

FIRST SEMESTER



JSS MAHAVIDYAPEETHA
JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED, MYSURU-06
CURRICULUM STRUCTURE
I Semester Scheme of Studies-Diploma in Jewellery Design and Technology (C-21)

Sl. No.	Course Category / Teaching Department	Course Code	Course Title	Hours per Week			Total contact hours per week	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for Passing (including CIE)	Assigned Grade	Grade Point	SGPA and CGPA
				L	T	P			Max	Min	Max	Min					
THEORY COURSES																	
1	SC/JD	4411	Metallurgical Science (T)	4	0	0	4	4	50	20	50	20	100	40			
2	EG/CS	4412	Basic English (T)	4	0	0	4	4	50	20	50	20	100	40			
PRACTICAL COURSES																	
3	JD	4413	Design Studies-I (P)	0	2	4	6	4	60	24	40	16	100	40			
4	JD	4414	Goldsmithing Basic (P)	0	2	4	6	4	60	24	40	16	100	40			
5	JD	4415	Jewellery Making Basic (P)	0	2	4	6	4	60	24	40	16	100	40			
AUDIT COURSES																	
6	AU/SC		Environment Sustainability	2	0	0	2	2	50	20	--	--	50	20			
7	SL		Sign Language-I	2	0	0	2	No End Exam									
8	Psy		Psychology and Counseling-I	2	0	0	2										
9	AU Physical Activity		Sports/NCC/NSS/Youth Red Cross/Yoga/ Technical Club.	Student shall enroll in any one of these activities in first semesters and shall participate actively. The student shall obtain "Participation Certificate" in the activity to get eligible for the award of Diploma.													
Total				14	6	12	32	22	330	132	220	88	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	4411	Semester	I
Course Title	Metallurgical science	Course Group	JD
No. of Credits	4	Type of Course	Lecture
Course Category	PC	Total Contact Hours	4 Hrs. / Week
			60 Hrs. / Semester
Prerequisites	SSLC	Teaching Scheme	[L : T : P] = 4 : 0 : 0
CIE Marks	50	SEE Marks	50

RATIONALE:

Metallurgical science provides students to build the basic knowledge about the metals, classification of metals and the students can inculcate the properties of metals in jewellery manufacturing process. It also provides the knowledge of karatage control of gold. This course provides a strong foundation for the students in jewellery manufacturing process.

1. COURSE SKILL SET:

1. Understand atomic structure and classification of metals in periodic table.
2. Study precious metals (Gold, Silver and Platinum) and base metal (Copper)
3. Understand metallurgy of karat gold alloys.
4. Learn annealing and melting process.
5. Study white gold alloys and its types.

2. COURSE OUTCOMES

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

	Course Outcome
CO-1	Understand the knowledge of atomic structure.
CO-2	Understand the knowledge of classification of metals in periodic table.
CO-3	Acquire the knowledge of precious metals and their properties
CO-4	Apply the knowledge of metallurgy of karat gold alloys.
CO-5	Acquire the knowledge of annealing and melting process and white gold alloys and its types

3. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO.	UNIT NAME	TEACHING HOURS	DISTRIBUTION OF THEORY MARKS			
			R	U	A	TOTAL
1	Atomic Structure	10	8	20	12	40
2	Classification of Metals	10	8	20	12	40
3	Precious Metals (Gold, Silver & Platinum) and Base Metal (Copper)	15	8	20	12	40
4	Metallurgy of Carat Gold Alloys	15	8	20	12	40
5	Annealing, Melting and White gold Alloys	14	8	20	12	40
	Total	64	40	100	60	200

R = Remember, U = Understand, A = Apply and above levels (Bloom's Revised Taxonomy)

4. 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. AND NAME	SKILL SET	TOPICS / SUBTOPICS	HOURS L-T-P
1. ATOMIC STRUCTURE	Understand atomic structure and Quantum numbers.	1.1 Concept of atoms and molecules 1.2 Atomic number, Mass number, Atomic weight 1.3 Orbit and Orbital 1.4 Quantum number and its types	10-0-0
UNIT 2: CLASSIFICATION OF METALS	<ul style="list-style-type: none"> Recal the concept of atomic structure Study of periodic table Apply the knowledge of classification of metals 	2.1 Brief study on periodic table 2.2 Periodic laws 2.3 Merits and demerits of modern periodic laws 2.4 Brief study on IB group metals 2.5 Brief study on IIB group metals 2.6 Resemblance among VIII group and IB group metals 2.7 Resemblance among IB and IIB group metals	10-0-0

UNIT 3: PRECIOUS METALS (GOLD, SILVER & PLATINUM) AND BASE METAL (COPPER)	Study precious metals (Gold, Silver and Platinum) and base metal (Copper)	3.1 Availability 3.2 Ores , Extraction & purification process 3.3 Chemical & Physical properties 3.4 Uses 3.5. properties of Brass 3.6 Rhodium plating	15-0-0
UNIT 4:METALLURGY OFKARAT GOLD ALLOYS	Apply the knowledge of metallurgy of karat gold alloys.	4.1 Three states of matter 4.2 Types of solids with example Crystal structures Cartage control 4.3 Alloying behaviour 4.5 Physical & Mechanical properties 4.6 Terms connected with equilibrium diagram 4.7 Solidification of alloys 4.8Color triangle 4.9 Phase diagrams of different alloy compositions <ul style="list-style-type: none"> a. Equilibrium diagram of gold - silver binary alloy system b. Equilibrium diagram of gold - copper binary alloy system 	15-0-0
UNIT 5: ANNEALING&MELTING AND WHITE GOLD ALLOYS	Know the importance of annealing and melting. Acquire the knowledge of white gold alloys and its types	5.1 Definition of Annealing 5.2 Hot working 5.3 Cold working 5.4 Brief introduction to ready alloys 5.5 Equipments 5.6 Consumables 5.7 Precautions 5.8 Usage of Pre-alloys 5.9Palladium based white gold 5.10 Nickel based white gold 5.11 Comparative study	14-0-0

5. MAPPING OF CO WITH PO

CO	Course Outcome	PO Mapped	Unit Linke	CL R/U/A	Theory in Hrs	Total Marks
1	Understand the knowledge atomic structure and classification of metals in periodic table.	1, 7	1	R/U/A	10	40
2	Acquire the knowledge of precious metals and their properties	1,2, 4, 7	2	R/U/A	10	40
3	Apply the knowledge of metallurgy of karat gold alloys.	1,2, 7	3	R/U/A	15	40
4	Know the importance of annealing and melting.	1, 4, 7	4	R/U/A	15	40
5	Acquire the knowledge of white gold alloys and its types	1, 3,4, 7	5	R/U/A	14	40
Total					64	200
<i>R = Remember, U = Understand, A = Apply and above levels (Bloom's Revised Taxonomy)</i>						

6. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
		1	2	3	4	5	6	7
Metallurgical Science	CO-1	3	0	0	0	0	0	3
	CO-2	3	3	0	2	0	0	3
	CO-3	3	3	0	0	0	0	3
	CO-4	3	0	0	3	0	0	3
	CO-5	3	0	3	3	0	0	3
<i>Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped</i>								

7. 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.

8. SUGGESTED LEARNING RESOURCES:

Sl. No	Author	Title of Books	Publication / Year
1	Robert Hole	Jewellery concepts & technology- Oppi Untracht	1962
2	P.L.Soni	Text book of inorganic chemistry	16th Edition
3	G.B.S Narang	Material Science	1952
4	World Gold Council's Technological Magazines		

9. COURSE ASSESSMENT AND EVALUATION CHART

Assessment Methods	Types of Assessment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment
DIRECT ASSESSMENT	CIE CONTINUOUS INTERNAL EVALUATION	IA Test	STUDENTS	Three tests (Average of Three tests will be Computed)	30	Blue Books	All Co's
		Assignment & Student activity		Average of MCQ/Quiz + Open book + Assignment	20	Activity Book	Specified CO by the Course Coordinator
				Total CIE Marks	50		
	SEE SEMESTER END EXAMINATION	Semester End Exam		End of the Course	50	Answer Scripts	All Co's
				Total	100		
INDIRECT ASSESSMENT	Student Feedback		STUDENTS	Middle of the Course	Feed Back Forms		

End of Course Survey	End of the Course
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10. COURSE ASSESSMENT SUMMARY

Sl.No	Assessment	Duration	Max Marks	Conversion
1	CIE Assessment – 1 (Written Test – 1) At the end of 6 TH Week	80 Minutes	30	Average of three written tests 30 Marks
2	CIE Assessment – 2 (Written Test – 2) At the end of 10th Week	80 Minutes	30	
3	CIE Assessment – 3 (Written Test – 3) At the end of 15th Week	80 Minutes	30	
4	CIE Assessment 4 (MCQ / Quiz) At the end of 8th Week	60 Minutes	20	Average of three 20 Marks
5	CIE Assessment 5 (Open book Test) At the end of 13th Week	60 Minutes	20	
6	CIE Assessment 6 (Student Activity / Assignment) At the beginning of 16th Week		20	
Total Continuous Internal Evaluation (CIE) Assessment				50
7	Semester End Examination (SEE) Assessment (Written Test)	3 Hours	100	50
Total Marks				100

Note:

- SEE (Semester End Examination) is conducted for 100 Marks theory courses for a time duration of 3 Hours.
- Three CIE (written test), each of 30 marks for a time duration of 80 minutes shall be conducted. Also, three CIE (MCQ or Quiz/Open book test/student activity or assignment) each of 20 marks for the time duration of 60 minutes shall be conducted.
- Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

11. DETAILED COURSE CONTENTS

UNIT NO. AND NAME	DETAILED COURSE CONTENT	C O	PO	CONT ACT HRS.	TOT AL
1.ATO MIC STRU CTUR E	Concept of atoms and molecules	1	1,7	2	10
	Atomic number, Mass number, Atomic weight	1	1,7	2	
	Orbit and Orbital	1	1,7	2	

	Quantum number and its types	1	1,7	2	
	Isotopes	1	1,7	2	
2.CLASSIFICATION OF METALS	Brief study on periodic table	2	1,2,4,7	1	10
	Periodic laws	2	1,2,4,7	1	
	3 Merits and demerits of modern periodic laws	2	1,2,4,7	1	
	Brief study on IB group metals	2	1,2,4,7	2	
	Brief study on IIB group metals	2	1,2,4,7,2	2	
	Resemblance among VIII group and IB group metals	2	1,2,4,7	2	
	Resemblance among IB and IIB group metals	2	1,2,4,7	1	
Precious Metals (Gold, Silver & Platinum) and Base Metal (Copper)	Availability	3	1,2,7	2	15
	Ores and Extraction & purification process	3	1,2,7	5	
	Chemical & Physical properties(Gold,Silver,Platinum)	3	1,2,7	6	
	Uses	3	1,2,7	2	
METALLURGY OFKARAT GOLD ALLOYS	Three states of matter	4	1,4,7	2	15
	Types of solids with example	4	1,4,7	1	
	Crystal structures	4	1,4,7	1	
	Cartage control	4	1,4,7	2	
	Characteristics of different alloys	4	1,4,7	1	
	Terms connected with equilibrium diagram	4	1,4,7	1	
	Solidification of alloys	4	1,4,7	1	
	Phase diagrams of different alloy compositions Equilibrium diagram of gold - silver binary alloy system	4	1,4,7	2	
	Equilibrium diagram of gold - copper binary alloy system	4	1,4,7	2	
	Equilibrium diagram of silver - copper binary alloy system	4	1,4,7	2	
ANNEALING&ME LTING AND WHITE GOLD ALLOYS	Definition of Annealing	5	1,3,4,7	2	14
	Hot working Cold working	5	1,3,4,7	2	
	Equipments, Procedures	5	1,3,4,7	2	
	Usage of Pre-alloys	5	1,3,4,7	2	
	Palladium based white gold	5	1,3,4,7	2	
	Nickel based white gold	5	1,3,4,7	2	
	Comparative study	5	1,3,4,7	2	
				Total	64

12. SUGGESTED LIST OF STUDENTS ACTIVITIES FOR CIE

Sl.NO	Suggested Activities
1	Make a chart of periodic table
2	List Physical and chemical properties of gold
3	Make a chart on karatage control
4	Write the electronic configuration of the elements of atomic number 1 to 15

13. RUBRICS FOR ACTIVITY

Dimension	Scale					Student Score For 20 marks	
	Unsatisfactory	Developing	Satisfactory	Good	Exemplary		
	4	8	12	16	20		
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	20	
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	12	
3. Conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	16	
4. Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	12	
					Total Score	60	
					60/4= 15	Total Marks	15

First Semester Examination, Model Question Paper

Metallurgical Science

Duration: 3Hours]

Subject Code: 4411

[Max. Marks:100

Instruction: Answer all the questions considering the internal choice in each section. Each section carries 20 marks.

