

2.6.2 Attainment of Programme Outcomes And Course Outcomes as evaluated by the institution

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S.No	Subject
1	Attainment Procedure of POs And COs
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PRINCIPAL
 Sree Dattha Group of Institutions
 Sheriguda (V), R.R. Dist. 501 510.

Sponsored by Vyjayanthi Educational Society

ATTAINMENT PROCEDURE OF POS AND COS

Assessment processes used to gather the data upon which the evaluation of Course Outcome

Tools/Activities for CO Attainment

Activity	Responsibility	Frequency	TimeLine
Internal Examination Conduction	Department Exam Section	Twice per Semester	As per JNTUH academic Calendar
Evaluate the answer	Respective Faculty	Twice per Semester	Two days from examination completion
Standard format for Course Outcome	Assessment	Once per Semester	Beginning of semester
Evaluate question wise and calculate the course Attainment	Respective Faculty	Twice per Semester	Four days from examination completion
Submit the course attainment to Assessment Committee	Respective Faculty	Twice per Semester	Five days from examination completion
Consolidation of attainments for all courses and report submission to HOD	Assessment Committee	Twice per Semester	Six days from examination completion
Analys is of attainments and corrective measures for all courses	HOD	Twice per Semester	One week From report availability

Rubrics for CO Attainment(Theory courses-Direct Method)

Tool	Weightage	Base Mark	Rubric
Internal Subjective Examination	25%	Class Average	1:60-70%students 2:>70-80% students 3:>80%students
University Examinations	75%	Class Average	1:40-50%students; 2:>50-70%students; 3:> 70-100% students

Rubrics for CO Attainment(Lab courses)

Tool	Weightage	BaseMark	Rubric
Day today work Record Internal Examinations	25%	Class Average	1:60-70%students 2:>70-80% students 3:>80%students
University Examinations	75%	Class Average	1:40-50%students; 2:>50-70%students; 3:> 70-100% students

Rubrics for CO Attainment(Projects)

Tool	Weightage	Base Mark	Rubric
Internal Evaluation of Project	25%	Class Average	1:60-70%students 2:>70-80% students 3:>80%students
Report Presentation & Viva	75%	Class Average	1:60-70%students 2:>70-80% students 3:>80%students

Indirect Method:

Rubrics for CO Attainment(Stakeholders)

Tool	Weightage	Base Mark	Rubric
CO feedbacks	100%	Class Average	Average on 3 point Scale

Sample Feedback form of II Year I Sem is shown below

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ASSESSMENT OF COURSE OUTCOMES

CAY: 2022-23 Year&Sem: 3-1 Date: Year 2022-23

Please evaluate on the following scale :

Very Good	Satisfactory	Need Improvement
3	2	1

S.No	QUESTIONNAIRE	Your Rating
GENERAL OBJECTIVES :		
1	Has the course achieved its stated objectives ?	3
2	Have you gained the stated skills ?	2
3	Whether the syllabus is adequate to achieve the objectives ?	2
4	Whether the teacher has helped in acquiring the stated skills ?	2
5	Whether the teacher has given real life applications of the course?	1
COURSE OUTCOMES -Formal Languages And Automata Theory		
C311.1	Describe the concept of abstract machines and their power to recognize the languages.	3
C311.2	Implement finite state machines for modeling and solving computing problems.	2
C311.3	Design context free grammars for formal languages.	2
C311.4	Distinguish between decidability and undesirability.	2
C311.5	Solve mathematical tools and formal methods	1
C311.6	Implement mathematical and formal techniques for solving problems in computer science	1
COURSE OUTCOMES -Software Engineering		
C312.1	Explain the software engineering, process And software process-models.	3
C312.2	Discuss minimum requirements, types of requirements for the development of application.	3
C312.3	Describes various system models for business processes and understanding the existing system.	3
C312.4	Implement the efficient reliable software	2

