



SOLAPUR UNIVERSITY, SOLAPUR

FACULTY OF ENGINEERING & TECHNOLOGY

COMPUTER SCIENCE & ENGINEERING

Structure & syllabus for

B.E. (Computer Science & Engineering)

w.e.f. Academic Year 2015-16



SOLAPUR UNIVERSITY, SOLAPUR

Computer Science and Engineering

Structure of B. E. (Computer Science & Engineering.) w.e.f. July 2015

SEMESTER – I

Sr. No	Name of the Subject	Teaching Scheme			Examination Scheme				Total
		L	T	P	Paper	T/W	OE	POE	
1	Advanced Computer Architecture	3	-	-	100	25	-	-	125
2	Distributed Systems	3	-	2	100	25	-	-	125
3	Modern Database Systems	4	-	4	100	25	-	50	175
4	Elective – I	3	-	-	100	25	-	-	125
5	Elective – II	3	-	-	100	25	-	-	125
6	Vocational Training	-	-	-	-	25	-	-	25
7	Lab I - Project Phase I	-	-	4	-	50	-	50	100
8	Lab-II - Python	2	-	2	-	50	-	-	50
	Total	18	-	12	500	250	-	100	850

SEMESTER -II

Sr. No	Name of the Subject	Teaching Scheme			Examination Scheme				Total
		L	T	P	Paper	T/W	OE	POE	
1	Management Information System	3	--	-	100	25	-	-	125
2	Information & Cyber Security	3	--	2	100	25	-	25	150
3	Elective -III	3	--	-	100	25	-	-	125
4	Elective – IV	3	--	-	100	25	-	-	125
5	Lab I - Web Technology	2	--	4	-	25	-	50	75
7	Lab II - Project Phase II	-	--	6	-	100	-	100	200
8	Lab-III -Open Source Technology	2	--	2	-	50	-	-	50
	Total	16	-	14	400	275	-	175	850

<p>Elective – I</p> <ol style="list-style-type: none"> 1. Human Computer Interaction 2. Digital Signal Processing 3. Software Testing & Quality Assurance 4. Business Intelligence 	<p>Elective – II</p> <ol style="list-style-type: none"> 1. Object Oriented Modeling & Design 2. Wireless Ad hoc Networks 3. Intelligent Systems 4. Mobile Application Development
<p>Elective – III</p> <ol style="list-style-type: none"> 1. Data Warehousing & Mining 2. Image Processing 3. Information Retrieval 4. Cloud Computing 	<p>Elective – IV</p> <ol style="list-style-type: none"> 1. Storage Area Network 2. Web 2.0 & Rich Internet Application 3. Artificial Neural Network 4. Big Data Analytics

