

JSS MAHAVIDYAPEETHA JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED, MYSURU-06 CURRICULUM STRUCTURE

IV Semester Scheme of Studies- Diploma in Jewellery Design and Technology (C-21)

Sl.	Course Category	Course	Course Title	Ho	urs per W	eek	tal lact s per		Total contact hours per wook		CIE N	Marks	SEE N	Marks .	tal rks	Min Marks for Passing (including CIE)	ned	SGPA
No	/ Teaching Department	Code	Course Title	L	Т	P	To conf	Cre	Max	Min	Max	Min	Total Marks	Min N for Pa (inclt CI	Assigned Grade	SG		
					PRA	CTIC	AL COU	RSES										
1	JD	4441	Casting Technology(P)	0	2	4	6	4	60	24	40	16	100	40				
2	JD	4442	Jewellery Designing-II(P)	0	2	4	6	4	60	24	40	16	100	40				
3	JD	4443	Jewellery Making- II(P)	0	3	6	9	6	60	24	40	16	100	40				
4	JD	4444	Stone Setting- II(P)	0	3	6	9	6	60	24	40	16	100	40				
5	JD	4445	CAD (Advanced)(P)	0	2	4	6	4	60	24	40	16	100	40				
	AUDIT COURSES																	
6	AU/KA		Indian Constitution	2	0	0	2	2	50	20		1	50	20				
Total			02	12	24	38	26	350	140	200	80	550	220					

T-Theory P-Practical D-Drawing E-Elective BS—Basic Science ES-Engineering Science HS-Humanities & Social Science AU-Audit Course EG-English SC-Science Note:

- 1. Assigned Grade, Grade Point, SGPA and CGPA to be recorded in the Grade / Marks Card.
- 2. AU-Physical Activity-Students participation in the selected physical activity shall be monitored and the participation record shall be maintained by the respective Programme Coordinator (Head of Section)
- 3. Theory Course Semester End Examination(SEE) is conducted for 100 marks(3Hours Duration)
- 4. Practical course CIE is conducted for the 20 marks(3 Hours Duration) and SEE is conducted for the 100 marks (4 Hours Duration)

Programme Coordinator Principal

GOVERNMENT OF KARNATAKA DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED MYSURU

Programme: Jewellery Design and Technology

Course Code	4441	Semester	IV
Course Title	Casting Technology(P)	Course Group	Core
No. of Credits	4	Type of Course	Tutorial and Practice
Course	PC	Total Contact	6 Hrs. / Week
Category		Hours	96 Hrs. / Semester
Prerequisites	SSLC	Teaching Scheme	[L:T:P] = 0:2:4
CIE Marks	60	SEE Marks	40

RATIONALE:

Casting technology provides students to build the practical knowledge of casting and advanced casting techniques and useful for our students to work in the jewellery workshops.

1. COURSE SKILL SET:

After the completion of the study of this subject students should be able to

- 1. Understand different tool & equipments used for casting lab.
- 2. Acquire skills for the different process of casting techniques.
- 3. Understand the safety precaution in the Casting lab
- 4. Acquires skills of Application orientated tasks.

2. JOB ROLE

	SL.NO	LEVEL	JOB ROLES
1		2	Assistant craftsman in casting unit in jewellery workshops.

3. PREREQUISITES

STUDENT	Nil.
TEACHER	Five year experience in casting unit in jewellery workshop.

4. COURSE OUTCOMES

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

	Course Outcome
CO1	Use different tool & equipments used for Casting lab.
CO2	Acquire skills for the different process of casting techniques
CO3	Know the safety precaution in the Casting lab
CO4	Acquires skills of Application orientated tasks

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT	UNIT TITLE	TEACHING	DI	DISTRIBUTION		TOTAL
NO		HOURS	LE	EVELS (N	Marks)	
			R	U	A	
01	MASTER MODEL MAKING AND MOULD PACKING	24	10	20	20	50
02	VULCANIZING AND MOULD CUTTING	21	10	20	20	50
03	WAX MODEL PREPARATION AND INVESTMENT SLURRY PREPARATION AND POURING	24	10	20	20	50
04	DE-WAXING AND BURNOUT PROCESS AND INVESTMENT CASTING	27	10	20	20	50
	Total	96	40	80	80	200

6. INSTRUCTIONAL STRATEGY

These are sample strategies, which teacher can use to accelerate the attainment of the various course outcomes

- 1. Use of sign language for communication in classroom since most of students are hearing impaired.
- 2. Use of Audio-Visual aids like ppt, videos, Animation, E-books etc..
- 3. Hands on training providing for the students in pratical and tutorial clases through demonstration.
- 4. To attend interactive sessions, Group discussion, guest lectures, workshops, industrial visit, MCQ/Quiz, Assignment, open book test to facilitate students for learning.
- 5. Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
- 6. Instructors should expose students to explore User Interface thoroughly.
- 7. Emphasis should be given on designing skills.

7. DETAILS OF COURSE CONTENTS

The following topics / subtopics is to be taught and accessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets:

UNIT NO	TOPICS/SUBTOPICS	LEARNING OUTCOME (IN COGNITIVE DOMAIN)	HOURS T:P				
1	WASTER WODEL WARING AND WOULD TACKING						
	 Master model making Exercise on Preparation of rings, studs, statues and necklace units. mould packing different size and shapes of mould packing frames 	2. Able to prepare different types jewelry master models					
2	VULCANIZING AND MOULD CUTT	TING	21				
3	 Vulcanizing technique. Vulcanization of different mould packs (4, 5, 6, 7, 8layers) Mould cutting methods WAX MODEL PREPARATION AND PREPARATION AND POURING	 Demonstration of different types of equipments used for vulcanizing technique. Acquire the knowledge of vulcanization of different mould packs (4, 5, 6, 7, 8layers) according to given specification. Demonstration of different types of mould cutting methods and tools used for it. Acquire the knowledge of different mould cutting method. INVESTMENT SLURRY	24				
	 Wax injection and wax model preparation Different sprue techniques Investment slurry preparation Pouring and debublization. Wax setting 	 Demonstration of different types of tools and equipment used for wax injection and wax model preparation. Exercise on wax model preparation by using different sprue techniques Demonstration of different types of 					
		tools, equipments and investment powders used for investment slurry preparation. 4. Demonstration of pouring and debublization.					

4	DE-WAXING AND BURNOUT PROCESS AND INVEST CASTING	IMENT	27
	2. Investment casting. tools and equipment waxing and burn 2. Demonstration burn out protemperature 3. Demonstration tools and equipment casting and burn temperature	of steam de-waxing ocess at different of different types of uipments used for	
		TOTAL HRS	96

8. SUGGESTED PRACTICAL EXERCISES

Sl. No	Suggested Practical Exercises (should be similar in skills	Unit			L:P
	to the ones enlisted)	No	РО	СО	Hrs
1	Master model making	1	1,2,3,4,5,7	1	2:4
	Exercise on Preparation of rings, studs, statues and necklace units.	1	1,2,3,4,5,7	1	2:4
3	Mould packing	1	1,2,3,4,5,7	1	2:4
4	Different size and shapes of mould packing frames	1	1,2,3,4,5,7	1	2:4
5	Vulcanizing technique.	2	1,2,3,4,5,7	2	2:4
6	Vulcanization of different mould packs (4, 5, 6, 7, 8layers)	2	1,2,3,4,5,7	2	3:6
7	Mould cutting methods	2	1,2,3,4,5,7	2	2:4
8	Wax injection and wax model preparation	3	1,2,3,4,5,7	3	2:4
9	Different sprue techniques	3	1,2,3,4,5,7	3	2:4
10	Investment slurry preparation	3	1,2,3,4,5,7	3	2:4
11	Pouring and debublization.	3	1,2,3,4,5,7	3	2:4
12	De-waxing and burnout process.	4	1,2,3,4,5,7	4	6:12
13	Investment casting.	4	1,2,3,4,5,7	4	3:6

The suggested practical exercises specified above are demonstrated for the attainment of the competency. These practical activities can also be used for the student assessment in portfolio mode for awarding CIE marks. The lecturer can enhance the competency level of the students by sketching more practical exercises.

NOTES:

- 1. It is compulsory to prepare log book/record of exercises. It is also required to get each exercise recorded in logbook, checked and duly dated signed by the teacher
- 2 Student activities are compulsory and are also required to be performed and noted in logbook.
- 3. Student activity is compulsory and part of skill assessment. The activity enables student to explore the course, help student to demonstrate creativity & critical thinking.
- 4. Student activity report is compulsory part to be submitted at the time of practical ESE
- 5. Term work report is compulsory part to be submitted at the time of practical ESE.
- 6 Student activity and student activity reports must be uploaded to learning management system.
- 7. For CIE, students are to be assessed for Skills/competencies achieved.