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	Solutions by creating a blueprint for further development.	2
C312.5	Constructs software engineering testing and risk strategies, and develops their appropriate applications.	2
C312.6	Develop critical thinking and evaluate assumptions and argument.	1
COURSE OUTCOMES -Computer Networks		
C313.1	Gain the knowledge of the basic computer network technology.	3
C313.2	Describe the functionalities of each layer in the OSI and TCP/IP reference model	3
C313.3	Implementation of Multiple Access Protocols to solve channel allocation problem.	3
C313.4	Implementation of sub netting and routing mechanisms.	1
C313.5	Describe the essential transport protocols.	2
C313.6	Familiarity with the essential protocols of computer networks, and how they can be applied in network design and implementation.	2
COURSE OUTCOMES -Web Technologies		
C314.1	Interprets suitable server-side applications using PHP.	3
C314.2	Illustrates the representation of data in XML format and Parses the data using various Java Parsers.	2
C314.3	Design programs to interact with the Data Base using Java Servlets	2
C314.4	Develops programs using JSP for processing session tracking using Cookies and sessions.	2
C314.5	Develops appropriate client-side scripting programs Using JavaScript and AJAX	2
C314.6	Determine the appropriate web technology and builds web applications.	1
C314.1	Interpret suitable server-side applications using PHP.	1
COURSE OUTCOMES -Principles of Programming Languages		
C315.1	Describe the syntax and semantics in formal notation	3
C315.2	Implement suitable programming paradigm for the application	3
C315.3	Compare the features of various programming languages.	3
C315.4	Explain programming paradigms of modern programming languages	2
C315.5	Summarize the concepts of ADT and OOP.	2

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C315.5	Summarize the concepts of ADT and OOP.	
C315.6	Design program in different language paradigms and compare their relative benefits.	
COURSE OUTCOMES -Natural Language Processing		
C318.1	Show sensitivity to linguistic phenomena and an ability to model them with formal grammars.	
C318.2	Understand and carry out proper experimental methodology for training and evaluating empirical NLP systems	
C318.3	Able to manipulate probabilities, construct statistical models over strings and trees, and estimate parameters using supervised and unsupervised training methods.	
C318.4	Able to design, implement, and analyze NLP algorithms	
C318.5	Able to design different language modeling Techniques.	

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Assessment tools and processes used form easuring the attainment of each of the Program
Out comes and Program Specific Outcomes

Tool used	Frequency of data collection	Responsible person	Assessment criterion	Rubric for Attainment Level
Coursework	Once per semester	Course coordinator	Individual PO Avg*CO Attainment/3	1:60-70%students 2:>70-80% students 3:>80% students
Lab work	Once per semester	Lab Coordinator	Individual PO Avg*CO Attainment/3	1:60-70%students 2:>70-80% students 3:>80% students
Project work	Once per semester	Examination cell	Students scored> class average mark	1:60-70%students 2:>70-80% students 3:>80%students
CO Feedback	Once per semester	HOD	Students scored> class average mark	1:Poor 2:Satisfactory 3:Very Good
Exit student Feedback	Once per year	HOD	Average of entire feedback	1:Poor 2:Satisfactory 3:Very Good
Alumni Feedback	Once per year	Alumni coordinator	Average of entire feedback	1:Poor 2:Satisfactory 3:Very Good
Employer feedback	Once per year	T&PCG Coordinator	Average of entire Feedback	1:Pool1:Poor 2:Satisfactory 3:VeryGood

Direct attainment level of a PO & PSO is determined by taking average across all courses addressing that PO and/or PSO

Indirect attainment level of PO & PSO is determined based on the student exit surveys, employer surveys

Overall PO attainment Level of PO & PSO is calculated by considering 20% of Indirect Attainment and 80% of Direct Attainment

Course Assessment

Course Name: OPPS C++

Academic
Year:
Year &
Semester:
Branch
&
section
:

2022-
2023

Faculty Name: Mrs P. Annupama

II/I

Course Code: CS702PC

CSE.A,B
&C

		Direct Assessment										Indirect Assessment	
S.No	Reg.No	MID I Threshold 60%					MID II Threshold 60%					Threshold 40% (30M)	Thresold 60% Course End Survey
		C01,C02,C03	CO1	CO1	CO2	C03	CO4,CO5,CO6	CO4	C05	CO6	CO6		
		ASM-I (5M) +Obj (10M)	Q1(5 M)	Q2(5 M)	Q3(5 M)	Q4(5 M)	ASM-I (5M) +Obj (10M)	Q1 (1M)	Q2 (1M)	Q3 (1M)	Q4 (1M)	End Exam (75M)	
1	219P1A0501	9	2		4		12	4			3	36	3
2	219P1A0502	10	5		5		10	3		3		46	3
3	219P1A0503	10		5		5	11		2	5		47	3
4	219P1A0504	11		2	5		10	5			5	48	3
5	219P1A0505	11		3		3	5	4		3		43	3
6	219P1A0506	9	2			3	12		3		3	47	3
7	219P1A0508	15	5			5	13	4		4		54	
8	219P1A0509	13		3	4		10		5		5	53	3
9	219P1A0510	14	1		4		12	4		4		49	2
10	219P1A0511	15		1		5	13		4		4	46	3
11	219P1A0512	11	5		2		10	5		5		42	3
12	219P1A0513	15		5		5	13		5		3	46	3
13	219P1A0514	15	1		5		11	4		4		51	3
14	219P1A0515	11		3		1	11		4		3	46	3
15	219P1A0516	12	3		3		10	5		5		47	3
16	219P1A0518	13		1		4	11		2		5	46	3
17	219P1A0519	12	1		3		11	5		4		37	3
18	219P1A0520	9		3		1	12		4		2	44	3
19	219P1A0521	10	3		1		13	3		5		17	3
20	219P1A0522	8		1		1	11		4		4	43	
21	219P1A0523	11	4		3		15		5	5		40	2
22	219P1A0525	9	5		4		13	5			5	44	3
23	219P1A0526	10		1		4	10		5		5	30	3
24	219P1A0527	13	5		4		13	5		5		48	2
25	219P1A0528	7	1		4		9			5		27	2

26	219P1A0529	11		5		1	11		2		5	45	3
27	219P1A0530	12	1		4		10	5		3		46	3
28	219P1A0531	11		1	5		11		3		4	46	3
29	219P1A0532	10	5			5	10		3		5	29	3
30	219P1A0533	8		1		1	13		5	5		42	3
31	219P1A0534	11	4			1	11	2			5	59	3
32	219P1A0535	8		5		5	13	5			5	54	3
33	219P1A0536	14	1		5		11		4		5	48	3
34	219P1A0537	15	5			4	13	3			5	8	3
35	219P1A0538	12		1	2		10		2	4		52	3
36	219P1A0539	10	5		4		11		1		4	48	3
37	219P1A0540	13		1		1	10		5		5	45	3
38	219P1A0541	14		5		5	11	5		4		47	3
39	219P1A0542	8		1	5		10	5			3	46	3
40	219P1A0543	10	5			4	8	4			4	31	3
41	219P1A0544	14	1			3	11		3		5	49	3
42	219P1A0545	14		5	4		11	3		5		20	3
43	219P1A0546	13		1		5	15		5		5	22	3
44	219P1A0547	15	1		5		15		5	5		15	3
45	219P1A0548	13	5			5	15	5			5	36	3
46	219P1A0549	11	1		5		10	5		5		38	3
47	219P1A0550	14	1			1	10		5		5	45	3
48	219P1A0552	11		1	5		10	3		5		34	3
49	219P1A0553	13	4			5	10		5		5	17	3
50	219P1A0554	11		1	5		11	5		5		39	3
51	219P1A0555	10	5			3	11		5			21	3
52	219P1A0556	11		1	4		13	5			5	31	3
53	219P1A0558	10		1		1	10		2		4	48	
54	219P1A0559	10	3		5		9	2		5		46	3
55	219P1A0560	11	2			1	12	4			2	34	3
56	219P1A0561	15		4	4		13		3	5		31	3
57	219P1A0562	4		5		5	10	5			5	26	3
58	219P1A0563	11	5		5		15		5	3		29	3
59	219P1A0564	13		1	5		14		5	4		23	3
60	219P1A0565	11		1		3	14	4		5		27	3
61	219P1A0566	11		5	4		14		5		4	45	3
62	219P1A0567	13	4	1		1	14	5			4	34	2
63	219P1A0569	11		5	5		12		5	2		55	2