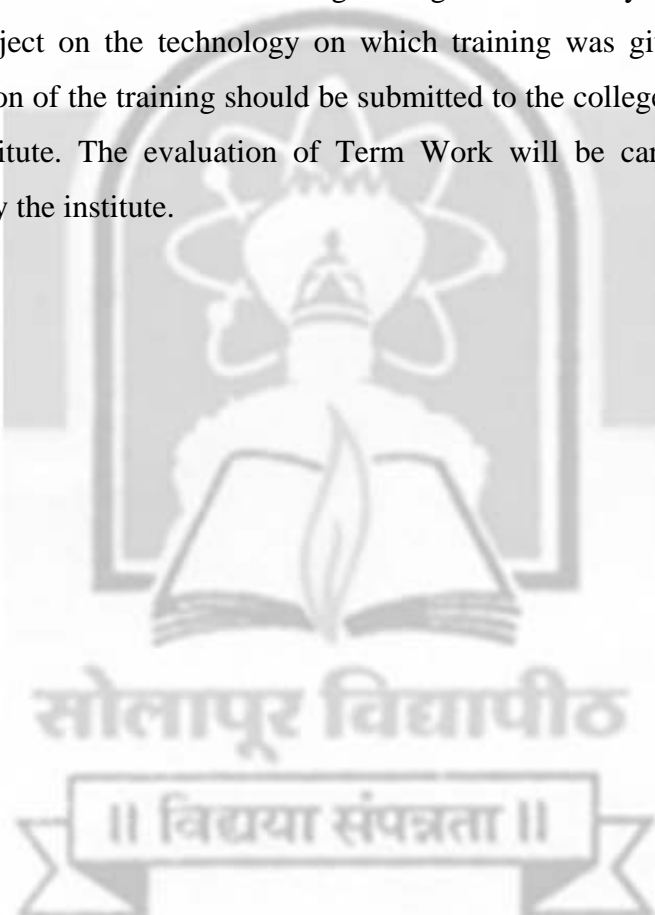


SOLAPUR UNIVERSITY, SOLAPUR
B.E. (COMPUTER SCIENCE & ENGINEERING)
SEMESTER - II

VOCATIONAL TRAINING

Examination Scheme
Termwork: 25 marks

The student should attend vocational training arranged at Industry or Institute and should complete a mini project on the technology on which training was given. A report regarding satisfactory completion of the training should be submitted to the college by competent authority from Industry / Institute. The evaluation of Term Work will be carried out by a panel of Examiners decided by the institute.





SOLAPUR UNIVERSITY, SOLAPUR
B. E. (COMPUTER SCIENCE & ENGINEERING)
SEMESTER - I

LAB I : PROJECT PHASE I

Teaching Scheme

Practical : 4 Hours /Week

Examination Scheme

Termwork : 50 Marks

POE : 50 Marks

COURSE OBJECTIVES:

- 1) Formulate a realistic problem statement using SDLC.
- 2) Follow an appropriate designing technique for further development of a project.
- 3) Get acquainted to work in a team.
- 4) Develop soft skills including presentation, writing & convincing.

COURSE OUTCOMES:

- 1) Define a realistic problem statement.
- 2) Select & apply an appropriate technique to create a design.
- 3) Work in teams with good coordination.
- 4) Present their work through oral communication & writing skills.

Strategy:

- 1) A project group shall be about 4 students.
- 2) Students have to study existing system, problems in existing system, proposed system, its definition, scope, design, introduction to programming tools, hardware and software platforms, planning, activity charts, planning for testing, test case design etc.
- 3) Project leader should maintain the progress register in which each member weekly contribution should be written and the guide will countersign the same.
- 4) A project design report will be submitted as a term work document at the end of semester.



SOLAPUR UNIVERSITY, SOLAPUR
B.E. (COMPUTER SCIENCE & ENGINEERING)
SEMESTER - II

LAB II – PROJECT PHASE II

Teaching Scheme

Practical : 6 Hours/Week

Examination Scheme

Termwork: 100 marks

POE : 100 marks

COURSE OBJECTIVES:

- 1) Formulate a realistic problem statement using SDLC.
- 2) Follow an appropriate designing technique for further development of a project.
- 3) Get acquainted to work in a team.
- 4) Develop soft skills including presentation, writing & convincing.

COURSE OUTCOMES:

- 1) Define a realistic problem statement.
- 2) Select & apply an appropriate technique to create a design.
- 3) Work in teams with good coordination.
- 4) Present their work through oral communication & writing skills.

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- 1) Project – II should contain the work like Design review, Implementation details, coding, Technologies used, Testing, Task distribution. Project leader should maintain the progress register in which each members weekly contribution should be written and the guide will countersign the same.
 - 2) A project report will be submitted as a term work document at the end of semester. Report must include References, Appendix, User manual / Technical reference manual, CD containing Project documentation, implementation, code, required utilities, Software and Manuals.
 - 3) Every student must prepare well formatted, printed and hard bound report.



SOLAPUR UNIVERSITY, SOLAPUR

FACULTY OF ENGINEERING & TECHNOLOGY

COMPUTER SCIENCE AND ENGINEERING

Syllabus Structure and detailed syllabus of

T.E. (Computer Science & Engineering)

w.e.f. Academic Year 2014-15



SOLAPUR UNIVERSITY, SOLAPUR
Computer Science and Engineering

Structure of T. E. (Computer Science & Engineering) w.e.f. July 2014

Semester – I

Sr. No	Name of the Subject	Teaching Scheme			Examination Scheme				Total
		L	T	P	Paper	T/W	OE	POE	
1	Operating System Concepts	3	1	2	100	25	-	50	175
2	System Programming	3	-	2	100	25	-	-	125
3	Computer Networks	4	-	2	100	25	-	50	175
4	Design and Analysis of Algorithm	3	1	-	100	25	-	-	125
5	Computer Organization	3	-	-	100	25	-	-	125
6	Lab – Java Programming	2		4	-	25	-	50	75
7	Self Learning (HSS)				50				50
	Total	18	2	10	550	150		150	850