9. MAPPING OF CO WITH PO

	COURSE OUTCOME	PO MAPPE D	EXPERIMENT LINKED	COGNITIVE LEVEL (R/	TUTORIAL & PRACTICAL SESSIONS IN			
CO-1	Master Model Making and Mould Packing	1,2,3,4,5,7	1-4	A	24			
CO-2	CO-2 Vulcanizing and Mould Cutting		5-7	A	21			
CO-3 Wax Model Preparation and Investment Slurry Preparation and Pouring		1,2,3,4,5,7	8-11	A	24			
CO-4 De-Waxing And Burnout Process and Investment Casting		1,2,3,4,5,7	12-13	A	27			
	Total							

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
Course		1	2	3	4	5	6	7
	CO-1	3	2	3	2	2	0	3
	CO-2	3	2	3	2	2	0	3
Casting Technology (P)	CO-3	3	2	3	2	2	0	3
	CO-4	3	2	3	2	2	0	3

Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped

11. SUGGESTED LEARNING RESOURCES:

Sl.	Author	Title of Books	Publication / Year
No			
1	Robert Hale	Jewellery concepts and	
		Technology (OPPI	1982
		UNTRACHT)	

12. SUGGESTED LINKS

https://www.youtube.com/watch?v=wuTwUGYIZOM https://www.youtube.com/watch?v=6ZjOaJIueb4

https://www.voutube.com/watch?v=67A8uRFU920

https://www.youtube.com/watch?v=aldrGTVm5ws

13. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS

Note: the following activities or similar activities for assessing CIE (IA)

SL. NO	ACTIVITY
1	Design 5 different pendent designs in creative way.
2	Design 5 different Earnings designs in creative way.

14. COURSE ASSESSMENT AND EVALUATION CHART

Assessme nt Methods	Types of Asso	essment	Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment
DIRECT ASSESSMENT	NAL EVALUA-	IA Test		Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
	CIE CONTINUOUS INTERNAL EVALUA- TION	CIE US INTER TION It &	STUDENTS	Portfolio	30	Portfolio and Activity Book	Specified CO by the Course Coordinator
		Assignment & Student activity		Activity	10		
DIR	Ō			Total CIE Marks	60		
	SEE SEMESTER END EXAMINA- TION Semester End Exam		End of the Course	40	Answer	All Co's	
	SEN EX.	Se En		Total	100	Scripts	
INDIRECT ASSESSMENT	Student Feedback End of Course Survey		ENTS	Middle of the Course	F	Feed Back Forms	
			STUDENTS	End of the Course			

15. COURSE ASSESSMENT SUMMARY

Sl.	Assessment	Time frame in	Duration	Max marks	Conversion
No		Semester			
1.	Portfolio	Entire Dura	tion	30	30
2	Skill Test-1 (Skill test l-Unit 1&2)	At the end of 8 ^h week	3 Hrs	20	Average of two skill tests 20
3	Skill Test-2 (Skill test 2 -Unit,3,4)	At the end of 15 th week	3 Hrs	20	
4	Student Activity	Beginning of 16 th week		10	10
5	Total Continu	ous Internal Evaluatio	n(CIE)Assessr	nent	60
6	Semester End Examination (SEE) Assessment conducted for 100 marks, finally reduced to 40 marks weightage		4 Hrs	100	40
		100			

Note:

- 1. SEE (Semester End Examination) is conducted for 100 Marks Practical courses for a time duration of 4 Hours.
- 2 Two CIE (written test), each of 20 marks for a time duration of 3 Hours shall be conducted. Also, one student activity or assignment of 10 marks shall be conducted.
- 3. 30 marks awarded for portfolio.
- 4. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

16. RUBRICS FOR ACTIVITY

Dimension		Student Score For 10 marks				
	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	
	2	4	6	8	10	
1. Organization	Has not included relevant info	Has included few relevant info	Has included some relevant info	Has included many relevant info	Has include all relevant info needed	10
2. Fulfil Team's Roles & Duties	Does not perform any duties assigned	Performs very little duties	Performs partial duties	Performs nearly all duties	Performs all duties of assigned team roles	6
3. Conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	8
4. Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	4
					Total Score	28
					Total Marks	7

17. REQUIREMENTS:

Sl. No.	Specification	Quantity
1.	Drawing table	30
2.	Jewellery Designing materials	-

Fourth Semester Examination, Model Question Paper – 2022

Casting Technology

Duration: 4 Hours] Subject Code: 4442 [Max. Marks: 100 Instruction: Answer both the questions. Each question carries 100 marks.

Qn. No.	Question	CL	COs	POs	Marks
1	Prepare the mould for the given master model according to following specification			1,2,3,4, 5,7	
	Specification: Number of layers: 6 Type of rubber: natural rubber	R / U/A	1		20
2	Vulcanizing the given rubber mould and mould cutting by any one of the method given below. a. Zig-Zag method b. Book type button method c. Open type button method d. Third piece method	R / U/A	2	1,2,3,4, 5,7	20
3	Prepare a wax tree by given rubber moulds	R / U/A	3	1,2,3,4, 5,7	30
4	Write the steps followed in the investment casting process	R / U/A	4	1,2,3,4, 5,7	20
5	Viva voce	R / U/A	1,2,3 ,4	1,2,3,4 ,5,7	10
	Total Marks				100

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed	
1	Mould packing	20
2	Mould cutting	20
3	Wax tree arrangement	30
4	Step in casting process	20
5	Viva Voce	10
	TOTAL	100

GOVERNMENT OF KARNATAKA DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED MYSURU

Programme: Jewellery Design and Technology

Course Code	4442	Semester	IV
Course Title	Jewellery Designing-II	Course Group	Core
No. of Credits	4	Type of Course	Lecture & Practice
	20		6 Hrs Per Week
Course Category	PC	Total Contact Hours	96 Hrs Per Semester
Prerequisites	Enthusiasm to learn the	Teaching Scheme	(L: T:P) = 0:1:2
	subject/Visualizing/Creativity		
CIE Marks	60	SEE Marks	40

RATIONALE:

Jewellery design help the learners to understand different type's designs based on rings, pendants, bangles and bracelet according to the present industrial meets

1. COURSE SKILL SET

The students shall be able to:

- 1. Apply Themes and Concepts in designing.
- 2. Study Theme and Concepts in different types Necklace.
- 3. Learn different types of Setting in Design.
- 4. Learn visualizing effects of different types of necklaces.

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	2	Assistant designer.

3. PREREQUISITES

STUDENT	Nil.
TEACHER	Five year experience in jewellery manual designing.

4. COURSE OUTCOMES:

At the end of course, students are able to

CO1	Acquire the knowledge of theme and concept of Necklaces.
CO2	Create different types Necklaces designs.
CO3	Know the importance of different types of settings.
CO4	Design Kundan, Modern and Bridal Necklaces.

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS		DISTRIBUTION LEVELS (Marks) R U A		TOTAL
01	DESIGNING OF					
	DIFFERENT TYPES					
	THEME BASED	24	10	20	20	50
	NECKLACE SETS.		10	20	20	30
02	DESIGNING PLANE					
	GOLD AND SOUTH					
	INDIAN CLOSE					
	SETTING					
	NECKLACES SETS	24	10	20	20	50
	(MODERN,	2-7	10	20	20	
	CONTEMPORARY					
	AND TRADITIONAL)					
03	DESIGNING OF					
	BRIDAL NECKLACE					
	SETS (MODERN,	24	10	20	20	50
	CONTEMPORARY	2 4	10	20	20	30
0.4	AND TRADITIONAL)	2.4				
04	DESIGNING OF	24	10	20	20	50
	KUNDAN NECKLACE SETS		10	20	20	50
	NECKLACE SETS	0.6	40	90	90	200
	Total	96	40	80	80	200

6. INSTRUCTIONAL STRATEGY

These are sample strategies, which teacher can use to accelerate the attainment of the various course outcomes

- 1. Use of sign language for communication in classroom since most of students are hearing impaired.
- 2. Use of Audio-Visual aids like ppt, videos, Animation, E-books etc..
- 3. Hands on training providing for the students in practical and tutorial classes through demonstration.
- 4. To attend interactive sessions, Group discussion, guest lectures, workshops, industrial visit, MCQ/Quiz, Assignment, open book test to facilitate students for learning.
- 5. Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
- 6. Instructors should expose students to explore User Interface thoroughly.
- 7. Emphasis should be given on designing skills.