SECTION – 1

1. a. i) The shape of d- orbital is..... 1x4=4
- a) Spherical b) Dumb-bell c) Double dumb-bell d) Oval
- ii)is the mixture of 1part HCl and 3 Part HNO₃
- a) Strong acid b) Strong base c) Aqua-regia d) Amalgum
- iii) Atomic number is the number of present In the nucleus
- a) Neutron b) Proton c)electron d) Meson
- iv)The charge of proton is
- a)Positive b) Negative c)Neutral d) Meson
- b. Differentiate between orbit and orbital. 06
- OR
- What ia istopes and write the isotopes of gold and silver
- c. Briefly Explain about the structure of atom 10

OR

What is quantum numbers and explain the types of quantum numbers.

SECTION – 2

2. a i) The electronic configuration of F⁹ is 1x4=4
- a)1s² 2s² 2p⁵ b) 1s² 2s¹ 2p⁶ c) 1s¹ 2s² 2p⁶
- ii)The vertical arrangement of elements in the periodic table called.....
- a)Groups b) periods c) column d) line

iii) The number of s electrons present in O^8 is

- a) 5 b) 4 c) 3 d) 2

iv) The atomic number of copper is.....

- a) 78 b) 79 c) 47 d) 29

b. Briefly explain about IB group metals. 06

OR

Write Three merits and demerits of modern periodic table

c. Explain the resemblance in properties among Cu, Ag and Au. 10

OR

Explain Resemblance among IB and IIB group metals

SECTION – 3

3. a i) The principle ore of silver is 1x4=4

- a) Chalcopyrite b) Silver glance c) Azurite d) Horn silver

ii) In electrolytic refining gold maximum purity ____% can be achieved.

- a) 99 b) 95 c) 92 d) 80

iii) Chemical composition of silver glance is _____

- a) Ag_2O b) Ag_2S c) $AgBr$ d) $AgCl$

iv) In electrolytic refining of silver cathode is made up of ____ -

- a) Pure Silver b) Impure Silver c) Graphite d) none

b. Explain electrolytic Refining of silver. 6

OR

Write the physical and chemical properties of copper

c. Briefly explain about Mac Arthur Cyanide process. 10

OR

Explain the purification of gold by parting with HNO_3 or H_2SO_4

SECTION – 4

4. a) i. Gold is having ___ type of crystal structure 1x4=4
a) FCC b) BCC c) SCS d) All of these
ii. _____ is the highest gold producing country in the world.
a) India b) China c) Austria d) Germany
iii. Gold content of 19K is _____
a) 79.15 b) 70 c) 92 d) 90
iv. In silver copper binary alloy system the first copper phase separation takes place at _____
a) 410 b) 455 c) 628 d) 740
b. Explain the three states of matter 6

OR

Explain the importance of gold alloys

- c. Explain equilibrium diagram of gold silver alloys. 10

OR

What is lattice point and explain the types of Lattice point.

SECTION – 5

- 5.a. i) Silver reacts with sulphur to give black colour _____ 1x4=4
a) silver chloride b) silver sulphide c) silver oxide
d) silver nitrate
ii) The specific gravity of gold is _____
a) 18.5 b) 15.3 c) 19.8 d) 20.2
iii) _____ based white gold alloys are expensive
a) Pt b) Pd c) Rh d) Ag
iv) _____ is a chemical substance which is frequently used during melting .
a) Benzene b) Phenol c) Ethylene oxide d) Flux

- a. write short note on ready alloys
06

OR

Explain hot and cold working process of annealing

- b. Explain different types of melting equipments used in gold alloy melting. 10

OR

What is white gold alloy? Explain the different types of white gold alloys with examples.

GOVERNMENT OF KARNATAKA
DEPARTMENT OF COLLEGIAGE AND TECHNICAL EDUCATION
JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED (AUTONOMOUS)

Course Code	21EG11T	Semester	I
Course Name	BASIC ENGLISH	Course Group	Core
No. of Credits	4	Type of Course	Lecture
Course Category	AR/CS/EC/JD	Total Contact Hours	4 Hrs. / Week
			64 Hrs. / Semester
Prerequisites	English Knowledge	Teaching Scheme	[L : T : P]=4:0:0
CIE Marks	50	SEE Marks	50

Preamble

Basic English language plays an essential role in our lives as it helps in communication. It is the main language for studying any subject all over the world. English is important for students as it broadens their minds, develops emotional skills, improve the quality of life by providing job opportunities.

Moreover, the use of English as an International language is growing with time because it is the only medium for communication in many countries. English is also used widely in the literature and media section to publish books, most of the writers write in the English language due to the vast majority of readers know only the English language and they can describe their ideas best in the English language.

1. COURSE OBJECTIVES

At the end of the course, the students will be able to acquire the following skills:

1. Develop Basic Skills in English.
2. Build better communication skills: oral and written expressions and body language
3. Learn Communication Skills in English.
4. Develop Reading, writing and listening skills.

2. COURSE OUTCOMES

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

Course Outcomes	
CO1	Use English alphabets both upper and lower case in framing the words and sentences.

CO2	Differentiate between Masculine and Feminine Gender.
CO3	Apply singular and plural forms in a sentence.
CO4	Acquire the knowledge of writing grammatically correct sentences.
CO5	Develop knowledge of vocabulary and grammar in reading notes without mistakes.

3. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARKS FOR SEE

UNIT NO.	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)			TOTAL
			R	U	A	
01	The English Alphabet	12	10	10	20	40
02	Masculine and Feminine Gender	12	10	10	20	40
03	Number	12	10	10	20	40
04	Sentence	13	10	10	20	40
05	Basic English Vocabulary & Reading Comprehension	15	10	10	20	40
Total		64	50	50	100	200

(R = Remember, U = Understand, A = Apply and above levels (Bloom's Revised Taxonomy))

4. DETAILS OF COURSE CONTENT:

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.	UNIT SKILL SET	TOPICS / SUBTOPICS	HOURS L-T-P
UNIT-1 The English Alphabet	Use English alphabets both upper and lower case in framing the words and sentences.	1.1 Capital letters 1.2 Small letters 1.3 Vowels –Consonants 1.4 Finding words from the Dictionary 1.5 Arranging the letters in Dictionary order 1.6 Arranging the words in the Dictionary order 1.7 Identifying words through pictures.	12-0-0
UNIT- 2		2 2.1 Gender: Definition Nouns and Pronouns	12-0-0

Masculine and Feminine Gender	Understand the difference between male and female gender	2.2 Identifying the Gender through pictures 2.3 Identifying the Gender by reading the names 2.4 Writing the other Gender Activity/Exercises	
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UNIT NO.	UNIT SKILL SET	TOPICS / SUBTOPICS	HOURS L-T-P
UNIT- 3 Number	Understand to change singular and plural numbers in a sentence	3.1 Singular and Plural Number 3.2 Formation of plurals 3.3 Rules -Fill in the blanks with the plural form of the word 3.4 Changing the Singular form into Plural form in a sentence 3.5 One word substitution. Activity/Exercises	12-0-0
UNIT- 4 Sentence	Understand the concept of sentence and kinds of sentences.	4.1 Types of a sentence. 4.2 Parts of a sentence. 4.3 Sentence formation. 4.4 Correction of errors in a sentence. 4.5 Rearranging the words in a sentence. 4.6 Making sentences from the given table. 4.7 Writing simple sentence. 4.8 Changing Assertive sentence to Interrogative, 4.9 Negative or Exclamatory sentence. 4.10 Writing simple sentences by seeing the pictures. Activity/Exercises	13-0-0
UNIT-5 Basic English Vocabulary & Reading Comprehension	Develop knowledge of vocabulary and grammar in reading notes without mistakes.	5.1 Learning English through pictures like Buildings, Appearances, Clothes, Eating at home, General Furniture and Equipment, Food, Entertainment, Jobs and work, The Human Body and Anatomy, English Greetings etc., 5.2 The art of reading and comprehending passages 5.3 Giving titles to the passages after reading comprehension 5.4 Framing questions and answering them	15-0-0

5. MAPPING OF CO WITH PO

CO	Course Outcomes	PO Mapped	Unit Linked	CL R/U/A	Theory in Hrs.	Total Marks
1	Use English alphabets both upper and lower case in framing the words and sentences.	1,2,3,6,7	1	R/U/A	12	40

2	Differentiate between Masculine and Feminine Gender.	1,3,4,7	2	R/U/A	12	40
3	Apply singular and plural forms in a sentence.	1,3,4	3	R/U/A	12	40
4	Acquire the knowledge of writing grammatically correct sentences.	1,3,4	4	R/U/A	13	40
5	Develop knowledge of vocabulary and grammar in reading notes without mistakes.	1,3,4	5	R/U/A	15	40
Total					64	200

6. LEVELS OF CO AND PO MAPPING

Course	CO's	Programme Outcomes							Programme Specific Objectives		
		1	2	3	4	5	6	7	1	2	3
Basic English	CO1	3	-	-	-	2	2	3	2	3	-
	CO2	3	-	-	-	-	2	3	2	3	-
	CO3	3	-	-	-	2	2	3	2	3	-
	CO4	3	-	-	-	2	2	3	2	3	-
	CO5	3	-	-	-	2	2	3	2	3	-
Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.											
Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.											
If >40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3											
If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2											
If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1											
If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.											

7. INSTRUCTIONAL STRATEGY

There are various strategies that can be adopted by the teachers today related to the course outcomes.

- Helping out the students to develop the basic knowledge of Grammar.
- Supporting them to build self-confidence, self-managing, and Team managing spirit.
- Encouraging them to improve their communication skills.
- Developing the student's language skills in written, spoken, and communication.
- Encouraging them to use new vocabularies in the context.
- Encourage active involvement in classroom activities.
- Explain the concept in a simple and easily understood manner.
- To teach language skills across the syllabus.
- Enhancing the student skills for employability needs.
- Getting knowledge to understand the basic skills through language.

8. SUGGESTED LEARNING RESOURCES:

Sl. No	Author	Title of Books	Publication / Year
1	Dr. Shruti Das	Contemporary Communicative English	S Chand Publications
2	Wren and Martin	English Grammar And Composition	S Chand Publications
3	M.A Pink and S.E Thomas	English Grammar And Composition	S Chand Publications
4	Sanjay kumar Sinha	The King's Grammar	S Chand Publications

9. Educational Components (Bloom's Category)

Questions for CIE and SEE will be designed to evaluate the various educational components such as:

EC-1 : Remembering	: 20 % weightage
EC-2 : Understanding the course	: 30 % weightage
EC-3 : Apply the knowledge acquired from the course	: 50 % weightage

10. COURSE ASSESSMENT AND EVALUATION CHART

Course Assessment And Evaluation Chart

MODEL OF RUBRICS /CRITERIA FOR ASSESSING STUDENT ASSIGNMENT

Example: Assignment on Story Writing

Assessment Method	Type of Assessment		Target	Assessment methods	Max Marks	Type of record	CO's for assessment
Direct Assessment	CIE Continuous Internal Evaluation	IA Testes	ST UD EN T	Three Tests (Average of Three Tests will be Computed)	30	Test Books	All CO's
		Assignment & Student Activity		Average of MCQ + Open Book Assignment + Assignment	20	Log of record/Activity Book	Specified CO by the course coordinator
				Total CIE Marks	50		
	SEE	Semester End Exam		End of the Course	50	Answer Scripts by BTE	All CO's
				Total	100		

Indirect Assessment	Student feedback	ST UD EN T	Middle of the course	-NA-	Feedback forms	CO's which are covered
	End of Course survey		End of course		Questionnaire	All CO's Effectiveness of delivery of instructions and

11 . COURSE ASSESSMENT METHODOLOGY

Sl.No.	Assessment	Duration	Max Marks	Conversion
1	CIE Assessment – 1 (Written Test – 1) At the end of 6 th Week	80 Minutes	30	Average of three written tests 30 Marks
2	CIE Assessment – 2 (Written Test – 2) At the end of 10 th Week	80 Minutes	30	
3	CIE Assessment – 3 (Written Test – 3) At the end of 15 th Week	80 Minutes	30	
4	CIE Assessment 4 (MCQ / Quiz) At the end of 8 th Week	60 Minutes	20	Average of three 20 Marks
5	CIE Assessment 5 (Open book Test) At the end of 13 th Week	60 Minutes	20	
6	CIE Assessment 6 (Student Activity / Assignment) At the beginning of 16 th Week	60 Minutes	20	
Total Continuous Internal Evaluation (CIE) Assessment				50
7	Semester End Examination (SEE) Assessment (Written Test)	3 Hours	100	50
Total Marks				100

Note:

- SEE (Semester End Examination) is conducted for 100 Marks theory courses for a time duration of 3 Hours.
- Three CIE (written test), each of 30 marks for a time duration of 80 minutes shall be conducted. Also, three CIE (MCQ or Quiz/Open book test/student activity or assignment) each of 20 marks for the time duration of 60 minutes shall be conducted. Any fraction at any stage during evaluation will be rounded off to the next higher digit

3. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator. The secured mark in each case is rounded off to the next higher digit.

