SDM College OF Engineering & Technology

Dharwad-580002

Department Of Information Science & Engineering

<u>SCHEME</u>

Academic Year: 2021-22

HOD-ISE

Academic Year : 2021-22
Scheme for III Semester

| Course Code | Course Category | Course Title | Teaching | | Examination | | | | |
			L-T-P (Hrs/Week)	Credits	CIE Max. Marks	Theory (SEE) *Max. Marks	Theory (SEE) Duration in hours	Practical (SEE) Max. Marks	Practical (SEE) Duration in hours
18UMAC300	BS	Engineering Mathematics-III	3 - 0 - 0	3	50	100	3	-	-
18UISC300	PC	Data Structures	3 - 2 - 0	4	50	100	3	-	-
18UISC301	PC	Logic Design	3 - 0 - 0	3	50	100	3	-	-
18UISC302	PC	Discrete Mathematics & Graph Theory	4 - 0 - 0	4	50	100	3	-	-
18UISC303	PC	Unix and Shell Programming	3 - 0 - 2	4	50	100	3	-	-
18UISC304	PC	Computer Organization and Architecture	3 - 0 - 0	3	50	100	3	-	-
18UISL305	PC	Data Structures Laboratory	0 - 0 - 3	1.5	50	-	-	50	3
18UISL306	PC	Logic Design Laboratory	0 - 0 -3	1.5	50	-	-	50	3
Total			**19 - 2 - 8**	**24**	**400**	**600**		**100**	

CIE: Continuous Internal Evaluation   **SEE**: Semester End Examination*

L: Lecture   **T**: Tutorials   **P**: Practical

*SEE for theory courses is conducted for 100 marks and reduced to 50 marks

BS- Basic Science, PC- Program Core

Scheme for IV Semester

Course Code	Course Category	Course Title	Teaching		Examination					
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)			Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in hours		Max. Marks	Duration In hours
18UMAC400	BS	Engineering Mathematics - IV	3 - 0 - 0	3	50	100	3		-	-
18UISC400	PC	Object Oriented Programming	4 - 0 - 0	4	50	100	3		-	-
18UISC401	PC	Microcontroller	4 - 0 - 0	4	50	100	3		-	-
18UISC402	PC	Finite Automata and Formal Language	3 - 2 - 0	4	50	100	3		-	-
18UISC403	PC	Design and Analysis of Algorithms	3 - 0 - 0	3	50	100	3		-	-
18UISC404	PC	Operating System	3 - 0 - 0	3	50	100	3		-	-
18UISL405	PC	Object Oriented Programming Laboratory	0 - 0 - 3	1.5	50	-	-		50	3
18UISL406	PC	Microcontroller Laboratory	0- 0- 3	1.5	50	-	-		50	3
18UISL407	PC	Introductory Project	0 - 0- 2	1	50	-	-		-	-
Total			20 - 2 -8	25	450	600			100	

CIE: Continuous Internal Evaluation   **SEE**: Semester End Examination* **L**: Lecture   **T**: Tutorials   **P**: Practical

*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

BS- Basic Science, PC- Program Core

Total Credits offered for the Second year: 49

Scheme for V Semester

Course Code	Course Category	Course Title	Teaching		Examination					
			L-T-P (Hrs./Week)	Credits	CIE	Theory (SEE)			Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UHUC500	HU	Management, Entrepreneurship and IPR	4 - 0 - 0	4	50	100	3	-	-
18UISC500	PC	Software Engineering	4 - 0 - 0	4	50	100	3	-	-
18UISC501	PC	Java and Web Technology	4 - 0 - 0	4	50	100	3	-	-
18UISC502	PC	Database Management System	3 - 0 - 0	3	50	100	3	-	-
18UISC503	PC	Computer Networks	3 - 0 - 0	3	50	100	3	--	--
18UISE5XX	PE	Program Elective-1	3 - 0 - 0	3	50	100	3	--	--
18UISL504	PC	Database Management System Lab	0 - 0 - 3	1.5	50	--	--	50	3
18UISL505	PC	Java Lab	0 - 0 - 3	1.5	50	--	--	50	3
18UISL506	PC	Minor Project-1	0 - 0 - 2	1	50	--	--	--	--
18UHUL507	HU	Soft skills/Aptitude	0 - 0 - 2	1	50	--	--	--	--
Total			21 - 0 - 10	26	500	600		100	