7. DETAILS OF COURSE CONTENTS

The following topics/subtopics is to be taught and assessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets:

UNIT NO.	TOPICS/SUBTOPICS	LEARNING OUTCOME (IN COGNITIVE DOMAIN)	HOURS T:P
1	DESIGNING OF DIFFERENT TYPES	S THEME BASED NECKLACE SETS.	24
	 Peacock Concept. Butterfly Concept. Leaf Concept. Floral concept. 	Learn different types of designing necklace sets based on the concepts.	
2	DESIGNING PLANE GOLD AND SO NECKLACES SETS (MODERN, CON	UTH INDIAN CLOSE SETTING NTEMPORARY AND TRADITIONAL)	24
	 Modern plan gold necklace sets. Contemporary plan gold necklace sets. Traditional plan gold necklace sets. Modern south Indian close setting necklace sets. Contemporary south Indian close setting sets. Traditional south Indian close setting necklace sets. 	 3. Understand the concept of plane gold necklace sets with specific theme. 4. Learn different types of south Indian close setting necklace sets with specific theme. 	
3	DESIGNING OF BRIDAL NECKLAC CONTEMPORARY AND TRADITIO	,	24
	 Modern bridal necklace sets. Contemporary bridal necklace sets. Traditional bridal necklace sets. 	Learn different types of designing bridal necklace sets based o n theme	
4	DESIGNING OF KUNDAN NECKLA		24
	 Regular shape uncut kundan necklace sets. Irregular shape uncut kundan necklace sets. 	Acquire the knowledge of designing regular and irregular uncut kundan necklace set.	

8. LIST OF PRACTICAL EXERCISES:

The exercises/practical/experiments should be properly designed and implemented with an attempt to different types of skills leading to the achievement of the competency. Following is the list of exercises/practical/experiments for guidance.

	Suggested Practical Exercises (should be similar in skills	Unit			L:P
Sl No	to the ones enlisted)	No	РО	C O	Hrs
1	Peacock Concept.	1	1,3,4,7	1	2:4
2	Butterfly Concept.	1	1,3,4,7	1	2:4
3	Leaf Concept.	1	1,3,4,7	1	2:4
4	Floral concept.	1	1,3,4,7	1	2:4
5	Modern plan gold necklace sets.	2	1,3,4,7	2	1:2
6	Contemporary plan gold necklace sets.	2	1,3,4,7	2	2:4
7	Traditional plan gold necklace sets.	2	1,3,4,7	2	1:2
8	Modern south Indian close setting necklace sets.	2	1,3,4,7	2	2:4
9	Contemporary south Indian close setting sets.	2	1,3,4,7	2	1:2
10	Traditional south Indian close setting necklace sets.	2	1,3,4,7	2	1:2
11	Modern bridal necklace sets.	3	1,3,4,7	3	3:6
12	Contemporary bridal necklace sets.	3	1,3,4,7	3	2:4
13	Traditional bridal necklace sets.	3	1,3,4,7	3	3:6
14	Regular shape uncut kundan necklace sets.	4	1,3,4,7	4	4:8
15	Irregular shape uncut kundan necklace sets.	4	1,3,4,7	4	4:8

The suggested practical exercises specified above are demonstrated for the attainment of the competency. These practical activities can also be used for the student assessment in portfolio mode for awarding CIE marks. The lecturer can enhance the competency level of the students by sketching more practical exercises.

NOTES:

- 1 It is compulsory to prepare log book/record of exercises. It is also required to get each exercise recorded in logbook, checked and duly dated signed by the teacher
- 2 Student activities are compulsory and are also required to be performed and noted in logbook.
- 3 Student activity is compulsory and part of skill assessment. The activity enables

- student to explore the course, help student to demonstrate creativity & critical thinking.
- 4 Student activity report is compulsory part to be submitted at the time of practical ESE
- 5 Student activity and student activity reports must be uploaded to learning management system.
- 6 For CIE, students are to be assessed for Skills/competencies achieved.

9. MAPPING OF CO WITH PO

O C	COURSE OUTCOME	PO MAPPED	EXPERIMENT LINKED	COGNITIVE LEVEL (R/	TUTORIAL & PRACTICAL SESSIONS IN
CO-1	Acquire the knowledge of theme and conc Necklaces.	1,3,4,7	1-4	A	24
CO-2	Create different types Necklaces designs.	1,3,4,7	5-10	A	24
CO-3	Know the importance of different types of settings.	1,3,4,7	11-13	A	24
CO-4	Design Kundan, Modern and Bridal Necklaces.	1,3,4,7	14-15	A	24
	Total				96

10. LEVELS OF CO. AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
Course	COS	1	2	3	4	5	6	7
Jewellery Designing – II	CO-1	3	0	3	2	0	0	3
	CO-2	3	0	3	2	0	0	3
	CO-3	3	0	3	2	0	0	3
	CO-4	3	0	3	2	0	0	3

Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped

11.SUGGESTED LEARNING RESOURCES:

	THE COLDIED EDITE IN TO RESOURCES.					
Sl. No	Author	Title of Books	Publication / Year			
1	Robert Hale	Jewellery concepts and Technology (OPPI UNTRACHT)	1982			

12.SUGGESTED LINKS

- https://www.youtube.com/watch?v=wuTwUGYIZOM
- https://www.voutube.com/watch?v=6ZiOaJIueb4
- https://www.youtube.com/watch?v=67A8uRFU920
- https://www.voutube.com/watch?v=aldrGTVm5ws

13. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS:

Note: the following activities or similar activities for assessing CIE (IA)

SL.NO.	ACTIVIY
1	Design any five regular uncut kundan necklace sets
2	Design any five plan gold modern necklace sets
3	Design any five south Indian close setting traditional necklace sets

14. COURSE ASSESSMENT AND EVALUATION CHART

Assessme nt Methods	Types of Ass	essment	Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment
	CIE CONTINUOUS INTERNAL EVALUA- TION	IA Test		Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
DIRECT ASSESSMENT	CIE US INTER	nt & tivity	SLN.	Portfolio	30	Portfolio and	Specified CO by the
RECT ASS	ONTINO	Assignment & Student activity	STUDENTS	Activity	10	Activity Book	Course Coordinator
DIF	D D			Total CIE Marks	60		
	SEMESTER END EXAMINA-TION	Semester End Exam		End of the Course Total	40	Answer Scripts	All Co's
ECT	Student Feedback		SNTS	Middle of the Course	Feed Back Forms		ms
INDIRECT ASSESSMENT	End of Course Surve	ey	STUDENTS	End of the Course		cca Back Poll	

15. COURSE ASSESSMENT SUMMARY

Sl.	Assessment	Time frame in	Duration	Max marks	Conversion
No		Semester			
1.	Portfolio	Entire Dura	tion	30	30
2	Skill Test-1 (Skill test l-Unit 1&2)	At the end of 8 th week	3 Hrs	20	Average of two skill tests 20
3	Skill Test-2 (Skill test 2 -Unit,3,4)	At the end of 15 th week	3 Hrs	20	
4	Student Activity	At the beginning of 16 week		10	10
5	Total Continu	ous Internal Evaluatio	n(CIE)Assessr	nent	60
6	6 Semester End Examination (SEE) Assessment conducted for 100 marks, finally reduced to 40 marks weight age		4 Hrs	100	40
		TOTAL		l	100

Note:

CIE Skill test is conducted for 100 marks (3 Hours duration) as per scheme of evaluation and the obtained marks are scaled down to 20 marks.

SEE is conducted for 100 Marks (3 Hours duration) as per scheme of evaluation3. 30 marks awarded for portfolio.

1. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

16. RUBRICS FOR ACTIVITY

Dimension			Scale			Student Score For 10 marks
	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	
	2	4	6	8	10	
1. Organization	Has not included relevant info	Has included few relevant info	Has included some relevant info	Has included many relevant info	Has include all relevant info needed	10
2. Fulfil Team's Roles & Duties	Does not perform any duties assigned	Performs very little duties	Performs partial duties	Performs nearly all duties	Performs all duties of assigned team roles	6
3. Conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	8
4. Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	4
				•	Total Score	28
					Total Marks	7

17. REQUIREMENTS:

Sl. No.	Specification
1.	Drawing Table
2.	Jewellery Designing Materials

Fourth Semester Examination, Model Question Paper – 2022

Jewellery Designing – I

Duration: 4 Hours] Subject Code: 4432 [Max. Marks: 100 Instruction: Answer all the questions considering the internal choice in each question.

