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**

Elective – I 1. Human Computer Interaction 2. Digital Signal Processing 3. Software Testing & Quality Assurance 4. Business Intelligence	**Elective – II** 1. Object Oriented Modeling & Design 2. Wireless Ad hoc Networks 3. Intelligent Systems 4. Mobile Application Development
Elective – III 1. Data Warehousing & Mining 2. Image Processing 3. Information Retrieval 4. Cloud Computing	**Elective – IV** 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.

---

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 & ENGINEERING

Structure & syllabus for

T.E. (Computer Science & Engineering)
w.e.f. Academic Year 2018-19

Choice Based Credit System

Choice Based Credit System Syllabus Structure of T.E.Computer Science and Engineering W.E.F. 2018-2019 ***Semester I***

Course Code	Theory Course / Name	Hrs./Week			Credits	Examination Scheme			
		L	T	P		ISE	ESE	ICA	Total
CS311	Operating System Concepts	3	--	---	3	30	70	--	100
CS312	System Programming	3	--	---	3	30	70	--	100
CS313	Database Engineering	4	--	---	4	30	70	-	100
CS314	Design and Analysis of Algorithms	3	1	---	4	30	70	25	125
CS315	Computer Organization	3	1	---	4	30	70	25	125
CS316	Java Programming	2	---	---	2	25	--	--	25
SLH31	Self Learning Module 1	--	---	---	2	--	50	--	50
	Sub Total	**18**	**02**		**22**	**175**	**400**	**50**	**625**
	Laboratory								
							ESE		
							POE	OE	
CS311	Operating System Concepts	---		2	1	---	50	--	25	75
CS312	System Programming	---		2	1	---	---	--	25	25
CS313	Database Engineering	---		2	1	---	50	--	25	75
CS316	Java Programming	---		4	2	---	50	--	25	75
	Sub Total	**---**	**---**	**10**	**5**		**150**		**100**	**250**
	Grand Total	**18**	**02**	**10**	**27**	**175**	**550**		**150**	**875**

- *Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE- In Semester Exam, ESE - End Semester Exam,ICA- Internal Continuous Assessment, ESE - University Examination (Theory &/ POE &/Oral examination)*

Choice Based Credit System Syllabus Structure of T.E.Computer Science and Engineering W.E.F. 2018-2019 ***Semester II***

Course Code	Theory Course / Name	Hrs./Week			Credits	Examination Scheme			
		L	T	P		ISE	ESE	ICA	Total
CS321	Compiler Construction	4	--	--	4	30	70	--	100
CS322	Unix Operating System	3	--	--	3	30	70	--	100
CS323	Mobile Computing	3	1	--	4	30	70	25	125
CS324	Software Engineering	3	1	--	4	30	70	25	125
CS325	Mobile Application Development	3	--	_	3	30	70	--	100
CS 326	Programming in C# net	2	--	--	2	25	---	--	25
SLH 32	Self Learning Module 2	--	--	--	2		50	--	50
	Sub Total	**18**	**02**		**22**	**175**	**400**	**50**	**625**
	Laboratory								
							ESE		
							POE	**OE**	
CS321	Compiler Construction	--	--	2	1	---	--	---	25	25
CS322	Unix Operating System	--	--	2	1	---	---	---	25	25
CS325	Mobile Application Development	--	--	2	1	---	50	---	25	75
CS326	Programming in C# net	--	--	2	1	---	50	---	25	75
CS327	Mini Project	--	--	2	1	---	50	---	---	50
	Sub Total	**---**	**--**	**10**	**5**	**---**	**150**		**100**	**250**
	Grand Total	**18**	**02**	**10**	**27**	**175**	**550**		**150**	**875**

- *Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE- In Semester Exam, ESE - End Semester Exam,ICA- Internal Continuous Assessment, ESE - University Examination (Theory &/ POE &/Oral examination)*

Self Learning Module 1	**Self Learning Module 2**
Subjects for Humanities and Social Sciences (HSS) 1. Economics 2. Psychology 3. Philosophy 4. Sociology 5. Humanities	Subjects for Self Learning for Technical Subjects 1. Computer Modeling and Simulation 2. Software licenses and practices 3. Network set up & management tools 4. Ethical Hacking 5. Data Science 6. UI Technologies

Note:

1. The Internal Continuous Assessment (ICA) will be assessed based on continuous internal evaluation including class tests, assignments, performance in laboratories, Interaction in class, quizzes and group discussions as applicable.
2. 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.
3. Mini Project shall consist of developing small software based on tools & technologies learnt in SE and TE
4. Student shall select one Self Learning Course at T.E. Part I and T.E. Part II each from 'Humanities & Social Sciences (HSS)' and 'Technical' Group respectively.
5. For TE Part I -
   A. Student can select a Self Learning Course from Solapur University, Solapur HSS Course List and appear for its examination as and when conducted by Solapur University, Solapur.

   OR

   B. Student can enroll for National Programme on Technology Enhanced Learning (NPTEL) course, complete its assignments and appear for certificate examination as and when conducted by NPTEL.

   For more details about Self Learning Course (HSS) please refer to separate rule document available from Solapur University, Solapur
   More details about NPTEL are available at http://nptel.ac.in
6. Project group for T.E.(CSE) Part II Mini Project shall be of 4 / 5 students
7. 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
8. Curriculum for Humanities and Social Sciences Self Learning Modules is common for all under graduate programmes of faculty of Engineering and Technology.