12. DETAILED COURSE CONTENTS

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
UNIT-1 The English Alphabet	1.1 Capital letters	1	1,5,6,7	2	12
	1.2 Small letters	1	1,5,6,7	2	
	1.3 Vowels –Consonants	1	1,5,6,7	2	
	1.4 Finding words from the Dictionary	1	1,5,6,7	2	
	1.5 Arranging the letters in Dictionary order	1	1,5,6,7	1	
	1.6 Arranging the words in the Dictionary order	1	1,5,6,7	1	
	1.7 Identifying words through pictures.	1	1,5,6,7	2	
UNIT– 2 Masculine and Feminine Gender	2.1 Gender: definition Nouns and Pronouns	2	1,6,7	4	12
	2.2 Identifying the Gender through pictures	2	1,6,7	3	
	2.3 Identifying the Gender by reading the names	2	1,6,7	3	
	2.4 Writing the other Gender	2	1,6,7	2	
UNIT- 3 Number	3.1 Singular and Plural Number	3	1,5,6,7	3	12
	3.2 Formation of plurals	3	1,5,6,7	3	
	3.3 Rules -Fill in the blanks with the plural form of the word	3	1,5,6,7	2	
	3.4 Changing the Singular form into Plural form in a sentence	3	1,5,6,7	2	
	3.5 One word substitution.	3	1,5,6,7	2	

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
UNIT- 4 SENTENCE	4.1 Types of a sentence.	4	1,5,6,7	2	13
	4.2 Parts of a sentence.	4	1,5,6,7	2	
	4.3 Sentence formation.	4	1,5,6,7	2	
	4.4 Correction of errors in a sentence	4	1,5,6,7	1	
	4.5 Rearranging the words in a sentence	4	1,5,6,7	1	
	4.6 Making sentences from the given table.	4	1,5,6,7	1	
	4.7 Writing simple sentence.	4	1,5,6,7	1	
	4.8 Changing Assertive sentence to Interrogative,	4	1,5,6,7	1	
	4.9 Negative or Exclamatory sentence.	4	1,5,6,7	1	
	4.10 Writing simple sentences by seeing the pictures.	4	1,5,6,7	1	
UNIT-5 Basic English Vocabulary & Reading Comprehension	5.1 Learning English through pictures like Buildings, Appearances, Clothes, Eating at home, General Furniture and Equipment, Food, Entertainment, Jobs and work, The Human Body and Anatomy, English Greetings etc.,	5	1,5,6,7	6	15
	5.2 The art of reading and comprehending passages	5	1,5,6,7	3	
	5.3 Giving titles to the passages after reading comprehension	5	1,5,6,7	3	
	5.4 Framing questions and answering them	5	1,5,6,7	3	
Total					64

13. MODEL OF RUBRICS /CRITERIA FOR ASSESSING STUDENT ASSIGNMENT**Example: Assignment on Story Writing**

RUBRICS FOR ACTIVITY(10 Marks)						
Dimension	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	Student Score
	2	4	6	8	10	
Creativity	Little evidence of creativity and no imagination	Contains few creative details but has tried to use imagination	Contains a few creative details but has used his imagination	Contains many creative details and has used his imagination	Excellent use of creativity and imagination	10
Dialogue	It is not clear which character is speaking	There is not much dialogue used but is clear who is speaking	Sufficient dialogue used and is clear which character is speaking	An appropriate amount of dialogue used and it is clear which character is speaking	Excellent use of dialogue and narrative to bring the character to life	8
Organization	Ideas and scenes are randomly arranged	Little hard to follow. The transitions are sometimes not clear	Easy to follow and transitions are somewhat clear	Well organized. Clear transitions are used	Very well organized. Logical sequencing with clear transitions	10
Character	It is hard to tell who the main characters are	The main characters are named but development is minimal	The main characters are satisfactorily described.	Characterization is up to the mark	Very well developed characters	6
Total marks						34
Total marks / 4 = (10+8+10+6) = 34/4 = 8.5 = 09						09

14. SUGGESTED ACTIVITIES

1. Write your self-introductions.
2. Customer relation skills: Write a short paragraph on an experience, either positive or negative, when you approached an office/ organization for a service.
3. Positivity skills: Read about people who have survived deadly diseases and how they coped with their difficulties. Write a brief report.
4. Describe your favourite Tourist place/ Teacher/ Role model / Sports person / Actor / Politician etc.

5. Write an imaginary story on any topic of your choice.
6. Frame a timetable of your scheduled activity for a day.
7. Mock interviews
8. Word Building
9. Group Discussion
10. Time Management Activity
11. Debates
12. Jumbled and missing letters game
13. Memory Games
14. Presentation
15. Enact an Advertisement
16. Role play
17. Telephonic conversations
18. Pick and Speak
19. Discuss with your friend and write a brief paragraph, if one's mother tongue is an important part of one's life.
20. Interview an eminent person in your locality.
21. Interview your local shop owners about how important 'reliability' is in their business. Prepare a brief report.
22. Collect information about any initiatives by government or private organizations to promote professionalism among their employees.
23. Leadership skills: Have you ever been in a leadership position? What did you learn from your experience? Share your thoughts.
24. Holistic and Visionary skills: when you start working in the future, how will you contribute to the company, and what do you expect from the company in return. Briefly write about your plans.

First Semester Examination, Model Question Paper – 2021**Basic English****Duration: 3 Hours]****Subject Code: 21EG11T****[Max. Marks: 100**

Instruction: Answer all the questions considering the internal choice in each section.
Each section carries 20 marks.

SECTION – 1 [20 Marks]**[Questions from Unit 1 – The English Alphabet which covers CO-1 and POs 1,5,6,7]**

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 2 [20 Marks]**[Questions from Unit 2 – Masculine and Feminine Gender which covers CO-2 and POs 1,6,7]**

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 3 [20 Marks]**[Questions from Unit 3 – Number which covers CO-3 and POs 1,5, 6,7]**

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 4 [20 Marks]**[Questions from Unit 4 – Sentence which covers CO-4 and POs 1,5,6,7]**

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 5 [20 Marks]**[Questions from Unit 5 – English vocabulary & Reading Comprehension which covers CO-5 and PO 1,5,6,7]**

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

5. MODEL QUESTION PAPER FOR SEE

IC: 210

Codes: 21EG11T

FIRST SEMESTER DIPLOMA EXAMINATIONS

BASIC ENGLISH

Time: 3 Hours

Max. Marks: 100

- Instructions:** i) All four sections are compulsory.
ii) Answer one full set of questions from each main.
iii) Follow the instructions carefully while writing answers.
iv) Marks shall be deducted for spelling and grammatical errors.

SECTION- 1

1. Arrange the letters in the Dictionary Order.

5x1=5

- a) F D C H K
- b) N M S U V
- c) P I B N T
- d) E C H L I
- e) S W U R V

OR

- a) D E F M W
- b) S I K T E
- c) W V R J S
- d) N Q Z L P
- e) P K T Y C

2. Arrange the words in the Dictionary Order.

5x1=5

- a) Pen, ink, book, nib
- b) Sing, dance, play, jump
- c) Red, black, white, green
- d) Father, mother, brother, sister
- e) Donkey, monkey, elephant, fox

OR

- a) Pen, ink, book, nib
- b) Sing, dance, play, jump
- c) Red, black, white, green
- d) Father, mother, brother, sister

e) Donkey, monkey, elephant, fox

3. Write the other Gender.

5x1=5

- a) Uncle
- b) Husband
- c) Monk
- d) Pig
- e) Lion

OR

- a) Actor
- b) Author
- c) Bachelor
- d) Brave
- e) Bride

4. Match the following with the other Gender.

5x1=5

- | | |
|---------|---------|
| a) Hero | vixen |
| b) Sir | Cow |
| c) Cock | heroine |
| d) Fox | Madam |
| e) Ox | hen |

OR

- | | |
|------------|----------|
| a) Peacock | Madam |
| b) Tiger | Tigress |
| c) Sir | Rooster |
| d) Hen | Daughter |
| e) Son | Peahen |

SECTION- 2

5. Write the Plural form of

5x1=5

- a) Apple
- b) Negro
- c) Dam
- d) Church
- e) Box

OR

- a) box
- b) tooth
- c) leaf
- d) hobby
- e) woman

6. Fill in the blanks with the right words.

5x1=5

- a) One Peach, Five _____
- b) Four temples, one _____
- c) Six schools, one _____
- d) One mouse, Several _____
- e) Six geese, one _____

OR

- a) One sheep, many _____
- b) One hero, several _____
- c) One peach, five _____
- d) One pen, four _____
- e) Four temples, one _____

7. Change the sentences from Singular to Plural.

5x1=5

- a) The child is eating an apple
- b) This story is interesting.
- c) A soldier is marching.
- d) The woman has a necklace.
- e) The man stole the silver spoon.

OR

- a) The child is eating an apple
- b) This story is interesting.
- c) A soldier is marching.
- d) The woman has a necklace.
- e) The man stole the silver spoon.

8. Change the following Sentences from Plural to Singular.

5x1=5

- a) The Soldiers climbed the hills on the ponies.
- b) The Policemen were chasing the thieves.
- c) The birds are flying in the sky.
- d) The girls have four books.

e) The pigs chased the dogs away.

OR

- a) The stairs are over there, Sir.
- b) Your sunglasses are on the table.
- c) The scissors on the table are mine.
- d) *The cats are drinking their milk.*
- e) There are many logs.

SECTION- 3

9. Underline the mis spelt word in each group . Write the correct Spellings in your answer sheet.

5x1=5

- a) Son, dughter, wife, husband, cousin
- b) Alone, togather, happily, quietly, surely
- c) People, polite, please, parents, complane
- d) Reason, wealth, marrige, horrible, forgive
- e) Started, busines, merchant, shop, unlucky

OR

- a) Trouble, excited, praceed, Gazed, sparkled
- b) Utter, flutter, mutter, shutter, clutter
- c) Tasty, useful, safe, weste, waist
- d) Large, piece, breaad, loaf, rhyme
- e) Tale, tail, tall, tell, tald

10. Complete the sentences choosing the correct word from the options given below. 5x1=5

- a) Water is _____ for life. We cannot live without water.
 - i) Important ii) essential iii) useful
- b) The common _____ of water are lakes, river, springs, ponds, wells and tube wells.
 - i) sources ii) resources iii) requirements
- c) All water is not _____ to drink as it may contain certain germs.
 - i) tasty ii) useful iii) safe
- d) We should not _____ water.
 - i) waste ii) waist iii) save
- e) Trees grow with _____
 - i) water ii) Juice iii) alcohol

OR

- a) Cats like to drink _____
 - i) Milk ii) rat iii) fruits

- b) There are _____ days in a week
 i) nine ii) eight iii) seven
- c) Birds are _____ in the air
 i) Flying ii) dancing iii) jumping
- d) I don't care _____ Your opinion.
 i) About ii) of iii) with
- e) Who takes _____ the sick?
 i) care of ii) care about iii) after

11. Write the opposites of

5x1=5

- a) Light
 b) Old
 c) Full
 d) Uneven
 e) Warm

OR

- a) Ability
 b) Happy
 c) Import
 d) Interior
 e) Maximum

12. Correct the following sentences

5x1=5

- a) This is a water
 b) She has umbrella
 c) He is a Coward man
 d) He has resigned from his post
 e) My father is in the teaching line

OR

- a) I have seen him yesterday.
 b) We had gone to the movies last night.
 c) I had spoken to them about my holiday.
 d) You must attend your teacher's instructions.
 e) The hen has lain six eggs.