Qn. No.	Question	CL	COs	POs	Marks
1	Design a necklace based on leaf concept with specification and render it.	R / U/A	1	1,3,4,7	20
	Design a contemporary plan gold necklace with specification and render it. OR	R / U/A		1247	
2	Design a traditional south Indian close setting necklace with specification and render it.	K/ O/M	2	1,3,4,7	20
3	Design a modern bridal necklace set with specification and render it.	R / U/A	3	1,3,4,7	30
4	Design a uncut kundan necklace set with specification and render it.	R / U/A	4	1,3,4,7	30
Total Marks					

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed			
1	Concepts/Theme			
2	Designing			
3	Specification			
4	Rendering			
Note: Ab	Note: Above parameters observed for all the questions			

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Programme: Jewellery Design and Technology

Course Code	4443	Semester	IV
Course Title	Jewellery Making- II	Course Group	Core
No. of Credits	6	Type of Course	Tutorial and Practice
Course	PC	Total Contact	9 Hrs. / Week
Category	rC	Hours	144 Hrs. / Semester
Prerequisites	SSLC	Teaching Scheme	[L:T:P]=0:3:6
CIE Marks	60	SEE Marks	40

RATIONALE:

Jewellery making helps the learner to manufacture different types of necklaces by using different forms in metal work and able to create simple necklaces.(design forms in metal work ex. Filigree, wire, sheet, hallow forms, engraving, nakas and granules etc...)

1. COURSE SKILL SET:

After the completion of the study of this subject students should be able to

- 1. Manufacture simple pendants and chain based jewellery
- 2. Prepare design based on wire, sheets and granules. etc
- 3. Acquire skill to manufacture bridal collection necklaces
- 4. Learn steps involved in regular and occasional wearing jewellery

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	Junior Master craft man

3. PREREQUISITES

STUDENT	SSLC
TEACHER	Master in filing, sawing and finishing works

4. COURSE OUTCOMES

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

	Course Outcome					
CO1	Manufacture simple pendants and chain based jewellery					
CO2	Manufacture wire and sheet based necklaces					
CO3	Acquire ideas to manufacture bridal collection necklaces					
CO4	Learn steps involved in regular and occasional wearing jewellery					

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT	UNIT TITLE	TEACHING	DISTR	IBUTION		TOT
NO		HOURS	LEVEL	LS (Marks)		AL
			R	U	A	
01	Steps involved in manufacturing of simple pendants and chains.	33	10	20	20	50
02	Designs based on wires and sheets.	33	10	20	20	50
03	Basic ideas to develop bridal collection.	39	10	20	20	50
04	Basic requirements for regular and occasional wearing.	39	10	20	20	50
	Total	144	40	80	80	200

6. INSTRUCTIONAL STRATEGY

These are sample strategies, which teacher can use to accelerate the attainment of the various course outcomes

- 1. Use of sign language for communication in classroom since most of students are hearing impaired.
- 1. Use of Audio-Visual aids like ppt, videos, Animation, E-books etc..
- 2. Hands on training providing for the students in pratical and tutorial clases through demonstration.
- 3. To attend interactive sessions, Group discussion, guest lectures, workshops, industrial visit, MCQ/Quiz, Assignment, open book test to facilitate students for learning.
- 4. Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
- 5. Instructors should expose students to explore User Interface thoroughly.
- 6. Demonstration using visual/graphic content should be delivered. Emphasis should be given on working skills.

7. DETAILS OF COURSE CONTENTS

The following topics / subtopics is to be taught and accessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets:

UNIT NO.	TOPICS/SUBTOPICS (IN COGNITIVE DOMAIN) STEPS INVOLVED IN SIMPLE JEWELLERY CONSTRUCTION PENDANTS AND CHAINS. 1. Introduction, Design. 2. Tools and consumables. 1. Able to understand handling tools and parts preparation in		
	3. Parts preparation, Fabrication.4. Soldering, Pre-finishing.5. Repairs, Final finishing.6. Precautions.	jewellery making 2. Acquired the knowledge of jewellery fabrication and soldering techniques.	
2	 DESIGNS BASED ON WIRES AND SHE Necklace making by using Stamping design. Necklace making by using filigree. Necklace making by using wires and sheets. Practices in making step jhumky. Practices in making advance level pendants and rings. Introduction to wire and sheet based bangles. Introduction to filigree based bangles. Introduction to embossing based bangles. 	1. Learn different types of necklace designs based on wire and sheet 2. Acquire the knowledge of filigree based necklace making 3. Acquire the ideas to manufacture bangles based on wire, sheet, filigree and embossing etc	33
3	BASIC IDEAS TO DEVELOP BRIDAL (COLLECTION.	39
	Introduction to bridal jewellery. Introduction to traditional bridal collection jewellery. Introduction to contemporary bridal collection jewellery. Introduction to modern type bridal collection jewellery.	Understand the knowledge of contemporary and traditional based bridal jewelleries	

4	BASIC REQUIREMENTS FOR REGULA WEARING.	AR AND OCCASIONAL	39
	 Introduction to basic requirements for regular and occasional wearing jewellery. Importance of handling regular and occasional wearing jewellery. 	Learn the importance and requirements for jewellery occasional and regular wearing	
		Total	144

8. LIST OF PRACTICAL EXERCISES:

The exercises/practical/experiments should be properly designed and implemented with an attempt to different types of skills leading to the achievement of the competency. Following is the list of exercises/practical/experiments for guidance.

Sl No	Suggested Practical Exercises (should be similar in	Unit	DO.	CO	T:P
	skills to the ones enlisted)	No	PO	CO	Hrs
1	Introduction, Design.	1	1,2,3,4,7	1	2:4
2	Tools and consumables.	1	1,2,3,4,7	1	2:4
3	Parts preparation, Fabrication.	1	1,2,3,4,7	1	2:4
4	Soldering, Pre-finishing.	1	1,2,3,4,7	1	2:4
5	Repairs, Final finishing.	1	1,2,3,4,7	1	2:4
6	Precautions.	1	1,2,3,4,7	1	1:2
7	Necklace making by using Stamping design.	2	1,2,3,4,7	2	2:4
8	Necklace making by using filigree.	2	1,2,3,4,7	2	1:2
9	Necklace making by using wires and sheets.	2	1,2,3,4,7	2	2:4
10	Practices in making step jhumky.	2	1,2,3,4,7	2	1:2
11	Practices in making advance level pendants and rings.	2	1,2,3,4,7	2	1:2
12	Introduction to wire and sheet based bangles.	2	1,2,3,4,7	2	2:4
13	Introduction to filigree based bangles.	2	1,2,3,4,7	2	1:2
14	Introduction to embossing based bangles.	2	1,2,3,4,7	2	1:2
15	Introduction to bridal jewellery.	3	1,2,3,4,7	3	3:6
16	Introduction to traditional bridal collection jewellery.	3	1,2,3,4,7	3	3:6
17	Introduction to contemporary bridal collection jewellery.	3	1,2,3,4,7	3	4:8
18	Introduction to modern type bridal collection jewellery.	3	1,2,3,4,7	3	3:6

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Introduction to basic requirements for regular and occasional wearing jewellery.	4	1,2,3,4,7	4	7:14
Importance of handling regular and occasional wearing jewellery.	4	1,2,3,4,7	4	6:12

The suggested practical exercises specified above are demonstrated for the attainment of the competency. These practical activities can also be used for the student assessment in portfolio mode for awarding CIE marks. The lecturer can enhance the competency level of the students by sketching more practical exercises.

NOTES:

- It is compulsory to prepare log book/record of exercises. It is also required to get each exercise recorded in logbook, checked and duly dated signed by the teacher
- 2 Student activities are compulsory and are also required to be performed and noted in logbook.
- 3 Student activity is compulsory and part of skill assessment. The activity enables student to explore the course, help student to demonstrate creativity & critical thinking.
- 4 Student activity report is compulsory part to be submitted at the time of practical ESE
- 5 Term work report is compulsory part to be submitted at the time of practical ESE.
- 6 Student activity and student activity reports must be uploaded to Learning management system.
- 7 For CIE, students are to be assessed for Skills/competencies achieved.