64	219P1A0570	15		5	2		13		4		4	61	3
65	219P1A0571	4	3		5		12		5		3	49	3
66	219P1A0573	13		1		5	14		4		5	52	3
67	229P5A0501	11		5	3		11		5	2		53	3
68	229P5A0502	12		1		1	10	5			4	47	3
69	229P5A0503	15	5			3	12		5	4		60	3
70	229P5A0504	11		1		1	10	2		4		47	3
71	229P5A0505	9		1	3		13		5		5	42	3
72	229P5A0506	11	1			5	13	5		5		59	
73	229P5A0507	12	5			5	10		5		4	62	3
74	229P5A0508	11	5		3		12		5		3	58	3
75	229P5A0509	4		1	3		10	5			5	56	3
76	229P5A0510	13		1	4		15		5		5	64	3
77	229P5A0511	9		1		1	12	4			5	15	3
78	229P5A0512	8	1		2		13	3		5		63	3
79	229P5A0513	11		3		1	12		2		5	47	3
80	229P5A0514	12	1		5		9		5	5		40	3
81	229P5A0515	4		5		1	9		5		5	5	3
82	229P5A0516	11		5	5		13		3		5	64	3
83	229P5A0517	11		1	4		10	5		5		52	3
84	229P5A0518	9	3		3		12		5		5	52	3
85	229P5A0519	11		1		4	12	4		5		52	3
86	229P5A0520	5	5		5		7	5			3	51	
87	229P5A0521	5		1		5	13		5		5	49	3
88	229P5A0522	11	1		5		9		5		4	44	3
89	229P5A0523	4	1		5		12		5	3		37	3
90	229P5A0524	11		1		1	11		3		5	24	3
No of students attempted		90	43	48	47	43	90	40	49	37	52	90	85
No of students performed above threshold		78	26	20	43	27	88	38	43	36	51	75	80
SEE												83.33	
CIA		86.6 7	50. 55		91.4 9	62.7 9	97.78	95. 00	87. 76	97.3 0			
ATTAINMENT		3	1		3	1	3	2	1	3		2	2.96875

Direct PO Attainment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO1 2	PSO 1	PSO 2	PSO3
C211	2.36	1.57	1.96						0.78	1.58	1.98	1.5 6	1.5 6	0.7 8	0.79
C212	1.74	1.74	1.36	1.26	0.70							0.5 7	0.8 8	1.3 1	1.14
C213	1.73	1.17										1.1 5		1.1 5	0.56
C214	1.92	2.01	1.96	0.72									1.6 3	1.7 7	1.00
C215	1.69	1.94	2.82	1.59								1.9 0	2.4 7	2.7 1	0.78
C216	2.40	2.26	2.08	2.13	2.40					0.80	2.40	1.0 6	2.1 3	2.1 3	0.93
C217	2.80	2.50	2.65	2.34	2.18					1.00	1.10	1.1 0	2.6 4	2.1 8	1.08
C218	2.60	2.16	2.20	2.02	26.00					1.00	12.0 0	1.1 8	2.3 0	1.0 9	1.17
C219	2.80	2.50	2.65	2.30	2.00					2.00	1.00	1.0 0	2.5 0	2.0 2	1.40
C311	1.56	1.48	1.03	1.28	1.63								1.2 9	1.3 3	0.69
C312	1.56	0.55	1.32	0.57	1.04	0.55	0.90	0.57	0.57	0.83			1.1 1	0.6 9	0.54
C313	1.66	1.45	1.51	0.94	0.81	0.95							1.6 2	1.1 1	
C314	0.93	0.77	1.68		2.33								0.7 8	1.4 2	0.90
C315	1.09	1.19		1.65	0.57							1.1 4	1.2 1	1.0 9	
C316	1.07	1.89	2.02	0.95									2.1 1	1.5 0	0.72
C317	3.00	3.00	3.00	2.60	2.80	2.60	2.20	1.80	1.80	2.00	1.80	1.0 0	3.0 0	1.8 0	1.00
C318	3.00	3.00	3.00	2.60	2.80	2.20	2.80	2.40	2.00	2.60	2.20	1.0 0	3.0 0	2.0 0	1.00
C319	3.00	3.00	3.00	2.60	2.80	2.00	2.00	2.00	1.60	2.00	2.00	1.0 0	3.0 0	1.8 0	1.00
C411	1.27	1.27	1.48	1.65	1.57								1.8 6	1.6 7	2.35
C412	1.93	1.47	2.25	1.69	1.51	1.47							1.9 6	1.9 9	2.21
C413	2.08	1.47	2.27	1.67	1.49							1.1 4	1.8 9	2.2 3	2.23
C414	1.40	1.43	1.37	1.08	0.55				0.82	0.69	1.12	0.6 9	1.4 4	1.1 7	0.54
C415	1.77	1.80	2.00			2.14	1.67			2.88			1.9 0	1.0 0	1.88
C416	3.00	3.00	3.00	2.00	3.00					1.00	2.00	1.0 0	3.0 0	3.0 0	1.00
C417	3.00	3.00	3.00	3.00	3.00	3.00	1.00	1.00	1.00	1.00	2.00	1.0 0	3.0 0	3.0 0	1.00
C418	3.00	3.00	2.83	2.80	3.00	2.00	2.00	2.00	3.00	3.00	3.00	3.0 0	3.0 0	3.0 0	2.00
C419	3.00	3.00	2.80	2.80	3.00	2.00	2.00	2.20	2.17	3.00	3.00	3.0	3.0	3.0	2.00