SECTION -4

13. Make Five sentences from the given table.

5x1=5

Shall Should	I We	Participate? Proceed? Observe? Plan?
-----------------	---------	---

Can Could	I We They She He	Manage? Examine? Instruct? Dictate?
--------------	------------------------------	--

OR

she	cleaned	Two Three five	Big small	Plates. Cups. Tables.
-----	---------	----------------------	--------------	-----------------------------

14. Rearrange the words in a sentence

5x1=5

- Play /foot/ ball/ I
- Cow/ the/ two/ has /horns.
- Full/ basket/ the/ is/ fruits/ of
- Rope/ Tina /skipping/ is/ a /with
- There /days/ are/ week/ in /a/ seven

OR

- Tie /can/ your /you /hair?
- Hat /black/ is /the.
- Pretty /leaves/ are/ the.
- Can/ bat/ the/ fly.
- Like/ I /candy.

15. Match the two parts of sentences

5x1=5

- | | |
|------------------|-----------------------|
| a. Cats like | is crying |
| b. The Policeman | to drink milk |
| c. The baby | caught the thief |
| d. The noise | are flying in the air |
| e. Birds | woke up the child |

OR

- | | |
|---------------|-------------------|
| a) The cat | bite me. |
| b) The crow | caught the mouse. |
| c) This purse | gave me a book. |
| d) A mosquito | made of paper. |
| e) My aunt | spread its wings. |

16. Write 8 to 10 sentences about your Parents or Grand Parents.

5x1=5

OR

Write 8 to 10 sentences about your Favorite school teacher.

SECTION -5

17. Choose the correct word to fill in the blanks.

10x1=10

(wasted, brought, bundle, ordered, turned, broken, divided, untied, quarreled, tried)

A farmer had three sons. They _____ their time and energy in quarrelling with on another.

Their father's advice had no effect on them. They _____ a deaf ear to it.

When the farmer was on his death-bed, he ordered his servant to bring a _____ of dry sticks.

When they were _____, he sent for his sons. When they came, he asked-them to break the bundle of sticks. All _____ their best, but with all their youthful strength, none could break the bundle.

Then the farmer _____ them to untie the bundle and break the sticks one by one. When the bundle was _____, sticks fell apart. Now all were _____ in no time. At this the old farmer said, "Look here, my sons; Learn a lesson from this experience. United you J stand, _____ you fall. From that day the sons never _____.

OR

(ground, cricket, leaves, turned, found, worked, beggar, refused, stored, sang)

Once upon a time there was a young _____. He spent the sunny days of spring and summer in singing. At that time he had plenty to eat. He had no worries. But soon winter set in., The _____ was covered with snow. There were no _____ or flowers on the trees. He _____ that there was nothing to eat.

Nearby there lived many ants. They had _____ very hard during summer and had collected enough food for the winter season.

When the cricket began to starve, he went to an ant and _____ it to lend him some food. The ant _____. The ant asked the cricket if he had _____ some food in the summer months for foodless day of winter, he would not have begged for food. The cricket said, that at that time the spring had been in full swing; so he _____-throughout the season.

"Well then", said the ant, "If you sing in spring, you must dance all through the winter," So saying it _____, out the poor silly cricket.

18. Read the following passage and answer the questions that follow :

10

Darius was the Emperor of Persia. His empire was vast, his army was big and he himself was known for his courage and daring. Alexander had set his heart on conquering Persia. He came to Persia marching at the head of his army which was much smaller than that of Darius. On the eve of the battle the whole valley was lit by the torches of the Persian Soldiers. Some of the Macedonian officers were dismayed. They wondered if they could defeat such a mass of humanity. They went to Alexander and advised him to attack the enemy at night. Alexander smiled and gave them the famous answer, “I will not steal a Victory”.

Sometime later Alexander received a letter from Darius in which he offered to pay a huge amount of money in exchange for Persian Prisoners and give him his daughter in marriage if he promised to be his friend. Alexander told his friend Parmenio about the proposals made by Darius. “ If I were Alexander, I would accept them” said Parmenio. “ So would I”, said Alexander “If I were Parmenio”.

Questions :

- a) What were the two qualities of a warrior Darius had ?
- b) Why were the Macedonian officers dismayed ?
- c) Alexander did not like the idea of attacking the enemy at night because_____.
- d) What did the letter from Darius to Alexander contain ?
- e) What was Parmenio’s advised to Alexander and how did Alexander react to that ?

OR

Lokamanya Tilak was imprisoned by the English. He kept himself busy in studies while in jail. The jail was a quiet place, where even the birds wouldn’t chirp. Tilak started putting away some food for birds while having his meals. The food was untouched in the beginning. But after some days, a few birds started coming there. Slowly their number increased and they were all around Tilak. The birds would sit on his head and shoulders fearlessly. One day a jailor came to Tilak’s cell while on his rounds. On hearing the chirping of birds, he peeped in and he was totally surprised. “So many birds; where have they come from?” he asked. Tilak replied, “Friend, I didn’t bring them from India. These are from here only” The jailor was surprised. He said, “everybody eats birds; hence the birds do not come here” Tilak laughed and said, “The birds can also distinguish between friends and enemies.”

Question:

- a) Whom did English imprison?
- b) How did Tilk keep himself busy?
- c) Why did the birds come to the prison?
- d) Where would the birds sit when they came to the prison?
- e) Give a title for this passage.

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

Programme: Jewellery Design and Technology

Course Code	4413	Semester	I
Course Title	Design Studies-I	Course Group	JD
No. of Credits	4	Type of Course	Tutorial and Practice
Course Category	PC	Total Contact Hours	6 Hrs. / Week
			96 Hrs. / Semester
Prerequisites	SSLC	Teaching Scheme	[L : T : P] = 0 : 2 : 4
CIE Marks	60	SEE Marks	40

RATIONALE:

Design studies help the learner to understand the history of jewellery design, design elements and principle of design. It helps to learn visualizing different types of stone shapes and metal texture with rendering of various types of design.

1. COURSE SKILL SET:

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

1. To understand design elements and principle of design.
2. To learn visualizing different types of stone shapes and metal texture with rendering.
3. To study gemstones and rendering.
4. To study basics of rendering in jewellery design.

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	Junior Assistant Designer

3. PREREQUISITES

STUDENT	Nil.
TEACHER	Five year experience in Jewellery designing

4. COURSE OUTCOMES

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

	Course Outcome
CO1	Understand the concept of design elements and principle of design.
CO2	Apply the knowledge of visualizing to different types of stone shapes and metal texture with rendering
CO3	Acquire the knowledge about gemstones and rendering
CO4	Understand various types of design

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)			TOTAL
			R	U	A	
01	Introduction To History of Jewellery Design, Tools Materials and Design Elements Principle of Design And Center Line Design (Symmetry)	27	10	20	20	50
02	Visualizing Different Types Of Stone Shapes, Metal Textures And Its Rendering	24	10	20	20	50
03	Introduction Of Gemstones (Navarathana) And Rendering	24	10	20	20	50
04	Understanding Of Various Types Of Design Enlargement & Reduction Of Design Basics Of Rendering In Jewellery Designing	21	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. 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	Introduction To History of Jewellery Design, Tools Materials and Design Elements Principle of Design And Center Line Design (Symmetry)		27
	1.1 Pre-Historical era. 1.2 Middle ages. 1.3 South East Asian, American, Indian, and North American. 1.4 Indian Traditional Jewellery. 1.5 Drafting Table 1.6 Light Table 1.7 Paint / Staedtler pencils 1.8 Paint Brushes 1.9 Pencils 1.10 Rotring isograph (pen) 1.11 Templates 1.12 Lines 1.13 Direction 1.14 Texture 1.15 Mass 1.16 Shape 1.17 Color	1. Understand the history of Jewellery design 2. Learn different tools used in designing	
2	Visualizing Different Types Of Stone Shapes, Metal Textures And Its Rendering		24
	2.1 Round cut 2.2 Bugget cut 2.3 Tapper bugget cut 2.4 Emerald cut 2.5 Prince cut 2.6 Pear cut 2.7 Marquise cut 2.8 Heart cut 2.9 Mirror polish 2.10 Dull polish 2.11 Sand blast 2.12 Enameling 2.13 Carving 2.14 En-carving 2.15 Jally work	1. Learn about different types of stones 2. Acquire the knowledge of metal texture 3. Create new designs using rendering method	
3	Introduction Of Gemstones (Navarathana) And Rendering		24

	3.1 Introduction Of Gemstones 3.2 Emerald 3.3 Ruby 3.4 Blue Sapphire 3.5 Yellow Sapphire 3.6 Pearls 3.7 Cat's Eyes 3.8 Diamond 3.9 Garnet 3.10 Coral	1. Acquire the knowledge of 9 gems 2. Create new designs using gem stones 3. Acquire the knowledge of rendering process	
4	Understanding Of Various Types Of Design Enlargement & Reduction Of Design Basics Of Rendering In Jewellery Designing		21
	4.1 Nature 4.2 Abstract 4.3 Traditional 4.4 Contemporary 4.5 Enlargement & reduction of design 4.6 Metal surface rendering 4.7 Flat surface rendering 4.8 Water 4.9 Fire Introduction to Water coloring	1. Able to design Traditional, contemporary jewellery designing's. 2. Acquire knowledge of enlargement and reduction of designs 3. Understand the basic rendering methods.	
	Note: Importance to be given on Design Studies- I techniques – Line, Texture, Stone measurements, manual drawing, Water coloring.		96

8. SUGGESTED PRACTICAL EXERCISES

Sl No	Suggested Practical Exercises (should be similar in skills to the ones enlisted)	Unit No	PO	CO	L:P Hrs
1	Pre-Historical era, Middle ages, South East Asian, American, Indian, and North American, Indian Traditional Jewellery, Drafting Table Light Table	1	1,3,5,7	1	3 :6
2	Paint / Staedtler pencils, Paint Brushes, Pencils, Rotring isograph (pen), Templates, Lines	1	1,3,5,7	1	3:6
3	Direction, Texture, Mass, Shape, Color	1	1,3,5,7	1	3:6
4	Round cut, Bugget cut, Tapper bugget cut, Emerald cut	2	1,2,4,7	2	2:4
5	Prince cut, Pear cut, Marquise cut, Heart cut	2	1,2,4,7	2	2:4
6	Mirror polish, Dull polish, Sand blast, Enameling	2	1,2,4,7	2	2:4
7	Carving, En-carving, Jally work	2	1,2,4,7	2	2:4

8	Introduction Of Gemstones	3	1, 3,4,7	3	2:4
9	Emerald, Ruby, Blue Sapphire	3	1, 3,4,7	3	2:4
10	Yellow Sapphire, Pearls, Cat's Eyes	3	1, 3,4,7	3	2:4
11	Diamond, Garnet, Coral	3	1, 3,4,7	3	2:4
12	Nature, Abstract, Traditional	4	1,3,7	4	2:4
13	Contemporary, Enlargement & reduction of design,	4	1,3,7	4	2:4
14	Metal surface rendering, Flat surface rendering	4	1,3,7	4	2:4
15	Concave, Convex	4	1,3,7	4	1:2

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

CO	COURSE OUTCOME	PO MAPPED	EXPERIMENT LINKED	COGNITIVE LEVEL (R/)	TUTORIAL & PRACTICAL SESSIONS IN
CO-1	Understand the concept of design elements and principle of design.	1, 3,5, 7	1-3	A	27
CO-2	Apply the knowledge of visualizing to different types of stone shapes and metal texture with rendering	1,2,4,7	4-7	A	24
CO-3	Acquire the knowledge about gemstones and rendering	1, 3,4,7	8-11	A	24
CO-4	Understand various types of design	1,3,7	12-15	A	21
Total					96

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
		1	2	3	4	5	6	7
Design Studies -I	CO-1	3	0	3	0	2	0	3
	CO-2	3	3	0	3	0	0	3
	CO-3	3	0	2	3	0	0	3
	CO-4	3	0	3	0	0	0	3
<i>Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped</i>								