9. MAPPING OF CO WITH PO

	COURSE OUTCOME	PO MAPPED	EXPERIMNT LINKE	COGNITIVE LEVEL (R	TUTORIAL & PRACTICAL SESSIONS IN
CO-1	STEPS INVOLVED IN MANUFACTURING OF SIMPLE PENDANTS AND CHAINS.	1,2,3,4,7	1-6	A	33
CO-2	DESIGNS BASED ON WIRES AND SHEETS.	1,2,3,4,7	7-14	A	33
CO-3	BASIC IDEAS TO DEVELOP BRIDAL COLLECTION.	1,2,3,4,7	15-18	A	39
CO-4	BASIC REQUIREMENTS FOR REGULAR AND OCCASIONAL WEARING.	1,2,3,4,7	19-20	A	39
	Total				144

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	CO's Programme Outcomes (POs)							
Course	COS	1	2	3	4	5	6	7	
	CO-1	3	3	2	2	0	0	3	
	CO-2	3	3	2	2	0	0	3	
Jewellery Making- II	CO-3	3	3	2	2	0	0	3	
	CO-4	3	3	2	2	0	0	3	

Levels: 3 – *Highly Mapped,* 2 – *Moderately Mapped,* 1- *Low Mapped and* 0 – *Not Mapped*

11. SUGGESTED LEARNING RESOURCES:

Sl.	Author	Title of Books	Publication / Year
No			
		Jewellery concepts and	1982
1	Robert Hale	Technology (OPPI UNTRACHT)	

SUGGESTED LINKS

https://www.youtube.com/watch?v=Sz9U_nS5aAQ https://www.youtube.com/watch?v=PSPXdMhH3nU

12. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS

Note: the following activities or similar activities for assessing CIE (IA)

SL. NO	ACTIVITY
1	Manufacturing details of the traditional type of necklaces
2 Manufacturing details of the contemporary type of necklaces	
3	Manufacturing details of the modern type of necklaces

13. COURSE ASSESSMENT AND EVALUATION CHART

Assessme nt Methods		Types of Asse	essment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment	
		CIE -CONTINUOUS INTERNAL EVALUA- TION	NUOUS NAL EVALUA-		A		Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
DIRECT ASSESSMENT			CIE -CONT. INTERI TION	CIE -CONT: INTERI TION	nt &	tivity	SNTS	Portfolio	30	Portfolio and
RECT ASS		I I T Assignment & Student activity		Student activity	STUDENTS	Activity	10	Activity Book	Course Coordinator	
DIR					Total CIE Marks	60				
		SEMESTER END EXAMINA- TION	Semester	End Exam		End of the Course Total	40	Answer Scripts	All Co's	
		<u>х</u> п								
INDIRECT	Student Feedback		ENTS	Middle of the Course	F	Feed Back Forms				
INDIRECT	End	of Course Surve	у		STUDENTS	End of the Course		Feed Back Forms		

14. COURSE ASSESSMENT SUMMARY

Sl.	Assessment	Time frame in	Duration	Max marks	Conversion
No		Semester			
1.	Portfolio	Entire Duration		30	30
2	Skill Test-1 (Skill test l-Unit 1&2)	At the end of 8 th week	3 Hrs	20	Average of two skill tests 20
3	Skill Test-2 (Skill test 2 -Unit,3,4)	At the end of 15 th week	3 Hrs	20	
4	Student Activity	At the beginning of 16 th week		10	10
5	Total Continu	ous Internal Evaluatio	n(CIE)Assessn	nent	60
6	Semester End Exa Assess conducted for 100 mar 40 marks w	4 Hrs	100	40	
		TOTAL			100

Note:

- 1. SEE (Semester End Examination) is conducted for 100 Marks Practical courses for a time duration of 4 Hours.
- 2 Two CIE (written test), each of 20 marks for a time duration of 3 Hours shall be conducted. Also, one student activity or assignment of 10 marks shall be conducted.
- 3. 30 marks awarded for portfolio.
- 4. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

15. RUBRICS FOR ACTIVITY

Dimension			Scale			Student Score For 10 marks
	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	
	2	4	6	8	10	
1. Organization	Has not included relevant info	Has included few relevant info	Has included some relevant info	Has included many relevant info	Has include all relevant info needed	10
2. Fulfil Team's Roles & Duties	Does not perform any duties assigned	Performs very little duties	Performs partial duties	Performs nearly all duties	Performs all duties of assigned team roles	6
3. Conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	8
4. Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	4
				•	Total Score	28
					Total Marks	7

16. REQUIREMENTS:

Sl. No.	Specification
1.	Work bench
2.	General goldsmithing tools, equipments and consumables
3.	Table lamp

Fourth Semester Examination, Model Question Paper – 2022 Jewellery Making- II

Duration: 4 Hours] Subject Code: 4443 [Max. Marks: 100 Instruction: Answer all the questions considering the internal choice in each question.

Qn. No.	Question	CL	COs	POs	Marks
1	Design a simple round link chain and manufacture the same by using sterling silver as per the specification given. (1mm thickness of the wire, length of round link chain 16 inches)	R / U/A	1	1,2,3,4,7	35
2	Design filigree based necklace and manufacture the same by using sterling silver.	R / U/A	2	1,2,3,4,7	35
3	Design the following category necklace and write the detail manufacturing technique. (Traditional, Contemporary, Modern)	R / U/A	3	1,2,3,4,7	10
4	Write short note on handling regular and occasional wearing jewelley)	R / U/A	4	1,2,3,4,7	10
5	Viva voce	R / U/A	1,2,3,4	1,2,3,4,7	10
	Total Marks				100

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed	Marks Allotted
1	Chain making	35
2	Necklace making	35
3	Designing	10
4	Writing Procedure	10
	Viva voce	10
	Total	100

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Programme: Jewellery Design and Technology

Course Code	4444	Semester	IV
Course Name	Stone Setting- II	Course Group	Core
No. of Credits	6	Type of Course	Lecture + Practice
Course Category	Core	Total Contact	9 Hrs. / Week
		Hours	144 Hrs. / Semester
Prerequisites	Tutorial and Practical	Teaching Scheme	[L:T:P] = 0:3:6
CIE Marks	60	SEE Marks	40

RATIONALE:

Stone setting helps the learner to introduction to other stone setting and able to do setting of stones based on share prong, pave and channel setting and understands the safety precaution in the jewellery workshop

1. COURSE SKILL SET

- 1. Understand different tool & equipments used for stone setting.
- 2. Acquire skills for the Share prong, Pave and Channel settings techniques.
- 3. Understand the safety precaution in the Jewellery lab.
- 4. Acquires skills of Application orientated tasks.

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	Assistant stone setter in jewellery workshop

3. PREREQUISITES

STUDENT	SSLC
TEACHER	Experience in Jewellery stone setting Process

4. COURSE OUTCOMES

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

		Course Outcome
	CO1	Use different tool & equipments used for stone setting lab.
8.	CO2	Acquire skills for the different types of stone setting techniques
9.	CO3	Know the safety precaution in the stone setting lab
10	.CO4	Acquires skills of Application orientated tasks

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT	UNIT TITLE	TEACHING	DISTRIBUTION			TOTAL
NO		HOURS	LEVEI	LS (Marks)		
			R	U	A	
01	Procedure for share Prong setting.	39	10	20	20	50
02	Procedure for Channel setting.	36	10	20	20	50
03	Procedure for Pave setting.	42	10	20	20	50
04	Introduction to other setting.	27	10	20	20	50
	Total	144	40	80	80	200

6. INSTRUCTIONAL STRATEGY

These are sample strategies, which teacher can use to accelerate the attainment of the various course outcomes

- 1. Use of sign language for communication in classroom since most of students are hearing impaired.
- 2. Use of Audio-Visual aids like ppt, videos, Animation, E-books etc...
- 3. Hands on training providing for the students in practical and tutorial classes through demonstration.
- 4. To attend interactive sessions, Group discussion, guest lectures, workshops, industrial visit, MCQ/Quiz, Assignment, open book test to facilitate students for learning.
- 5. Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
- 6. Instructors should expose students to explore User Interface thoroughly.
- 7. Demonstration using visual/graphic content should be delivered. Emphasis should be given on working skills.