												0	0	0	
C221	1.67	1.13	0.94	1.11									1.5 8	1.3 0	0.65
C222	2.27	1.52	1.28	1.53									2.1 4	1.9 4	0.88
C223	1.86	1.50	0.86	1.33									1.9 9	1.4 9	0.89
C224	1.73	2.12	1.88	1.80	1.69				2.00				1.8 4	1.4 8	1.23
C225	2.54	1.69	1.82	2.60						1.86	1.55	1.6 7	2.2 3	1.9 7	1.57
C226	2.02	2.60	2.60	2.49	1.80					1.40	1.25	1.2 5	2.6 5	2.1 8	1.25
C227	2.34	2.40	2.20	2.49	1.71					1.25	1.09	2.0 0	2.6 4	2.1 8	2.25
C228	2.65	2.80	2.60	2.03	2.18					1.25	1.24	1.0 9	2.4 9	2.4 3	1.25
C321	2.73	1.80	1.59	1.80									2.7 3	1.8 2	0.91
C322	2.76	2.76	1.84	1.84									2.6 0	1.9 9	0.92
C323	2.68	2.69	1.79	1.80									2.6 8	1.7 8	0.89
C324	1.40	2.04	1.93	1.72	1.40	1.55		1.34			0.70	0.7 0	1.3 6	2.0 4	0.68
C325	2.67	2.66	2.66	2.66	2.66	0.87							1.6 0	1.7 8	0.89
C326	2.50	3.00	1.75	1.67	2.00						2.00	2.0 0	3.0 0	2.0 0	1.00
C327	2.00	2.40	1.50	1.00	2.17						1.50	2.5 0	2.0 0	1.0 0	1.00
C328	2.33	2.00	1.50	1.33	1.50						1.75	1.5 0	2.0 0	2.0 0	1.00
C421								1.87	2.03	1.41	1.25	0.9 4			2.35
C422	1.96	2.29	2.27	2.43	1.95	2.50	1.93	1.61		2.27	1.98	1.9 7	1.7 2	1.9 3	1.22
C423	0.93	1.84		1.38		1.87	0.93			2.79					2.00
C424	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.0 0	3.0 0	3.0 0	3.00

OVERALL PO-ATTAINMENT

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Sem-1	1.97	1.83	1.97	1.70	2.81	1.58	1.52	1.26	0.48	1.62	2.64	1.29	1.81	1.61	1.32
Sem-2	2.07	2.06	1.73	1.82	1.74	1.65	1.78	1.72	1.66	1.72	1.48	1.50	1.84	1.80	1.36
	2.02	1.94	1.85	1.76	2.28	1.61	1.65	1.49	1.07	1.67	2.06	1.39	1.83	1.70	1.34
Direct Attainment	1.61	1.55	1.48	1.41	1.82	1.29	1.32	1.19	0.85	1.34	1.65	1.12	1.46	1.36	1.07
Indirect Attainment	2	2.8	2.7	3	3	2	2.5	2.2	3	3	2.3	3	3	3	3
	0.4	0.56	0.54	0.6	0.6	0.4	0.5	0.44	0.6	0.6	0.46	0.6	0.6	0.6	0.6
Overall Attainment															
Direct Attainment	1.61	1.55	1.48	1.41	1.82	1.29	1.32	1.19	0.85	1.34	1.65	1.12	1.46	1.36	1.07
Indirect Attainment	0.4	0.56	0.54	0.6	0.6	0.4	0.5	0.44	0.6	0.6	0.46	0.6	0.6	0.6	0.6
PO Attainment	2.01	2.11	2.02	2.01	2.42	1.69	1.82	1.63	1.45	1.94	2.11	1.72	2.06	1.96	1.67
Target	2	2	2	2	2	2	2	1.8	1.8	1.9	2	1.8	2	1.8	1.5