11. SUGGESTED LEARNING RESOURCES:

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

SUGGESTED LINKS

- <https://www.youtube.com/watch?v=wuTwUGYIZQM>
- <https://www.youtube.com/watch?v=6ZjOaJIueb4>
- <https://www.youtube.com/watch?v=67A8uRFU920>
- <https://www.youtube.com/watch?v=aldrGTVm5ws>

12. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITIES

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

SL. NO	ACTIVITY
1	Enlargement of given 5 designs
2	Reduction of given 5 designs
3	Design Navarathnas and Render it.
4	Theme based designs

13. COURSE ASSESSMENT AND EVALUATION CHART

Assessment Methods	Types of Assessment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment
DIRECT ASSESSMENT	CIE CONTINUOUS INTERNAL EVALUATION	IA Test	STUDENTS	Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
		Assignment & Student activity		Portfolio	30	Portfolio and Activity Book	Specified CO by the Course Coordinator
				Activity	10		
				Total CIE Marks	60		
	SEE SEMESTER END EXAMINATION	Semester End Exam		End of the Course	40	Answer Scripts	All Co's
				Total	100		
INDIRECT ASSESSMENT	Student Feedback		STUDENTS	Middle of the Course	Feed Back Forms		
	End of Course Survey			End of the Course			

14.COURSE ASSESSMENT SUMMARY

Sl. No	Assessment	Time frame in Semester	Duration	Max marks	Conversion
1.	Portfolio	Entire Duration		30	30
2	Skill Test-1 (Skill test 1-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 Continuous Internal Evaluation(CIE)Assessment				60
6	Semester End Examination (SEE) Assessment conducted for 100 marks, finally reduced to 40 marks weight age		4 Hrs	100	40
	TOTAL				100

Note:

1. 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 evaluation. 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.	Drawing Table
2.	Jewellery Designing Materials

First Semester Examination, Model Question Paper – 2021

DESIGN STUDIES - I

Duration: 4 Hours]

Subject Code: 4413

[Max. Marks: 100

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

Qn. No.	Question	CL	COs	POs	Marks
1	Design own concept with symmetric and asymmetric form	R / U/A	1	1, 3,5, 7	15
2	Design different types of stones shapes with specification and pencil rendering OR Design different types of metal texture with specification and pencil rendering	R / U/A	2	1,2,4,7	25
3	Design Navarthna gem stones with color rendering	R / U/A	3	1, 3,4,7	40
4	Enlarge of design with own concept. OR Reduction of design with own concept.	R / U/A	4	1,3,7	20
Total Marks					100

Questions are not framed from Unit 1 in the final SEE. Short questions can only be asked from that unit.

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

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

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

Programme: Jewellery Design and Technology

Course Code	4414	Semester	I
Course Title	Goldsmithing Basic	Course Group	JD
No. of Credits	4	Type of Course	Tutorial and Practice
Course Category	PC	Total Contact Hours	6 Hrs. / Week 96 Hrs. / Semester
Prerequisites	SSLC	Teaching Scheme	[L : T : P] = 0 : 2 : 4
CIE Marks	60	SEE Marks	40

RATIONALE:

Goldsmithing basic helps the learner to operate the tools, acquire skills for the different process of filing and sawing techniques and understand various types of sawing and filing exercise and safety precaution in the jewellery workshop

1. COURSE SKILL SET:

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

1. Learn the marking and use of marking tools.
2. Learn the basic filing
3. Learn the basic sawing

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	Junior Assistant Filing section
2	3	Junior Assistant Sawing section

3. PREREQUISITES

STUDENT	SSLC
TEACHER	Experience in Jewellery Manufacturing Process

4. COURSE OUTCOMES

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

	Course Outcome
CO1	Use of marking tools
CO2	Acquire the knowledge of filing

CO3	Acquire the knowledge of drilling practice.
CO4	Acquire the knowledge of sawing

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)			TOTAL
			R	U	A	
01	Marking practice & marking tools	21	10	20	20	50
02	Basic exercises in filing	30	10	20	20	50
03	Drilling Practice	15	10	20	20	50
04	Basic exercises in sawing	30	10	20	20	50
Total		96	40	80	80	200

6. INSTRUCTIONAL STRATEGY

The strategies, which teacher can use to accelerate the attainment of the various course outcomes

- Use of sign language for communication in classroom since most of students are hearing impaired.
- Use of Audio-Visual aids like ppt, videos, Animation, E-books etc..
- Hands on training providing for the students in practical and tutorial classes through demonstration.
- To attend interactive sessions, Group discussion, guest lectures, workshops, industrial visit, MCQ/Quiz, Assignment, open book test to facilitate students for learning.
- Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
- Instructors should expose students to explore User Interface thoroughly.
- 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
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1	MARKING PRACTICE & MARKING TOOLS		21
	1.1 Steel ruler 1.2 Divider 1.3 Outside caliper 1.4 Inside caliper 1.5 Vernier calipers 1.6 Center punch 1.7 Scriber 1.8 Try square.	1. Identify the different forms of calipers 2. marking different types of models with proper dimension 3. Use of dot punch while marking the lines.	
2	BASIC EXERCISES IN FILING		30
	2.1 Arch filing 2.2 T joint 2.3 U joint 2.4 T and U-joint 2.5 L-joint	1. Learn different types of filing 2. Acquire the knowledge of filing 3. Create different joints using filing and sawing exercise	
3	Drilling practices		15
	3.1 Geometrical shapes 3.2 Alphabetic shapes 3.3 Modern designs	1. Learn drilling practices in specified dimensions 2. Creative in making different types of models	
4	Sawing practices		30
	4.1 Straight sawing 4.2 Arch sawing 4.3 Zig zag sawing 4.4 Round sawing 4.5 Square sawing 4.6 Step sawing 4.8 English and Kannada design sawing 4.7 Birds and animals design sawing	1. Learn different types of Sawing 2. Apply the knowledge of sawing practice for model making. 3. Creative in different types of sawing Techniques.	
	Note 1. Importance to be given on Basic Goldsmithing techniques – marking , Sawing , filing and Drilling Practice		96

8. SUGGESTED PRACTICAL EXERCISES

Sl No	Suggested Practical Exercises (should be similar in skills to the ones enlisted)	Unit No	PO	CO	T:P Hrs

1	Identification of goldsmithing tools	1	1, 4,7	1	2:4
2	Marking practices using Brass sheet	1	1, 4,7	1	2:4
3	Practice of different types of Vernier Calipers	1	1, 4,7	1	1:2
4	Use of center punch, scribe and tri square	1	1, 4,7	1	2:4
5	Identification of different types of files	2	1, 4,7	2	2:4
6	Practice using different of files.	2	1, 4,7	2	1:2
7	Making of T joint, U joint, ,L-joint, V-Joint ,T and U-joint and step joint using Brass sheet	2	1, 4,7	2	7:14
8	Use of drilling tools and equipments and precautions	3	1,2,7	3	2:4
9	Different types of drilling on shapes. S-type drilling, round type, square type, zig-zag type arch type, L shape, U shape, V shape, W shape, X shape	3	1,2,7	3	3:6
10	Identification of tools and consumables used for sawing practices	4	1,2,7	4	1:3
11	Practicing sawing exercise, Straight sawing, Arch sawing Zig zag sawing, Round sawing, Square sawing Step sawing	4	1,2,7	4	6:12
12	Practicing alphabets and general design sawing	4	1,2,7	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

CO	COURSE OUTCOME	PO MAPPED	EXPERIMENT LINKED	COGNITIVE LEVEL (R/)	TUTORIAL & PRACTICAL SESSIONS IN
CO-1	Use marking tools	1, 4,7	1-4	A	21
CO-2	Acquire the knowledge of filing	1,4,7	5-7	A	30
CO-3	Acquire the knowledge of drilling practice.	1,2,7	8-9	A	15
CO-4	Acquire the knowledge of sawing	1,2,7	10-12	A	30
Total					96

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
		1	2	3	4	5	6	7
Goldsmithing Basic	CO-1	3	0	0	2	0	0	3
	CO-2	3	0	0	3	0	0	3
	CO-3	3	3	0	0	0	0	3

CO-4	3	3	0	0	0	0	3
<i>Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped</i>							

11. SUGGESTED LEARNING RESOURCES:

Sl. No	Author	Title of Books	Publication / Year
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SUGGESTED LINKS

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- <https://www.youtube.com/watch?v=6ZjOaJIueb4>
- <https://www.youtube.com/watch?v=67A8uRFU920>
- <https://www.youtube.com/watch?v=aldrGTVm5ws>

12.SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS

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

SL. NO	ACTIVITY
1	Using filing and sawing techniques Create own designs using brass sheet
2	Pendent making by using brass sheet
3	Patterns making by using different types of joints (T Joint, U joint.. for making watch chains, waist belts.)

17. COURSE ASSESSMENT AND EVALUATION CHART

Assessment Methods	Types of Assessment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment
DIRECT ASSESSMENT	CIE	CONTINUOUS INTERNAL EVALUATION	STUDENTS	Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
				Portfolio	30	Portfolio and Activity Book	Specified CO by the Course Coordinator
				Activity	10		
		IA Test					
		Assignment & Student activity					

	SEE SEMESTER END EXAMINA- TION	Semester End Exam		Total CIE Marks	60	Answer Scripts	All Co's
				End of the Course	40		
				Total	100		
INDIRECT ASSESSMENT	Student Feedback		STUDENTS	Middle of the Course	Feed Back Forms		
	End of Course Survey			End of the Course			

13. COURSE ASSESSMENT AND EVALUATION CHART

Sl. No	Assessment	Time frame in Semester	Duration	Max marks	Conversion
1.	Portfolio	Entire Duration		30	30
2	Skill Test-1 (Skill test 1-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	-		10	10
5	Total Continuous Internal Evaluation(CIE)Assessment				60
6	Semester End Examination (SEE) Assessment conducted for 100 marks, finally reduced to 40 marks weightage		4 Hrs	100	40
	TOTAL				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.

1. SEE is conducted for 100 Marks (3 Hours duration) as per scheme of evaluation. 30 marks awarded for portfolio.
2. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

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

14.REQUIREMENTS:

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

First Semester Examination, Model Question Paper – 2021 GOLDSMITHING BASIC

Duration: 4 Hours]

Subject Code: 4414

[Max. Marks: 100

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

Qn. No.	Question	CL	COs	POs	Marks
1	a. Identify the general marking tools b. Sketch the given design by using marking tools	R / U/A	1	1, 4,7	20
2	Produce the given sketch by using filling exercise with specified dimension T- joint OR Produce the given sketch by using filling exercise with specified dimension U- joint	R / U/A	2	1,4,7	40
3	Make a proper drilling practice for given sketch	R / U/A	3	1,2,7	10
4	Produce the given theme based sketch by using sawing exercise. OR Produce the given geometrical shapes by using sawing exercise.	R / U/A	4	1,2,7	30
Total Marks					100

Questions are not framed from Unit 1 in the final SEE. Short questions can only be asked from that unit.

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed	Marks Allotted
1	Listing of tools and operations.	20
2	Designing	10
2	Model Making	30
3	Drilling Practice	10
4	Sawing exercise	30
Total		100

**GOVERNMENT OF KARNATAKA
DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION
JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED (AUTONOMOUS)**

Programme: Jewellery Design and Technology

Course Code	4415	Semester	I
Course Title	Jewellery Making Basic	Course Group	JD
No. of Credits	4	Type of Course	Tutorial and Practice
Course Category	PC	Total Contact Hours	6 Hrs. / Week
			96 Hrs. / Semester
Prerequisites	SSLC	Teaching Scheme	[L : T : P] = 0 : 2 : 4
CIE Marks	60	SEE Marks	40

RATIONALE:

Jewellery making basic helps the learner operates the equipment's and tools, acquire skills for the different process of basic jewellery manufacturing techniques and understand the safety precaution in the jewellery workshop

1. COURSE OBJECTIVES:

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

1. Understand different tool & equipment used for Jewellery work shop.
2. Acquire skills for the different process of Jewellery manufacturing techniques.
3. Understand the safety precaution in the Jewellery workshop
4. Acquires skills of Application orientated tasks.

2. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	Junior Quality Controller
2	3	Master Craftsman
3	3	Junior assistant in production

3. PREREQUISITES

STUDENT	SSLC
TEACHER	Experience in Jewellery manufacturing Process

4. COURSE OUTCOMES

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

	Course Outcome
CO1	Know Different types of tools & equipment's used for Jewellery work shop
CO2	Acquire skills for the different process of jewelery manufacturing techniques

CO3	Know safety precaution in the Jewellery workshop.
CO4	Acquires skills of Application orientated tasks

5. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)			TOTAL
			R	U	A	
01	Melting And Annealing Practice	21	10	20	20	50
02	Forging Practice	21	10	20	20	50
03	Wire And Sheet Rolling Practice	24	10	20	20	50
04	Basic Soldering Practice	30	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.
6. Providing the course material in soft/hard copy in advance to the students, to come prepared to the class.
7. Instructors should expose students to explore User Interface thoroughly.
9. Demonstration using jewellery making equipment's and tools. Emphasis should be given on practical working skills.

7. DETAILS OF COURSE CONTENT

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	MELTING and ANNEALING PRACTICE		21

	<p>1.1 Melting process</p> <p>1.2 Melting of various types of metals (gold, copper, silver, brass)</p> <p>1.3 Different types of tools, equipments and consumables used for melting process.</p> <p>1.4 Preparation of different types alloys (silver alloys and copper alloys)</p> <p>1.5 Measure percentage melting loss for given task..</p> <p>1.6 Annealing process annealing of various types of metals</p> <p>1.7 different types of tools and equipment are used for annealing process.</p> <p>1.8 Annealing of different metals at various temperatures.</p>	<p>1. Classify the different types of metals</p> <p>2. Demonstrate Different types of equipments used Melting process</p> <p>3. Prepare different type of alloys</p> <p>4. Demonstrate annealing of different metals at various temperature</p>	
2	FORGING PRACTICE		21
	<p>2.1 Forging of various types of metals.</p> <p>2.2 Demonstration of different types of tools used for forging technique.</p> <p>2.3 Preparation of different models according to given specification.</p> <p>2.4 Measure percentage of error.</p>	<p>1. Learn different types of filing</p> <p>2. Acquire the knowledge of filing</p> <p>3. Create different joints using filing and sawing exercise</p>	
3	WIRE AND SHEET ROLLING PRACTICE		24
	<p>3.1 wire and sheet making process of various types of metals</p> <p>3.2 rolling mill used for sheet and wire rolling.</p> <p>3.3 preparation of different size and shapes (square, round, half round, triangle, oval, marquise) wires and sheets according to given specification</p> <p>3.4 Measure percentage of wastage.</p>	<p>1. Learn how to make wire and sheet using metals through rolling mill</p> <p>2. Create different types Jewellery products</p> <p>3. Learn to find the minimum percentage of wastage</p>	
4	BASIC SOLDERING PRACTICE		30
	<p>4.1 soldering of similar and dissimilar metals units</p> <p>4.2 Rules for standard soldering practice</p> <p>4.3 soldering techniques and tools and consumables used for designing</p> <p>4.4 soldering of design units by using different type and forms solders according to</p>	<p>1. Learn types of soldering process</p> <p>2. create different forms of solders</p> <p>3. Using metals</p> <p>4. Explain the quality of soldering process</p>	

	given specification		
	4.5 Measure quality of soldering.		
	Note: Importance to be given on Basic Jewellery making techniques – Melting, Annealing, Forging , wire and sheet rolling and soldering		96

8. SUGGESTED PRACTICAL EXERCISES

Sl No	Suggested Practical Exercises (should be similar in skills to the ones enlisted)	Unit No	PO	CO	L:P Hrs
1	Study on melting of various types of metals	1	1,4,7	1	1:2
2	Demonstration of different types of tools, equipments and consumables used for melting and annealing process	1	1,4,7	1	2:4
3	Study on annealing of various types of metals	1	1,4,7	1	2:4
4	Exercise on annealing of different metals at various temperatures	1	1,4, 7	1	2:4
5	Study on forging of various types of metals.	2	1,3,7	2	1:2
5	Demonstration of different types of tools used for forging technique..	2	1,3,7	2	1:2
6	Exercise on preparation of different models according to given specification	2	1,3,7	2	3:6
7	Measure percentage of error	2	1,3,7	2	2:4
8	Study on wire and sheet making process of various types of metals	3	1,5,7	3	2:4
9	Demonstration of sheetand wire making process by using rolling mill.	3	1,5,7	3	3:6
10	Exercise on preparation of different size and shapes (square, round, half round, triangle, oval,marquese) wires and sheets according to given specification	3	1,5,7	3	3:6
11	Study on soldering of similar and dissimilar metals units	4	1,4,7	3	2:4
12	Demonstration of different types of soldering techniques	4	1,2,3,7	4	2:4

13	Exercise on soldering of design units by using different type and forms solders according to given specification	4	1,2,3,7	4	3:6
14	Measure quality of soldering	4	1,2,3,7	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 MAPPED	EXPERIMENT LINKED	COGNITIVE	TUTORIAL & PRACTICA
CO-1	Understand the concept of design elements and principle of design.	1,4,7	1-4	A	18
CO-2	Apply the knowledge of visualizing to different types of stone shapes and metal texture with rendering	1,3,7	5-7	A	18
CO-3	Acquire the knowledge about gemstones and rendering	1,5,7	8-10	A	24
CO-4	Understand various types of design	1,2,3,7	11-14	A	27
Total					87

10. LEVELS OF CO, AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
		1	2	3	4	5	6	7
Goldsmithing Basic	CO-1	3	0	0	3	0	0	3
	CO-2	3	0	3	0	0	0	3
	CO-3	3	0	0	0	3	0	3
	CO-4	3	3	2	0	0	0	3

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

11.SUGGESTED LEARNING RESOURCES:

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

SUGGESTED LINKS

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

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

SUGGESTED LIST OF PROPOSED STUDENT ACTIVITYS**Note: the following activities or similar activities for assessing CIE (IA)**

SL. NO	ACTIVITY
1	Using forging techniques Creating Master models
2	Pendent making by using wire and sheet
3	Soldering exercise by using different forums of solders.
4	Melting process by using different types of furnaces.

12.COURSE ASSESSMENT AND EVALUATION CHART

Assessment Methods	Types of Assessment		Target	Assessment Methods	Max Marks	Types of Record	Course Outcomes for Assessment
DIRECT ASSESSMENT	CIE CONTINUOUS INTERNAL EVALUATION	IA Test	STUDENTS	Two skill tests (Average of Two skill tests will be Computed)	20	Blue Books	All Co's
		Assignment & Student activity		Portfolio	30	Portfolio and Activity Book	Specified CO by the Course Coordinator
				Activity	10		
				Total CIE Marks	60		
	SEE SEMESTER END EXAMINATION	Semester End Exam		End of the Course	40	Answer Scripts	All Co's
				Total	100		
INDIRECT ASSESSMENT	Student Feedback		STUDENTS	Middle of the Course	Feed Back Forms		
	End of Course Survey			End of the Course			

13. COURSE ASSESSMENT AND EVALUATION CHART

Sl. No	Assessment	Time frame in Semester	Duration	Max marks	Conversion
1.	Portfolio	Entire Duration		30	30
2	Skill Test-1 (Skill test 1-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	-		10	10
5	Total Continuous Internal Evaluation(CIE)Assessment				60
6	Semester End Examination (SEE) Assessment conducted for 100 marks, finally reduced to 40 marks weightage		4 Hrs	100	40
	TOTAL				100

Note:

1. 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.
2. SEE is conducted for 100 Marks (3 Hours duration) as per scheme of evaluation3. 30 marks awarded for portfolio.
3. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator.

14.RUBRICS FOR ACTIVITY

Dimension	Scale					Student Score (on scale) Five Students (in a Batch)				
	1. Unsatisfactory	2. Developing	3. Satisfactory	4. Good	5. Exemplary	1	2	3	4	5
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	3	4	5	3	2
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	2	3	5	3	3
3. conclusion	Poor	Less Effective	Partially Effective	Summarizes but not exact	Most effective	5	2	5	3	4
4.Conventions	Frequent Error	More Error	Some Error	Occasional Error	No Error	4	1	5	5	4
Total Score						14	10	20	14	13
Total Marks						4	3	5	4	3

15.REQUIREMENTS:

Sl. No.	Specification	Quantity
1.	Work bench	30
2.	General goldsmithing tools, equipments and consumables	-
3.	Table lamp, LPG gas connection	-

First Semester Examination, Model Question Paper – 2021

JEWELLERY MAKING BASIC

Duration: 4 Hours]

Subject Code: 4415

[Max. Marks: 100

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

Qn. No.	Question	CL	COs	POs	Marks
1	Annealing and melting practice of metals or alloys	R / U/A	1	1,4,7	20
2	Design different shapes (square, Rectangle) using metals through forging process	R / U/A	2	1,3,7	20
3	Make wire using copper or silver metals with the help of rolling mill OR Make sheet using copper or silver metals with the help of rolling mill	R / U/A	3	1,5,7	40
4	Make Soldering practice based on plain jewellery OR Make Soldering practice based on Studded jewellery	R / U/A	4	1,2,3,7	20
Total Marks					100

Questions are not framed from Unit 1 in the final SEE. Short questions can only be asked from that unit.

RUBRICS FOR SKILL TEST EVALUATION (CIE & SEE)

Sl. No.	Parameter to be observed	Marks Allotted
1	Annealing and melting practice	20
2	forging process	20
3	Rolling and Drawing exercise	40
5	Soldering	20
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	4416	Semester	I
Course Title	ENVIRONMENTAL SUSTAINABILITY	Course Group	Audit
No. of Credits	2	Type of Course	Lecture
Course Category	AU	Total Contact Hours	2Hrs Per Week
			32Hrs Per Semester
Prerequisites	Basic Environmental Science	Teaching Scheme	(L: T:P) = 2:0:0
CIE Marks	50	SEE Marks	No

COURSE OBJECTIVES:

Technicians working in industries or elsewhere essentially require the knowledge of environmental science so as to enable them to work and produce most efficient, economical and eco-friendly finished products.

1. Solve various engineering problems applying ecosystem to produce eco – friendly products.
2. Use relevant air and noise control methods to solve domestic and industrial problems.
3. Use relevant water and soil control methods to solve domestic and industrial problems.
4. To recognize relevant energy sources required for domestic and industrial applications.
5. Solve local solid and e-waste problems.

COURSE OUTCOMES:

At the end of the course student will be able to know:

CO1	Importance of ecosystem and terminology.
CO2	The extent of air pollution, effects, control measures and acts.
CO3	The extent of noise pollution, effects, control measures and acts.
CO4	The water and soil pollution, effects, control measures and acts
CO5	Different renewable energy resources and efficient process of harvesting.
CO6	Solid Waste Management and Environmental acts.