7. DETAILS OF COURSE CONTENTS

The following topics / subtopics is to be taught and accessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets:

UNIT NO.	TOPICS/SUBTOPICS	LEARNING OUTCOME (IN COGNITIVE DOMAIN)	HOURS T:P			
1	PROCEDURE FOR SHARE PRONG SETTING.					
	 Setting dependent Prongs. Setting Prong – Bezel combination. Preparation. Procedure of setting stones. Procedure of setting fancy shaped stones and quality control. 	 Acquire the knowledge of stone setting Learn about share prong stone setting 				
2	PROCEDURE FOR CHANNEL SETTI	NG.	36			
3	 Preparation. Layout. Procedure for square shaped or baguette stones. Quality control PROCEDURE FOR PAVE SETTING. Preparation. Layout and graining system. Procedure for precutting in master. Procedure for working on cast independent grain setting. Quality control. 	 Acquire the knowledge of procedure for channel stone setting Learn importance on quality control of channel stone setting Understand the concept of pave stone setting in jewellery manufacturing process Able to do pave stone setting in jewelries 	42			
4	INTRODUCTION TO OTHER SETTING	J.	27			
	 Wax setting. Kundan setting. Invisible setting. Close setting 	Learn importance about different types of stone setting used in jewellery manufacturing techniques.				
		TOTAL	144			

8. SUGGESTED PRACTICAL EXERCISES

Sl No	Suggested Practical Exercises (should be similar in	Unit	5.0	GO.	T:P
	skills to the ones enlisted)	No	PO	CO	Hrs
1	Setting dependent Prongs.	1	1,2,3,4,7	1	3:6
2	Setting Prong – Bezel combination.	1	1,2,3,4,7	1	3:6
3	Preparation.	1	1,2,3,4,7	1	2:4
4	Procedure of setting stones.	1	1,2,3,4,7	1	2:4
5	Procedure of setting fancy shaped stones and quality control.	1	1,2,3,4,7	1	3:6
6	Preparation.	2	1,2,3,4,7	2	2:4
7	Layout.	2	1,2,3,4,7	2	2:4
8	Procedure for square shaped or baguette stones.	2	1,2,3,4,7	2	5:10
9	Quality control		1,2,3,4,7	2	3:6
10	Preparation.	3	1,2,3,4,7	3	2:4
11	Layout and graining system.	3	1,2,3,4,7	3	3:6
12	Procedure for precutting in master.	3	1,2,3,4,7	3	4:8
13	Procedure for working on cast independent grain setting.	3	1,2,3,4,7	3	3:6
14	Quality control.	3	1,2,3,4,7	3	2:4
15	Wax setting.	4	1,2,3,4,7	4	2:4
16	Kundan setting.	4	1,2,3,4,7	4	2:4
17	Invisible setting.	4	1,2,3,4,7	4	2:4
18	Close setting	4	1,2,3,4,7	4	3:6

The suggested practical exercises specified above are demonstrated for the attainment of the competency. These practical activities can also be used for the student assessment in portfolio mode for awarding CIE marks. The lecturer can enhance the competency level of the students by sketching more practical exercises.

NOTES:

- 1 It is compulsory to prepare log book/record of exercises. It is also required to get each exercise recorded in logbook, checked and duly dated signed by the teacher
- 2 Student activities are compulsory and are also required to be performed and noted in logbook.
- 3 Student activity is compulsory and part of skill assessment. The activity enables student to explore the course, help student to demonstrate creativity & critical thinking.
- 4 Student activity report is compulsory part to be submitted at the time of practical ESE
- 5 Term work report is compulsory part to be submitted at the time of practical ESE.

- Student activity and student activity reports must be uploaded to learning management system.
- 7 For CIE, students are to be assessed for Skills/competencies achieved.

9. MAPPING OF CO WITH PO

	COURSE OUTCOME	PO MAPPED	EXPERIMENT LINKE	COGNITIVE LEVEL (R	TUTORIAL & PRACTICAL SESSIONS IN
CO-1	Procedure for share Prong setting.	1,2,3,4,7	1-5	A	39
CO-2	Procedure for Channel setting.	1,2,3,4,7	6-9	A	36
со-3	Procedure for Pave setting.	1,2,3,4,7	10-14	A	42
CO-4	Introduction to other setting.	1,2,3,4,7	15-18	A	27
	144				

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)									
	COS	1	2	3	4	5	6	7			
	CO-1	3	3	2	2	0	0	3			
	CO-2	3	3	2	2	0	0	3			
Stone Setting- II	CO-3	3	3	2	2	0	0	3			
	CO-4	3	3	2	2	0	0	3			

Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1 - Low Mapped and 0 – Not Mapped

11. SUGGESTED LEARNING RESOURCES:

Sl.	Author	Title of Books	Publication / Year
No			
1	Robert Hale	Jewellery concepts and Technology (OPPI	1982
		UNTRACHT)	

12. SUGGESTED LINKS

https://www.youtube.com/watch?v=Sz9U_nS5aAQ https://www.youtube.com/watch?v=PSPXdMhH3nU

13. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS

Note: the following activities or similar activities for assessing CIE (IA)

SL. NO	ACTIVITY
1	Collect the information on share prong stone setting in jewellery manufacturing techniques
2	Collect the information on pave stone setting in jewellery manufacturing techniques
3	Collect the information on wax setting, kundan setting, and close setting in gem stones jewellery manufacturing techniques
4	Collect the information on channel setting in jewellery manufacturing techniques

14. COURSE ASSESSMENT AND EVALUATION CHART

Assessme nt Methods	Types of Assessment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment		
	CIE -CONTINUOUS INTERNAL EVALUA-			[A est		Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
DIRECT ASSESSMENT	SEE CIE -CONTI END TION TION Semester Assignment & End Exam Student activity STUDENTS	nt &	nt & tivity	STUDENTS	Portfolio	30	Portfolio and Activity Book	Specified CO by the Course Coordinator	
RECT ASS		Assignme	Student ac		Activity	10			
DIR			Total CIE Marks	60					
			End of the Course	40	Answer	All Co's			
		SEN EX.	Se	En		Total	100	Scripts	
ECT (MENT	Student Feedback End of Course Survey		ENTS	Middle of the Course	Feed Back Forms				
INDIRECT ASSESSMENT			STUDENTS	End of the Course					

15. COURSE ASSESSMENT SUMMARY

Sl.	Assessment	Time frame in	Duration	Max marks	Conversion
No		Semester			
1.	Portfolio	Entire Dura	tion	30	30
2	Skill Test-1 (Skill test l-Unit 1&2)	At the end of 8 th week	3 Hrs	20	Average of two skill tests 20
3	Skill Test-2 (Skill test 2 -Unit,3,4)	At the end of 15 th week	3 Hrs	20	
4	Student Activity	At the beginning of 16 th week		10	10
5	Total Continu	ous Internal Evaluatio	n(CIE)Assessr	nent	60
6	Semester End Examination (SEE) Assessment conducted for 100 marks, finally reduced to 40 marks weightage		4 Hrs	100	40
		100			

Note:

- 1. SEE (Semester End Examination) is conducted for 100 Marks Practical courses for a time duration of 4 Hours.
- 2 Two CIE (written test), each of 20 marks for a time duration of 3 Hours shall be conducted. Also, one student activity or assignment of 10 marks shall be conducted.
- 3. 30 marks awarded for portfolio.
- 4. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

16. RUBRICS FOR ACTIVITY

Dimension			Scale			Student Score For 10 marks
	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	
	2	4	6	8	10	
1. Organization	Has not included relevant info	Has included few relevant info	Has included some relevant info	Has included many relevant info	Has include all relevant info needed	10
2. Fulfill Team's Roles & Duties	Does not perform any duties assigned	Performs very little duties	Performs partial duties	Performs nearly all duties	Performs all duties of assigned team roles	6
3. Conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	8
4. Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	4
					Total Score	28
					Total Marks	7

17. REQUIREMENTS:

Sl. No.	Specification
1.	Work bench
2.	General stone setting tools, equipments and consumables
3.	Table lamp

Fourth Semester Examination, Model Question Paper – 2022 Stone Setting- II

Duration: 4 Hours] Subject Code: 4444 [Max. Marks: 100 Instruction:. Answer all the questions considering the internal choice in each question.

Qn. No.	Question	CL	COs	POs	Mark s
1	Design a share prong setting based simple pendent and manufacture the same using sterling silver as per the specification given below 2mm stones, 5 number	R / U/A	1	1,2,3,4,7	25
2	Design a channel setting based simple pendent and manufacture the same using sterling silver as per the specification given below 2mm stones, 5 number	R / U/A	2	1,2,3,4,7	25
3	Design a pave setting based simple pendent and manufacture the same using sterling silver as per the specification given below 2mm stones, 5 number	R / U/A	3	1,2,3,4,7	20
4	Write the steps involved in wax stone setting	R / U/A	4	1,2,3,4,7	20
5	Viva voce	R / U/A	1,2, 3,4	1,2,3,4,7	10
	Total Marks				100

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed	Marks Allotted
1	Share prong stone setting	25
2	Channel setting	25
3	Pave setting	20
4	Steps in other forms stone setting	20
5	Viva voce	10
	Total	100

GOVERNMENT OF KARNATAKA DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED (AUTONOMOUS), MYSURU Programme: Jewellery Design and Technology

Course Code	4445	Semester	IV
Course Name	CAD (Advanced)	Course Group	Core
No. of Credits	4	Type of Course	Lecture + Practice
Course Category	Core	Total Contact	6 Hrs. / Week
		Hours	96 Hrs. / Semester
Prerequisites	Tutorial and Practical	Teaching Scheme	[L:T:P] = 0:2:4
CIE Marks	60	SEE Marks	40

RATIONALE:

CAD (Advanced) helps the learner to gain more knowledge on designing the jewelleries. Using CAD we can manufacture more number of products within a short period of time. This presently has scope in industries. This course helps the students to prepare their own designs and also with respect to the company needs.