CIE: Continuous Internal Evaluation   **SEE**: Semester End Examination* **L**: Lecture   **T**: Tutorials **P**: Practical
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks
PC- Program Core HU- Humanities, PC- Program Core

 Minor project – 1 is undertaken to focus on the domain related problem definitions, building prototypes which can lead to take

up the project in the higher semester(s). The work based on the core courses studied shall be used to formulate the problem. The team consisting of 10-12 students shall be asked to identify the problems related to community and try to propose the solution. The faculty members handling the courses for that semester shall guide the students. A committee consisting of minimum 3 faculty members shall evaluate at the end for CIE. There is no SEE for Minor project-1.

Soft skills/Aptitude: This is included with an objective of improving the communication skills, proficiency in English language and aptitude ability of the student. This is a credit course and aimed to enhance the employability. Both the internal and external resource persons shall be engaged in imparting the related knowledge and shall have only CIE as the evaluation component. There shall be one test conducted at the end for 25 marks in Aptitude testing and there shall be one presentation by the student for 25 marks or any other suitable testing components. The arrangement for CIE evaluation is to be done by the department and maintain the relevant documents.

Management, Entrepreneurship and IPR course shall be taught in the V semester only. However, the departments can take flexibility of deciding the contents of the course as per the department specific requirements. The credit for this course is 4 and common to all departments

Elective

Code	Elective – 1
18UISE511	System software
18UISE512	Advanced Data Structures
18UISE513	Real Time Operating Systems and Embedded Systems

Scheme for VI Semester

Course Code	Course Category	Course Title	Teaching		Examination					
			L-T-P (Hrs./Week)	Credits	CIE Max. Marks	Theory (SEE) *Max. Marks	Theory (SEE) Duration in Hrs.	Practical (SEE) Max. Marks	Practical (SEE) Duration in Hrs.
18UISC600	PC	Artificial Intelligence and Machine Learning	3-0-2	4	50	100	3	-	-
18UISC601	PC	Internet of Things	4-0-0	4	50	100	3	-	-
18UISE6XX	PE	Program Elective-2	3-0-0	3	50	100	3	-	-
18UISE6XX	PE	Program Elective-3	3-0-0	3	50	100	3	-	-
18UISO6XX	OE	Open Elective	3-0-0	3	50	100	3	--	--
18UISL602	PC	Computer Networks Lab	0-0-3	1.5	50	--	--	50	3
18UISL603	PC	Web Technology Lab	0-0-3	1.5	50	--	--	50	3
18UISL604	PC	Minor Project-2	0-0-4	2	50	--	--	50	3
18UHUL605	HU	Soft skills/Aptitude	0-0-2	1	50	--	--	--	--
		Total	**16 - 0 -14**	**23**	**450**	**500**		**150**	

CIE: Continuous Internal Evaluation   **SEE**: Semester End Examination* **L**: Lecture   **T**: Tutorials **P**: Practical
*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.
PC- Program Core, PE-Program Elective, OE- Open Elective and HU- Humanities.

Total Credits offered for the Second year: 49

Elective

Code	Elective – 2	Code	Elective – 3	Code	Open Elective
18UISE611	ADBMS	18UISE621	Object Oriented Modeling and Design	18UISO631	Management Information Systems
18UISE612	User Interface Design	18UISE622	Data mining	18UISO632	Cyber Law and Ethics
18UISE613	Computer graphics using Open GL	18UISE623	Unix System Programming	18UISO633	Agile Methodologies

Scheme for VII Semester

Course Code	Course Category	Course Title	Teaching		Examination					
			L-T-P (Hrs./Week)	Credits	CIE	Theory (SEE)			Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.		Max. Marks	Duration in Hrs.
18UISC700	PC	Big Data Analytics	3-2-0	4	50	100	3		-	-
18UISC701	PC	Storage Management	4-0-0	4	50	100	3		-	-
18UISO7XX	PE	Program Elective-4	3-0-0	3	50	100	3		-	-
18UISE7XX	OE	Open Elective	3-0-0	3	50	100	3		--	--
18UISL702	PC	Big Data Analytics Lab	0-0-2	1	50	--	--		50	3
18UISL703	PC	Major Project Phase-1	0- 0 -4	2	50	--	--		50	3
18UISL704	PC	Internship	4 weeks	2	50	--	--		50	3
Total			13-2-6	19	350	400			150	