DETAILS OF COURSE CONTENT

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.	UNIT SKILL SET	TOPICS / SUBTOPICS	HOU RSL-T-P
UNIT-1 Ecosystem	<ul style="list-style-type: none"> Understand about ecosystem Able to differentiate between biotic and abiotic components. 	1.1 Structure of ecosystem 1.2 Biotic & Abiotic components 1.3 Aquatic (Lentic and Lotic) and terrestrial ecosystem. 1.4 Global warming - Causes, effects, Green House Effect, Ozone depletion.	03-0-0
Unit-2 Air Pollution	<ul style="list-style-type: none"> Able to differentiate between natural and man made sources of air pollution Gain knowledge about the prevention measure of air pollution. 	1.1 Air pollution 1.2 Natural and manmade sources of air pollution 1.3 Effects of air pollution 1.4 Air Pollutants and Types. 1.5 Control of air pollutants by Cyclone separator and Electrostatic Precipitator 1.6 Air (prevention and control of pollution) act 1981	03-0-0
Unit-3 Noise Pollution:	<ul style="list-style-type: none"> Understand about the noise pollution Able to prevent noise pollution 	1. Noise pollution: sources of pollution 1.2 measurement of pollution level, Effects and Control of Noise pollution 1.3 Noise pollution (Regulation and Control) Rules, 2000	02-0-0
Unit-4 Water and Soil Pollution	<ul style="list-style-type: none"> Able to list the sources of water pollution Gain knowledge about to control measure of water pollution Understand about importance of fertilizers pesticides and insecticides 	1.1 Water pollution and Sources of water pollution 1.2 Types of water pollutants 1.3 Characteristics of water pollutants, control measures of water pollution. 1.4 Definition and list unit operations in water and Wastewater Treatment process. 1.5 Water (prevention and control of pollution) act 1974 1.6 Water conservation – Importance of Rainwater Harvesting. 1.7 Soil pollution, Causes, Effects and Preventive measures of Soil Pollution due to Excessive use of Fertilizers, Pesticides and Insecticides	08-0-0

<p style="text-align: center;">Unit-5 Renewable sources of Energy</p>	<ul style="list-style-type: none"> • Understand the concept of solar energy and use of solar water heater • Gain knowledge about the current and future prospects of wind energy • Able to list the new energy source based on environmental benefits. 	<p>1.1 Solar Energy: Basics of Solar energy. Definition and advantages of advanced solar collectors</p> <p>1.2 Solar water heater and Solar stills and their uses.</p> <p>1.3 Biomass: Overview of biomass as energy source.</p> <p>1.4 Thermal characteristics of biomass as fuel.</p> <p>1.5 Wind energy: Current status and future prospects of wind energy. Wind energy in India</p> <p>1.6 Need of new Energy sources, Different type's new energy sources.</p> <p>1.7 Environmental benefits of New Energy Sources-Hydrogen energy, Ocean energy resources, Tidal energy conversion.</p>	<p style="text-align: center;">08-0-0</p>
<p style="text-align: center;">Unit-6 Solid Waste Management and Environmental Acts</p>	<ul style="list-style-type: none"> • Able to explain the sources and characteristics of municipal solid waste. • Able to reuse of the plastic products. • understand the importance of Environment act 	<p>1.1 Solid waste generation, Sources and characteristics of Municipal solid waste</p> <p>1.2 Solid Waste Management rules 2016- 3R in SWM</p> <p>1.3 E- Waste generation, Sources and characteristics.</p> <p>1.4 E waste management rules 2016.</p> <p>1.5 Plastic Waste generation, Sources and characteristics, Recycled plastic rules 2016.</p> <p>1.6 Importance of Environment (protection) act 1986</p> <p>1.7 Occupational health and safety measures.</p>	<p style="text-align: center;">08-0-0</p>

MAPPING OF CO WITH PO

Unit No & Name	Detailed Course Content	CO	PO	Contact Hrs
<p style="text-align: center;">1. Ecosystem</p>	Structure of ecosystem, Biotic & Abiotic components, Aquatic (Lentic and Lotic) and terrestrial ecosystem.	CO1	1,5,7	1
	Global warming - Causes, effects.	CO1	1,5,7	2
	Green House Effect, Ozone depletion - Causes, effects	CO1	1,5,7	3
<p style="text-align: center;">2. Air and</p>	Air pollution, Natural sources of air pollution, Man Madesources of air pollution	CO2	1,5,7	4
	Air pollutants and Types, Effects of Particulate Pollutants and control by Cyclone separator	CO2	1,5,7	5

Pollution	Effects of Particulate Pollutants and control by Electrostatic Precipitator, Air (prevention and control of pollution) act 1981.	CO2	1,5,7	6
3. Noise Pollution	Noise pollution: sources of pollution, Measurement of Noise pollution level.	CO3	1,5,7	7
	Effects and Control of Noise pollution. Noise pollution (Regulation and Control) Rules, 2000	CO3	1,5,7	8
4. Water and Soil Pollution:	Sources of water pollution. Types of water pollutants, Characteristics of water pollutants.	CO4	1,5,7	9
	Control measures of water pollution.	CO4	1,5,7	10
	Definition and list unit operations in water and Wastewater Treatment process, Water (prevention and control of pollution) act 1974.	CO4	1,5,7	11
	Water conservation – Importance of Rainwater Harvesting	CO4	1,5,7	12
	Soil pollution, Causes and Effects due to Fertilizers, Pesticides and Insecticides	CO4	1,5,7	13,14
	Preventive measures of Soil Pollution due to Excessive use of Fertilizers, Pesticides and Insecticides.	CO4	1,5,7	15,16
5. Renewable sources of Energy	Solar Energy: Basics of Solar energy. Solar collectors and advantages of Advanced solar collectors.	CO5	1,5,7	17
	Solar water heater, Solar stills and their uses.	CO5	1,5,7	18
	Biomass: Overview of biomass as energy source. Thermal characteristics of biomass as fuel.	CO5	1,5,7	19
	Wind energy: Current status and future prospects of wind energy. Wind energy in India.	CO5	1,5,7	20
	Need of new Energy sources, Different type's new energy sources. Environmental benefits of New Energy Sources-Hydrogen Energy	CO5	1,5,7	21,22
	Environmental benefits of New Energy Sources- Ocean energy resources	CO5	1,5,7	23
	Environmental benefits of New Energy Sources-Tidal energy conversion.	CO5	1,5,7	24
6. Solid Waste Management and Environmental Acts	Solid waste generation, Sources, Characteristics of solid waste Solid Waste Management rules 2016	CO6	1,5,7	25
	E- Waste generation Sources and characteristics, E waste management rules 2016	CO6	1,5,7	26
	Plastic Waste generation Sources and characteristics, Plastic Waste Sources and characteristics	CO6	1,5,7	27,28
	Recycled plastic rules 2016, Importance of Environment (protection) act 1986,	CO6	1,5,7	29,30
	Occupational health and safety measures.	CO6	1,5,7	31,32
Total				32

References:

(a) Suggested Learning Resources:

Books:

1. S.C. Sharma & M.P. Poonia, Environmental Studies, Khanna Publishing House, New Delhi
2. C.N. R. Rao, Understanding Chemistry, Universities Press (India) Pvt. Ltd., 2011.
3. Arceivala, Soli Asolekar, Shyam, Wastewater Treatment for Pollution Control and Reuse, Mc-Graw Hill Education India Pvt. Ltd., New York, 2007, ISBN:978-07-062099.
4. Nazaroff, William, Cohen, Lisa, Environmental Engineering Science, Willy, New York, 2000, ISBN 10: 0471144940.
5. O.P. Gupta, Elements of Environmental Pollution Control, Khanna Publishing House, New Delhi
6. Rao, C. S., Environmental Pollution Control and Engineering, New Age International Publication, 2007, ISBN: 81-224-1835-X.
1. Rao, M. N. Rao, H.V.N, Air Pollution, Tata Mc-Graw Hill Publication, New Delhi, 1988, ISBN: 0-07- 451871-8.
2. Frank Kreith, Jan F Kreider, Principles of Solar Engineering, McGraw-Hill, New York ; 1978, ISBN: 9780070354760.
7. Aldo Vieira, Da Rosa, Fundamentals of renewable energy processes, Academic Press Oxford, UK; 2013. ISBN: 9780123978257.
3. Patvardhan, A.D, Industrial Solid Waste, Teri Press, New Delhi, 2013, ISBN:978-81-7993-502- 6
4. Metcalf & Eddy, Wastewater Engineering, Mc-Graw Hill, New York, 2013, ISBN: 077441206.
5. Keshav Kant, Air Pollution & Control, Khanna Publishing House, New Delhi (Edition 2018)

(b) Open source software and website address:

- | | |
|---|---|
| 1. www.eco-prayer.org | 2. www.teriin.org |
| 2. www.cpcp.nic.in | 4. www.cpcp.gov.in |
| 3. www.indiaenvironmentportal.org.in | 6. www.whatis.techtarget.com |
| 4. www.sustainabledevelopment.un.org | 8. www.conserve-energy-future.com |

Teachers should use the following strategies to achieve the various outcomes of the course.

- Different methods of teaching and media to be used to attain classroom attention.
- Massive open online courses (MOOCs) may be used to teach various topics/subtopics.
- 15-20% of the topics which are relatively simpler or descriptive in nature should be given to the students for self-learning and assess the development of competency through classroom presentations.
- Micro-projects may be given to group of students for hand-on experiences
- Encouraging students to visit sites such as Railway station and research establishment around the institution.

Mapping of Course Outcomes with Programmed Outcomes

CO	Course Outcome	PO Mapped	Cognitive Level R/U/A	Theory Sessions In Hrs	Allotted marks for CIE on cognitive levels		TOTAL
					R	U	
CO1	Importance Of ecosystem and terminology	1,5,7	R, U	03	02	02	04
CO2	The extent of air pollution, effects, control measures and acts.	1,5,7	R, U	03	03	02	05
CO3	The extent of noise pollution, effects, control measures and acts.	1,5,7	R, U	02	03	02	05
CO4	The water and soil pollution, effects, control measures and acts	1,5,7	R, U	08	03	02	05
CO5	Different renewable energy resources and efficient process of harvesting.	1,5,7	R, U	08	03	02	05
CO6	Solid Waste Management and Environmental acts.	1,5,7	R, U	08	02	04	06
Total Hours of instruction				32	30		

R-Remember , U-Understanding.

Level of Mapping PO's with CO's

Course	CO's	Programme Outcomes (PO's)						
		1	2	3	4	5	6	7
Environmental Science	CO1	3	0	0	0	2	0	1
	CO2	3	0	0	0	2	0	1
	CO3	3	0	0	0	2	0	1
	CO4	3	0	0	0	2	0	1
	CO5	3	0	0	0	2	0	1
	CO6	3	0	0	0	2	0	1

Level 3- Highly Mapped, Level 2-Moderately Mapped, Level 1-Low Mapped, Level 0- Not Mapped

Method is to relate the level of PO with the number of hours devoted to the CO s which maps the given PO. If $\geq 50\%$ of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 3

If 30 to 50% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 2 If 5 to 30% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 1

If $< 5\%$ of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is considered not mapped i.e. Level 0

Course Assessment and Evaluation Chart

Sl. No	Assessment	Duration	Max marks	Conversion
1.	CIE Assessment 1 (Written Test -1 - At the end of 6 th week	80 minutes	30	Average of three written tests 30
2.	CIE Assessment 2 (Written Test -2) - At the end of 10 th week	80 minutes	30	
3.	CIE Assessment 3 (Written Test -3) - At the end of 15 th week	80 minutes	30	
4	CIE Assessment 4 (MCQ/Quiz) - At the end of 8 th week	60 minutes	20	Average of three 20
5	CIE Assessment 5 (Open book Test) - At the end of 13 th week	60 minutes	20	
6	CIE Assessment 6 (Student activity/Assignment)-At the Beginning of 16 th week		20	
7.	Total Continuous Internal Evaluation (CIE) Assessment			50
TOTAL MARKS				50

Note:

1. Average marks of Three CIE test.
2. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator. The secured mark in each case is rounded off to the next higher digit.

MANDATORY STUDENT ACTIVITY: EACH STUDENT HAS TO SELECT ANY ONE OF THE LISTED

1. Students chose one thing to reduce at home each week and write journal entries about their successes and challenges implementing the change. In class, they form groups and create "Do You Know?" posters.
2. Students pretend they are architects and come up with a series of design changes to make their school more environmentally friendly. They then grade their projects according to a rubric.
3. A presentation for Green Team Club members to introduce themselves and the purpose of their club. They explain how to use their new recycling bins, in the classroom and in the cafeteria.
4. Ever wonder what's in your school's waste? This hands-on activity helps students assess their school's waste in order to think of ways to reduce it. The results can be incorporated into the school's recycling plan.
5. How do we measure climate change? What activities contribute to climate change?
6. Start a compost or worm bin. Composting is a hands-on way to learn about important life science concepts such as ecosystems, food webs and biodegradation. Students experience how worms and other decomposers recycle fruits and vegetable scraps into compost. Use the compost in your college garden! Have green team students make up a skit and present details about the

- new composting program to all classrooms. Have them make signs for the bins (compost, recycle, and landfill), monitor the waste collection at lunchtime, cart the food waste to the compost, and decide how and where the compost will be used.
7. Paint posters and decorate bulletin boards or the doors to the cafeteria with waste-free lunch messages to announce or support a waste-free event, and have students vote for their favorite poster.
 8. Conduct a classroom audit to identify waste and look for ideas to reduce and reuse. Empower the student to set goals, search for solutions and review progress.
 9. Go on a field trip. Visit your local landfill, recycling centre, or a nearby composting facility where the students can see first-hand what is happening to waste and learn about the lifecycle of waste and its effect on the environment.
 10. Home energy audit: Have students make a list of all the appliances and light bulbs in their house. How much energy does their house use if all the lights are on for 4 hours per day? If their appliances are on for 2 hours per day? How much energy could they save if they switched to energy-efficient appliances or light bulbs?
 11. Use recycled material in art projects: Recycled materials can make beautiful art projects such as jewelry, planters, and bird houses. Incorporating materials that would otherwise be thrown away into art projects can show your students how to find new uses for these items.
 12. Life cycle: One way to show students what happens when you put something in the trash versus recycling or reusing the object is to do a life cycle analysis. This is a flow chart that shows the environmental impacts of an object, from extracting the raw materials to decomposition and everything in between. When something is put in the trash instead of being reused or recycled, the life cycle assessment will show a bigger environmental impact. When something is reused or recycled, the environmental impact is less because raw materials don't need to be extracted to create something new.

