College of Engineering & Technology Somenhwarnagar, Tal. Baramaši, Dist. Pune (Pin. 1412-386)

Home

	Savitribai Phule Pune University													
		Sav	vitrib	ai Ph	ule Pu	ne Uni	versity	7	~					
	Third Yea	r of	Con	npute	er Eng	gineer	ing (2	019	Cou	rse)		$\leq$	Home	
	(W	ith ef	fect	from .	Acade	mic Ye	ear 202	1-22	)					
				Sei	nestei	r VI								_
Course		T	eachi	ng										
Code	Course Name	CHO	urs/w	ie veek)	Exa	minatio	on Sche	me a	nd M	arks	Ci	redit S	Scher	ne
coue		(110	<u>\$\$</u>	con)										
		re	cal	ial	em	em	n K	cal		I	re	cal	ial	l
		<u>\$\$</u>	acti	ator	d-S	d-S	lerr vor]	acti	Ora	lota	ectu	acti	itor	lota
		I "	Pra	Τι	Mi	En		$P_{\Gamma_i}$	Ŭ		Γ	Pra	٦ı	
	Data Science and Big				•	- 0				100				
310251	Data Analytics	04	-	-	30	70	-	-	-	100	03	-	-	03
310252	Web Technology	04	-	-	30	70	-	-	-	100	03	-	-	03
310253	Artificial Intelligence	04	-	-	30	70	-	-	-	100	03	-	-	03
310254	Elective II	04	-	-	30	70	-	-	-	100	03	-	-	03
310255	Internship**	-	-	-	100 **	-	-	100	-	-	-	04 **		
	Data Science and Big													
310256	Data Analytics	-	04	-	-	-	50	25	-	75	-	02	-	02
	<u>Laboratory</u>													
310257	Web Technology	-	02	-	-	-	25	-	25	50	-	01	-	01
210250	Laboratory		0.4				50	25		76		02		02
310258	Laboratory Practice II	-	04	-	-	-	50	25	-	/5	-	02	-	02
	Total	12	10	-	120	280	225	50	25	700	12	09	-	21
310259	Audit Course 6												Gra	de
										Total	12	09	-	21
310254	Elective II Options:				31	0259 A	udit Co	ourse	6 O	otions:				
310254	(A) Information Security				3	810259	(A) <u>Dig</u>	ital a	nd So	cial Me	edia M	larket	ing	
310254	(B) <u>Augmented and Virtua</u>	l Rea	<u>lity</u>		3	10259	(B) <u>Sust</u>	ainat	ole Er	nergy S	ystem	<u>s</u>		
310254	(C) <u>Cloud Computing</u>	Ara	aitaat		3	810259	(C <u>) Lea</u>	dersh	<u>ip an</u>	d Perso	<u>nality</u>	Deve	lopm	ent
510254	(D) <u>Software modeling and</u>	<u>I AIC</u>	meet	ures	3	310259	(D) <u>For</u> (F)Lass	eign I	<u>_ang</u>	lage				
Laborat	ory Practice II.				1	\$10259	(E) <u>Lea</u>	<u>n Ne</u>	W SK	<u>1115</u>				
Assignm	ents from Artificial Intelli	igenc	e and	Elect	ive II.									
** Inter	nshin•	gene	• •••••											
Internsh	ip guidelines are provided	in co	urse	curricu	ılum sh	leet.								
<u>\$\$</u> Hour	s/Week for Theory Cours	se in '	Thire	l Year	of En	gineeri	ng, Ser	neste	r VI	:				
As p	er the apex bodies' recomme	ndatio	ons an	d guid	elines, i	t is need	d of the	day t	o trair	n the pre	e-final	year s	tuden	ts for
the indust	rial readiness through interns	ship.	As pe	r the g	uideline	es of AI	CTE, th	e dura	ation	of interr	nship is	s 4-6 v	weeks	after
completic	on of semester V and before	comn		ment o	f semes	ter VI,	so it is	appar	ent th	at the c	ontact	hours	of th	e TE
earned by	the students <b>Per semester</b>	usiy.	it be weeks	comes durat	mandat	ory as p at is suc	per the s	ideal	ire tha ly hy	at 4 crea the aff	ilis 101 filisted	inter	nsnip rersity	must v will

eventually reduce to fruitful 12 weeks after the implementation of the revised curriculum (2019 Course). With the evaluatory introduction of internship in the structure, we are left with the choice of 4 theory courses in the sixth semester with 12 weeks instead of traditional 15 weeks. To balance the credits and to achieve the minimum required contact hours, it is the reasonable choice to allot 4 hours / week for each theory course of the sixth semester of Third year of Engineering. The additional one lecture/ week will definitely be instrumental in achieving the largest of minimum contact hours. As such there is no correspondence of weekly load and credits earned, the credit allotted per course remain intact despite of the change. So it is almost imperative that the commencement of VI Semester need to be approx. 3 weeks beyond the schedule.

http://collegecirculars.unipune.ac.in/sites/documents/Syllabus2021/Forms/AllItems.aspx