CIE: Continuous Internal Evaluation **SEE**: Semester End Examination* **L**: Lecture   **T**: Tutorials **P**: Practical

*SEE for theory courses is conducted for 100 marks and reduced to 50 marks   **PC**- Program Core

Elective

Code	Elective – 4	Code	Open Elective
18UISE711	Digital Image Processing	18UISO721	Cloud Computing
18UISE712	Mobile Communication and Computing	18UISO722	Supply Chain Management
18UISE713	Deep Learning	18UISO723	Virtual Reality and Augmented Reality

Scheme for VIII Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs./Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UISC800	PC	Cryptography and Cyber Security	4-0-0	4	50	100	3	-	-
18UIS8XX	PE	Program Elective-5	3-0-0	3	50	100	3	-	-
18UISO8XX	OE	Open Elective	3-0-0	3	50	100	3	--	--
18UISL801	PC	Technical Seminar	0-0-2	1	50	--	--	--	--
18UISL802	PC	Major Project Phase-2	0-0 -12	7	50	--	--	50	3
Total			10-0-14	18	250	300	--	50	--

PC- Program Core

PE-Program Elective

OE- Open Elective   **Total Credits offered for the Fourth year: 37**

Technical Seminar: The students are expected to learn how to carry out literature survey to locate the state of the art technology in engineering domain of their interest. They are required to carry out selection of an emerging topic beyond the syllabus relevant to the branch of study, understand the concept, analyze and present effectively for 15-20 minutes followed by 5 minutes of questions and answers before their classmates and faculty. They can also present the technical innovative/novel work carried out in the laboratory. They are also required to learn the effective communication and modalities of technical interactions. Further, they have to submit the seminar material in the form of a paper in IEEE format. All the students are required to attend all the session throughout the semester.

Procedure to conduct technical Seminar:
- All the students are informed to select a topic from the field of their interest from their branch or relevant to their branch and register the topic with the faculty (ies) In charge of Seminar.
- Two faculty members assigned to carry out this activity. The faculty members prepare the schedule of the seminar spread over the entire semester and display the same in the notice board.
- Change of seminar topic is not allowed once registered, however in the case of genuine reasons only once change of topic may be permitted.
- Based on the number of hours mentioned in the scheme, 4-6 students shall present the seminar in one slot of 2/3 hours.

- The faculty members shall conduct the seminar session every week as per the schedule in the slot mentioned on the time table and carry out the evaluation.
- Attendance is compulsory for all the students for all the seminars.
- The students are required to submit two hard copies of report not exceeding 6 pages and one soft copy of seminar report one week prior to their date of presentation.
- Report shall be in IEEE format viz A4 size paper, Title: Bold, Times new Roman Font 14, Sub heading & Body of the text: Times new Roman font 12. Margin for left should be 1 ½.
- Student name, USN, seminar date should be mentioned on the report.
- Presentation is for about 15-20 minutes, followed by 5 minutes for questions and answers.
- Typical evaluation methodology: The seminar shall be evaluated for maximum 50 marks. The breakup of marks shall be: Presentation: a) 40 marks   b) Report: 10 marks.

For presentation, the following points not limited to may be considered.

- Concept, understanding, depth of the knowledge, originality of the topic, Quality of PPT, communication skills etc.
- For report evaluation, the following points not limited to may be considered
- Adherence to IEEE format, relevance of topic, subject depth and originality in writing etc.
- The seminar is aimed at as an educative program for the students. This is because, the students shall listen to 60- 70 seminars on different topics from emerging areas is as good as undergoing a course on latest happenings in the related branch of Engineering.
- The departments going for independent study in place of technical seminar shall plan, prepare the modalities and take the approval from Dean (AP).

Elective

Code	Program Elective-5	Code	Program / Open Elective
18UISE811	Wireless Sensor Networks	18UISO821	DevOps
18UISE812	Block Chain Management	18UISO822	Data Sciences
18UISE813	Data Compression	18UISO823	Computer Vision