1. COURSE SKILL SET

- 1. Understand different tool & equipments used for stone setting.
- 2. Acquire skills for the Share prong, Pave and Channel settings techniques.
- 3. Understand the safety precaution in the Jewellery lab.
- 4. Acquires skills of Application orientated tasks.

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	CAD Designer

3. PREREQUISITES

STUDENT	SSLC
TEACHER	1 year training in CAD

4. COURSE OUTCOMES

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

	Course Outcome		
CO1	Design with parameters by using rhino		
11. ^{CO2}	Create Different Type of Shape, size & linking.		
12. ^{CO3}	Produce different Designs and stone setting with parameters.		
13. ^{CO4}	Create an Own designs.		

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)		TOTAL	
			R	U	A	
01	Design with parameters by using rhino	24	10	20	20	50
02	Create Different Type of Shape, size & linking.	21	10	20	20	50
03	Produce different Designs and stone setting with parameters.	27	10	20	20	50
04	Create an Own designs.	24	10	20	20	50
	Total	96	40	80	80	200

6. INSTRUCTIONAL STRATEGY

These are sample strategies, which teacher can use to accelerate the attainment of the various course outcomes

- 1. Use of sign language for communication in classroom since most of students are hearing impaired.
- 2. Use of Audio-Visual aids like ppt, videos, Animation, E-books etc...
- 3. Hands on training providing for the students in practical and tutorial classes through demonstration.
- 4. To attend interactive sessions, Group discussion, guest lectures, workshops, industrial visit, MCQ/Quiz, Assignment, open book test to facilitate students for learning.
- 5. Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
- 6. Instructors should expose students to explore User Interface thoroughly.
- 7. Demonstration using visual/graphic content should be delivered. Emphasis should be given on working skills.

7. DETAILS OF COURSE CONTENTS

The following topics / subtopics is to be taught and accessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets:

UNIT NO.	TOPICS/SUBTOPICS	LEARNING OUTCOME (IN COGNITIVE DOMAIN)	HOURS T:P
1	MORE COMPLEX PROJECTS WITH PARA TOUCHING & MAKING OBJECTS PLANA & CREATING 2-D DESIGN WITH PARAME	R, CUSTOM TOOLBAR COLLECTION	24
	Twisted Wire Look - Band Ring, Enameled Band - Flow along Surface Command, Octagon Ring - Custom Construction Planes and Height field Bitmap Texture, Model of a Flower Component - Cage Edit Command, Ring Band with Pave and Flush Set Round Faceted Stones, Making Objects Planar — Project to C-Plane — Set View (Set XYZ axis), Creating a Custom Toolbar Collection - Customizing Workspace, Necklace Set (stud and drops), Pendent, Bangle, Bracelet, Ring	rhino software 2. Learn about dimensions and viewpoints in 3D CAD designs	
2	DEFERENT TYPES OF STONE SHAPE	ES AND SIZE, LINKING	21
	Round, Pear, Oval, Emerald Cut, Trillion, Marquise, Princess, Heart, Cushion, Chain linking, door linking, box clasp, etc		
3	PRODUCT PARAMETERS AND SIZE SETTING.	& DIFFERENT TYPES STONE	27
	Necklace sizes, Ring sizes, Bangle size, Bracelet sizes, Flush setting, Bezel setting, Prong setting, Share prong, Pave setting, Channel setting, Tension setting, Micro pave setting	stone setting,	
4	DEVELOPMENT OF PRODUCTS (PARADESIGN AND ASSIGNMENT.	AMETER) & CREATING OF OWN	24
	Necklace Design Pendent Design Earring Design Ring Design	Able to create own necklace, pendent, earring and ring CAD 3D designs using rhino software	
	_	TOTAL	96

8. SUGGESTED PRACTICAL EXERCISES

Sl No	Suggested Practical Exercises (should be similar in	Unit			T:P
	skills to the ones enlisted)	No	PO	CO	Hrs
1	Twisted Wire Look - Band Ring, Enameled Band	1	1,3,4,5,7	1	1:2
2	Flow along Surface Command, Octagon Ring - Custom Construction Planes	1	1,3,4,5,7	1	1:2
3	Height field Bitmap Texture, Model of a Flower Component - Cage	1	1,3,4,5,7	1	1:2
4	Edit Command, Ring Band with Pave	1	1,3,4,5,7	1	1:2
5	Flush Set Round Faceted Stones, Making Objects Planar	1	1,3,4,5,7	1	1:2
6	Project to C-Plane – Set View (Set XYZ axis)	1	1,3,4,5,7	1	1:2
7	Creating a Custom Toolbar Collection - Customizing	1	1,3,4,5,7	1	1:2
8	Toolbar Collection - Customizing Workspace, Necklace Set (stud and drops), Pendent, Bangle, Bracelet, Ring	1	1,3,4,5,7	1	1:2
9	Round and Pear shape	2	1,3,4,5,7	2	2:4
10	Oval and Emerald Cut shape	2	1,3,4,5,7	2	1:2
11	Trillion, Marquise and Princess,	2	1,3,4,5,7	2	1:2
12	Heart, Cushion and Chain linking,	2	1,3,4,5,7	2	2:4
13	door linking, box clasp, etc	2	1,3,4,5,7	2	1:2
14	Necklace sizes, Ring sizes,	3	1,3,4,5,7	3	2:4
15	Bangle size, Bracelet sizes,	3	1,3,4,5,7	3	2:4
16	Flush setting, Bezel setting, Prong setting,	3	1,3,4,5,7	3	2:4
17	Share prong, Pave setting, Channel setting,	3	1,3,4,5,7	3	2:4
18	Tension setting, Micro pave setting	3	1,3,4,5,7	3	1:2
19	Necklace Design	4	1,3,4,5,7	4	2:4
20	Pendent Design	4	1,3,4,5,7	4	2:4
21	Earring Design	4	1,3,4,5,7	4	2:4
22	Ring Design	4	1,3,4,5,7	4	2:4

The suggested practical exercises specified above are demonstrated for the attainment of the competency. These practical activities can also be used for the student assessment in portfolio mode for awarding CIE marks. The lecturer can enhance the competency level of the students by sketching more practical exercises.

NOTES:

- It is compulsory to prepare log book/record of exercises. It is also required to get each exercise recorded in logbook, checked and duly dated signed by the teacher
- 2 Student activities are compulsory and are also required to be performed and noted in logbook.
- 3 Student activity is compulsory and part of skill assessment. The activity enables student to explore the course, help student to demonstrate creativity & critical thinking.
- 4 Student activity report is compulsory part to be submitted at the time of practical ESE
- 5 Term work report is compulsory part to be submitted at the time of practical ESE.
- 6 Student activity and student activity reports must be uploaded to learning management system.
- 7 For CIE, students are to be assessed for Skills/competencies achieved.

9. MAPPING OF CO WITH PO

	COURSE OUTCOME	PO MAPPED	EXPERIMENT LINKE	COGNITIVE LEVEL (R	TUTORIAL & PRACTICAL SESSIONS IN		
CO-1	Design with parameters by using rhino	1,3,4,5,7	1-8	A	24		
	Create Different Type of Shape, size & linking.	1,3,4,5,7	9-13	A	21		
	Produce different Designs and stone setting with parameters.	1,3,4,5,7	14-18	A	27		
CO-4	Create an Own designs.	1,3,4,5,7	19-22	A	24		
	Total						

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
Course	COS	1	2	3	4	5	6	7
CAD (Advanced)	CO-1	3	0	3	2	2	0	3
	CO-2	3	0	3	2	2	0	3
	CO-3	3	0	3	2	2	0	3
	CO-4	3	0	3	2	2	0	3

Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped

11. SUGGESTED LEARNING RESOURCES:

S1.	Author	Title of Books	Publication / Year
No			
1	Rajesh Hongal	Basics of Computers and Application	1995
2	Buscaglia	Rhino for Jewelry	2000

SUGGESTED LINKS

https://www.youtube.com/watch?v=Sz9U_nS5aAQ https://www.youtube.com/watch?v=PSPXdMhH3nU

12. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS

Note: the following activities or similar activities for assessing CIE (IA)