Semester -II

Sr. No	Name of the Subject	Teaching Scheme			Examination Scheme				Total
		L	T	P	Paper	T/W	OE	POE	
1	Compiler Construction	3	-	2	100	25	-	-	125
2	Unix Operating System	3	-	2	100	25			125
3	Mobile Computing	3	1	-	100	25	-	-	125
4	Database Engineering	4	-	2	100	25	-	50	175
5	Software Engineering	3	1	-	100	25	-	-	125
6	Lab - Programming in C#.net	2	-	2	-	25	-	50	75
7	Mini project	-	-	2	-	25	25	-	50
8	Self Learning (HSS /Technical)				50				50
	Total	18	2	10	550	175	25	100	850

Subjects for Self Learning for Humanities and Social Sciences (HSS) <ol style="list-style-type: none"> Economics Psychology Philosophy Sociology Humanities 	Subjects for Self Learning for Technical Subjects <ol style="list-style-type: none"> Computer Modeling and Simulation Software licenses and practices Network set up & management tools
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Note:

- The term-work will be assessed based on continuous internal evaluation including class tests, assignments, performance in laboratories, Interaction in class, quizzes and group discussions as applicable.
- The batch size for practical/tutorials be of 15 students. On forming the batches, if the strength of remaining students exceeds 7 students, then a new batch may be formed.
- Mini Project shall consist of developing small software based on tools & technologies learnt in SE and TE.
- Project group for T.E.(CSE) Part II Mini Project shall be of 4 / 5 students
- Vocational Training (evaluated at B.E. Part-I) of minimum 15 days shall be completed in any vacation after S.E. Part-II but before B.E. Part-I & the report shall be submitted and evaluated in B.E. Part-I
- Student shall select one Self Learning Module from HSS at T.E. Part I and oneself learning module either from HSS or from technical at T.E. Part II
- Curriculum for Humanities and Social Sciences Self Learning Modules is common for all under graduate programmes under faculty of Engineering and Technology.



SOLAPUR UNIVERSITY, SOLAPUR

T.E. (Computer Science and Engineering)

Semester - II

7. Mini Project

Teaching Scheme

Practical – 2 Hrs/week

Examination Scheme

Termwork: 25 Marks

Oral Exam: 25 Marks

COURSE OBJECTIVES:

1. To undertake investigation of complex problems.
2. To motivate students to undertake design of a product, which is sustainable and meaningful to society
3. To enable students to acquire and develop professional skills.
4. To make students learn to work in team.
5. To encourage independent critical thinking, creativity and discipline.
6. To use modern tools and simulation packages
7. To prepare students to implement their acquired engineering knowledge for society.

COURSE OUTCOMES:

At the end of the course, student will be able to

1. Identify and define the problem.
2. Develop a sustainable product or offer a effective solution to industrial problem.
3. Present proposal within budgetary and time constraints with effective communication and writing skills.
4. Develop leadership qualities.
5. Criticize and refine own solution or product.
6. Apply modern tools and simulation packages to develop product.
7. Develop a strong sense of social responsibility and accountability.

Note:

1. There should be a group of preferably 4 students.
2. Students should be given projects in hardware, software, embedded or any contemporary topic in CSE and/or IT
3. One guide should be allocated per batch.

Mini Project ideas (but not limited to):

1. Online Examination module (Multiple choice questions)
2. Attendance recording and analysis software module
3. Examination Result analysis software module
4. Hardware exhibitors such as display board exhibiting all types of mouse / keyboards, HDDs, Monitors etc.), Internal architecture and working
5. Departments / College website
6. Library Management System
7. Hotel Management System
8. Time table generation
9. CD Library management system
10. Admission procedure automation

11. Online passport registration automation
12. Student Feedback system automation
13. Ice Cream parlor management system
14. Pizza hut – account management system
15. Multi player strategy game – Project ideas on Visual Basic, Java, Database
16. A speech response application using some hardware interface using the Microsoft SAPI SDK
17. LAN administrator tool (socket programming comes easy in VB) which will monitor application on a LAN and provide functions.
18. Voice mail systems
19. Computer telephony integration
20. Student Informa
21. Traffic Control s
22. Airline reservatic
23. Simulation for B
24. Mini Calculator i
25. Moving ball gam
26. Tic-tac-toe game
27. Design a persona