SL. NO	ACTIVITY
1	Create any five 3D pendant designs using rhino software
2	Create any five 3D ring designs using rhino software
3	Create any five 3D necklace designs using rhino software
4	Create any five 3D earring designs using rhino software

13. COURSE ASSESSMENT AND EVALUATION CHART

Assessme nt Methods	Types of Assessment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment		
		-CONTINUOUS INTERNAL EVALUA- TION		(A l'est		Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
DIRECT ASSESSMENT	CIE	-CONT INTER TION	nt &	tivity	SNTS	Portfolio	30	Portfolio and	Specified CO by the
RECT ASS	ECT ASS	C -C III T T Assignment & Student activity		STUDENTS	Activity	10	Activity Book	Course Coordinator	
DIR						Total CIE Marks	60		
	SEE	SEMESTER END EXAMINA- TION	Semester	End Exam		End of the Course Total	40	Answer Scripts	All Co's
INDIRECT	Student Feedback				STUDENTS	Middle of the Course	F	Feed Back Forms	
INDIRECT	End	of Course Surve	у		STUD	End of the Course		Feed Back Forms	

14. COURSE ASSESSMENT SUMMARY

Sl.	Assessment	Time frame in	Duration	Max marks	Conversion
No		Semester			
1.	Portfolio	Entire Dura	tion	30	30
2	Skill Test-1 (Skill test l-Unit 1&2)	At the end of 8 th week	3 Hrs	20	Average of two skill tests 20
3	Skill Test-2 (Skill test 2 -Unit,3,4)	At the end of 15 th week	3 Hrs	20	
4	Student Activity	At the beginning of 16 th week		10	10
5	Total Continu	ous Internal Evaluatio	n(CIE)Assessr	nent	60
6	Semester End Exa Assess conducted for 100 mar 40 marks w	4 Hrs	100	40	
		100			

Note:

- 1. SEE (Semester End Examination) is conducted for 100 Marks Practical courses for a time duration of 4 Hours.
- 2 Two CIE (written test), each of 20 marks for a time duration of 3 Hours shall be conducted. Also, one student activity or assignment of 10 marks shall be conducted.
- 3. 30 marks awarded for portfolio.
- 4. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

15. RUBRICS FOR ACTIVITY

Dimension		Scale				
	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	
	2	4	6	8	10	
1. Organization	Has not included relevant info	Has included few relevant info	Has included some relevant info	Has included many relevant info	Has include all relevant info needed	10
2. Fulfill Team's Roles & Duties	Does not perform any duties assigned	Performs very little duties	Performs partial duties	Performs nearly all duties	Performs all duties of assigned team roles	6
3. Conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	8
4. Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	4
					Total Score	28
					Total Marks	7

16. REQUIREMENTS:

Sl. No.	Specification
1.	Rhino software
2.	Systems
3.	System tables

Fourth Semester Examination, Model Question Paper – 2022

CAD (Advanced)

Duration: 4 Hours]
Subject Code: 4445
[Max. Marks: 100

Instruction: Answer all the questions considering the internal choice in each question.

Qn. No.	Question	CL	COs	POs	Marks
1	Create any one design with 2d design parameter with specification.	R / U/A	1	1,3,4,5,7	20
2	For a given design set Emerald cut stone OR For a given design set Round stone	R / U/A	2	1,3,4,5,7	20
3	Design any one of the following ornament using Rhino software and set prong setting of stone for the same design. OR Design any one of the following ornament using Rhino software and set Bezel setting of stone for the same design.	R / U/A	3	1,3,4,5,7	25
4	Design the given Necklace in CAD using Rhino 4.0 software OR Design the given Pendent in CAD using Rhino 4.0 software	R / U/A	4	1,3,4,5,7	25
5	Viva Voce	R / U/A	1,2,3,4	1,3,4,5,7	10
Total Marks					

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed	Marks			
51. 140.		Allotted			
1	2D Designing	20			
2	Creating Stones	20			
3	Stone Setting	25			
4	3D Designing	25			
5	Viva voce	10			
	Total 1				

GOVERNMENT OF KARNATAKA DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED (AUTONOMOUS), MYSURU Programme: Jewellery Design and Technology

Course Code	4446	Semester	IV
Course Name	Indian Constitution	Course Group	Audit
No. of Credits	2	Type of Course	Lecture
Course Category	Audit	Total Contact	2 Hrs. / Week
		Hours	32 Hrs. / Semester
Prerequisites	First Year Diploma	Teaching Scheme	[L:T:P] = 2:0:0
CIE Marks	50	SEE Marks	NIL

1. COURSE OUTCOMES:

At the end of the Course, the student will be able to:

CO-01	CO1	Understand Preamble, salient features and importance of Indian Constitution.
CO-02	CO2	Understand Fundamental rights, duties and Directive principles of state policy.
CO-03	CO3	Understand Parliamentary system of governance, Structure, Functions, Power of Central, state governments (Legislative, Executive) and Judiciary.
CO-04	CO4	Understand Panchayat Raj Institutions and Local self-governments, UPSC, KPSC, NHRC, Status of women, RTE etc.

2. COURSE CONTENT

Week	СО	Detailed Course Content	Contact Hours			
1	1	Introduction to constitution of India-Formation and Composition of the Constituent Assembly-Salient features of the Constitution-Preamble to the Indian Constitution				
2	1,2	Fundamental Rights- Definition, The right to equality, The right to freedom, The right against exploitation, The right to freedom of religion.				
3	1,2	Cultural and educational rights and The right to constitutional remedies. Fundamental Duties, Directive principles of state policy.				
4	1,3	Parliamentary system of governance- Structure of Parliament- Lok Sabha and Rajya Sabha. Functions of parliament- Legislative, Executive, Financial Function Powers of Lok Sabha and Rajya Sabha.				
5	1,3	Procedure followed in parliament in making law, Annual financial statement (Budget) – procedure in parliament with respect to estimates, Appropriationbill, Supplementary, additional grants, Vote on account, votes on credit and exception grant, special provisions, rules of procedure.	2			
6	1,3	Structure of union executive, Power and position of President. Vice President, Prime minister and council of ministers.	2			
7	1,3	Structure of the judiciary: Jurisdiction and functions of Supreme Court, highcourt, and subordinate courts.				
8	1,3	Federalism in the Indian constitution- Division of Powers: Union list, State list and concurrent list. Structure of state legislation, Legislative assembly and Legislative council.	2			

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		Functions of state legislature, Structure of state executive-Powers and			
9	1,3	positions of Governor, Speaker, Deputy Speaker, Chief Minister and	4		
		council of minister.			
		Local self-government- meaning-Three tier system, Village Panchayat-Taluk	_		
10	4	panchayat Zilla panchayat, Local bodies-Municipalities and Corporations, Bruhath Mahanagara Palike, Functions of Election commission, UPSC,	2		
		KPSC.			
		Amendment of the constitution, Human Rights-Definition-constitutional			
1.1	4	provisions-right to life and liberty-Human Rights of Women-	2		
11	4	Discriminationagainst women	2		
		steps that are to be taken to eliminate discrimination against women			
		inEducation, employment, health care, Economic and social life,			
		Status of Women in India - Women in rural areas, Constitutional			
12	4	Safeguards - Dowry Prohibition act 1961- Domestic violence act 2005-	2		
12	'	Sexual harassment at work place bill 2006.	~		
		Human Rights of Children Who is a child-list the Rights of the Child-			
		Right to education, Protection of Children from Sexual Offences Act (POCSO)-2012-			
		National Human Rights Commission Constitution- Powers and function of			
		theCommission-Employee rights- Provisions made, Contractual-Non			
13	1,4	contractualemployee rights-Whistle blowing-definition-Aspects-	2		
		Intellectual Property Rights (IPR)—Meaning-Need for protection- Briefly			
		description of concept of patents, Copy right, Trademark			
Total in					
Hours					

3. REFERENCES

- Introduction to the Constitution of India- Dr. Durga Das Basu
 Empowerment of rural women in India-Hemalatha H.M and Rameshwari Varma, Hema Prakashana.

4. CIE and SEE Assessment Methodologies

Sl. No	Assessment	Test Week	Duration In minutes	Max marks	Conversion	
1.	CIE-1 Written Test	6	80	30	Average of three	
2.	CIE-2 Written Test	10	80	30	tests 30	
3	CIE-3 Written Test	16	80	30	30	
4.	CIE-4 MCQ	7	60	20	Average of two CIE = 20	
5	CIE-5 Open Book Test	14	60	20		
Total	CIE Marks	50				

Semester End Examination (Practice)	-	-	-
Total Marks	50		

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