Model Question Paper I A Test (CIE)

Programme	: Jewellery Design and Technology	Semester: I			
Course	: ENVIRONMENTALSUSTAINABILITY	Max Marks : 30			
Course Code	: 4416	Duration : 1 Hr 20 minutes			
Name of the course coordinator:		Test : I/II/III			
Note: Answer one full question from each section. One full question carries 10 marks.					
Qn.No	Question	CL	CO	PO	Marks
Section-1					
1.a)					
b)					
c)					
2.a)					
b)					
c)					
Section-2					
3.a)					
b)					
c)					
4.a)					
b)					
c)					
Section-3					
5.a)					
b)					
c)					
6.a)					
b)					
c)					

GOVERNMENT OF KARNATAKA
DEPARTMENT OF COLLEGIATE AND TECHNICAL EDUCATION
JSS POLYTECHNIC FOR THE DIFFERENTLY ABLED (AUTONOMOUS)

Programme: Jewellery Design and Technology

Course Code	SL2101	Semester	I
Course Title	Sign Language – I	Course Group	Audit
Type of Course	Lecture	Total Contact Hours	2Hrs Per Week
			32Hrs Per Semester
Prerequisites	English Knowledge	Teaching Scheme	(L:T:P)=2:0:0
CIE Marks	50	SEE Marks	-

COURSE OBJECTIVES:

1. Understand Basic Sign Language and its types.
2. Know the Signs, variations and meanings of the words.
3. Improve signing skills.
4. Improve their communication skills in sign language.

COURSE OUTCOMES:

At the end of the course student will be able to achieve the following outcomes:

CO1	Acquire the knowledge of Basic Sign Language
CO2	Acquire and apply the knowledge of Finger Spelling
CO3	Obtain the knowledge of Calendar Words, Colors and Greeting words
CO4	Acquire and apply the knowledge of Educational Words with Simple Sentences
CO5	Acquire and apply the knowledge of General Vocabulary with Simple Sentences

COURSE CONTENT:

Unit No & Name	Detailed Course Content	CO	PO	Contact Hrs
1. Introduction To Sign Language	1.1 Self-Introduction	CO1	1,5,6,7	2
	1.2 Introduction to Sign Language with Definitions	CO1	1,5,6,7	1
	1.3 Importance of Sign language	CO1	1,5,6,7	1
	1.4 Different types of Sign	CO1	1,5,6,7	1
	1.5 Advantages and usages of Sign Language	CO1	1,5,6,7	1
	CIE Assessment 1			1
2. Alphabets and Finger Spelling	2.1 Know the signs for Alphabets in American and Indian Sign language	CO2	1,5,6,7	2
	2.2 Finger spelling and its usages, in reading and framing the words	CO2	1,5,6,7	3
	2.3 Practice Session			
	CIE Assessment 2			1

3. Calendar Words, Colors, Time related Words and Greeting Words	3.1 Know Weeks names in finger spelling in signs	CO3	1,5,6,7	2
	3.2 Know months names in finger spelling in signs			
	3.3 Know sign for numbers			
	3.4 Know colour sign in finger spelling	CO3	1,5,6,7	5
	3.5 Know the variations and to show time related words in Sign			
3.6 Know the signs for the Greeting Words.				
3.7 Practice Session				
	CIE Assessment 3			1
4. Educational Words With Simple Sentences	4.1 Know the signs for the Educational Words	CO3	1,5,6,7	4
	4.1 Know the signs to frame the sentences			
	4.2 Practice Session			1
	CIE Assessment 4			1
5. General Vocabulary with Simple Sentence	5.1 Know the signs for General Vocabulary and variants	CO3	1,5,6,7	4
	5.1 Know the signs to frame the sentences.			
	5.2 Practice Session			
	CIE Assessment 5			1

References:

(a) Suggested Learning Resources:

Books:

1. Book on Sign Language, Ali Yavar Jung National Institute for the Hearing Handicapped, Training Center for Adult Deaf.
2. Indian Sign Language Dictionary, Ramakrishna Mission Vidyalaya.
3. Book on Hearing Impairment, Ali Yavar Jung National Institute for the Hearing Handicapped, Training Center for Adult Deaf.
4. Signing Naturally Level 1, Cheri Smith, Ella Mae Lentz , Ken Mikes.
5. Signing Naturally Level 2, Cheri Smith, Ella Mae Lentz , Ken Mikes

Open source software and website address:

- 1) www.indiansignlanguage.org
- 2) www.islrtc.nic.in
- 3) www.talkinghands.co.in
- 4) www.def.org.in

Teaching strategies:

- Demonstrating the words using signs.
- Interaction with the students using sign language.
- Online assistance is given to the students.
- Involving the students in group discussion.

Mapping of Course Outcomes with Programme Outcomes

CO	Course Outcome	PO Mapped	Cognitive Level R/U/A	Units	Theory Sessions In Hrs
CO1	Acquire the knowledge of Basic Sign Language	1,5,6,7	R,UA	1	6
CO2	Acquire and apply the knowledge of Finger Spelling	1,5,6,7	R,U,A	2	6
CO3	Obtain the knowledge of Calendar Words, Colors and Greeting words	1,5,6,7	R,U,A	3	8
CO4	Acquire and apply the knowledge of Educational Words with Simple Sentences	1,5,6,7	R,U,A	4	6
CO5	Acquire and apply the knowledge of General Vocabulary with Simple Sentences	1,5,6,7	R,U,A	5	6
Total Hours of instruction					32

Level of Mapping PO's with CO's

Course	CO's	Programme Outcomes(PO's)						
		1	2	3	4	5	6	7
Sign Language-I	CO1	2	0	0	0	2	2	2
	CO2	2	0	0	0	2	2	2
	CO3	2	0	0	0	2	2	2
	CO4	2	0	0	0	2	2	2
	CO5	2	0	0	0	2	2	2
Level 3-Highly Mapped, Level 2-Moderately Mapped, Level 1- Low Mapped, Level 0-Not Mapped								
<p>Method is to relate the level of PO with the number of hours devoted to the CO's which maps the given PO. If $\geq 50\%$ of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 3 If 30 to 50% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 2 If 5 to 30% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 1 If $< 5\%$ of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is considered not-mapped i.e.; Level 0</p>								

Course Assessment and Evaluation Chart

Sl. No	Assessment	Duration	Max marks	Conversion
1.	CIE Assessment 1 (Activity 1 - At the end of 3 rd week	60 minutes	10	
2.	CIE Assessment 2 (Activity -2) - At the end of 6 th week	60 minutes	10	

3.	CIE Assessment 3 (Activity -3) - At the end of 10 th week	60 minutes	10	Total of all the CIE Assessment
4	CIE Assessment 4 (MCQ/Quiz) - At the end of 13 th week	60 minutes	10	
5	CIE Assessment 5 (Activity/Assignment) - At the beginning of 16 th week	60 minutes	10	
7.	Total Continuous Internal Evaluation (CIE) Assessment			50
Total Marks				50

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

Programme: Jewellery Design and Technology

Course Code	PC2101	Semester	I
Course Title	Psychology and Counseling - I	Course Group	Audit
Type of Course	Lecture	Total Contact Hours	2 Hrs. / Week 32 Hrs. / Semester
Prerequisites	English Knowledge	Teaching Scheme	[L : T : P] 2:0:0
CIE Marks	50	SEE Marks	-

1. COURSE OBJECTIVES

At the end of the course the students shall be able to:

1. Understand basics of psychology and its importance.
2. Build cognitive ability.
3. Practice to control the emotions effectively.
4. Manage stress effectively.

2. COURSE OUTCOMES

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

	Course Outcomes
CO 1	Acquire and apply knowledge about self-development for better quality of life.
CO 2	Obtain knowledge to improve cognitive ability.
CO 3	Acquire verbal and non verbal communication.
CO 4	Develop basic knowledge on emotion management.
CO 5	Obtain basic knowledge on stress management.

3. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARKS

UNIT NO	UNIT TITLE	TEACHING HOURS	MARKS
01	Introduction to Psychology & Self-development	06	10
02	Cognition	08	10
03	Communication	06	10
04	Emotions	06	10
05	Stress and Resilience	06	10
Total		32	50

4. DETAILS OF COURSE CONTENTS

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

UNIT NO.	SKILLS	TOPICS / SUBTOPICS	HOURS
UNIT- 1. Introduction to Psychology & Self-development	Understand psychology, Mind and body relationship which helps in understanding self. Understanding and incorporation self-development and self-confidence.	1.1 Introduction to psychology. 1.2 Mind-body relationship. 1.3 Self-development. 1.4 Self-confidence.	06

UNIT- 2. Cognition	Understand what is thinking. Techniques of learning and improve learning skills. Understand memory and improving memory skills.	2.1 Thinking. 2.2 Learning. 2.3 Memory.	08
UNIT- 3 Communication	Understand effective communication skills and adapt them.	3.1 Effective communication 3.2 Types of communication among differently abled: a) Verbal/sign language Communication b) Non Verbal Communication c) Written communication d) Visual communication 3.3 Improving relations with the help of communication.	06
UNIT- 4 Emotions	Understand the emotions and learn how to cope with it. Learn anger management techniques.	4.1 Different types of emotions. 4.2 Coping with emotion. 4.3 Emotional intelligence. 4.4 Anger Management	06
UNIT-5 Stress and Resilience	Understand stress and its roots. Learn stress management and coping mechanism. Develop resilience.	5.1 Understanding stress 5.2 Stress Management 5.3 Coping Mechanism 5.4 Resilience.	06

5. MAPPING OF CO WITH PO

CO	Course Outcome	PO Mapped	Unit	CL R/U/A	Theory in Hrs.
1	Acquire and apply knowledge about self-development for better quality of life.	1,5,6,7	1	R/U/A	06
2	Obtain knowledge to improve	1,5,6,7	2	R/U/A	08

	cognitive ability.				
3	Acquire verbal and non verbal communication.	1,5,6,7	3	R/U/A	06
4	Develop knowledge on emotion management.	1,5,6,7	4	R/U/A	06
5	Obtain knowledge on stress management.	1,5,6,7	5	R/U/A	06
Total					32

6. LEVELS OF CO AND PO MAPPING

Psychology and Counselling	Programme Outcomes						
	1	2	3	4	5	6	7
Course outcomes							
CO1	2	0	0	0	3	1	2
CO2	2	0	0	0	3	1	2
CO3	2	0	0	0	3	1	2
CO4	2	0	0	0	3	1	2
CO5	2	0	0	0	3	1	2

Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.

Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.

If >40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3

If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2

If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1

If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.

7. COURSE ASSESSMENT AND EVALUATION CHART

Sl. No	Assessment	Duration	Max marks	Conversion
1.	CIE Assessment 1 (Activity) - At the end of 3 rd week	60 minutes	10	Total of all the CIE assessments.
2.	CIE Assessment 2 (Activity) - At the end of 7 th week	60 minutes	10	
3.	CIE Assessment 3 (MCQ/Quiz) - At the end of 10 th week	60 minutes	10	
4.	CIE Assessment 4 (Activity) - At the end of 13 th week	60 minutes	10	
5.	CIE Assessment 5 (MCQ/Quiz) - At the beginning of 16 th week	60 minutes	10	
Total Continuous Internal Evaluation (CIE) Assessment				50
Total Marks				50

8. INSTRUCTIONAL STRATEGY

- Emphasis on demonstration based learning activities.
- Involve the students in the group discussions.
- Explain the students with real time problems.
- Providing the course materials in soft copy, power point presentation and hard copy to revise the contains in depth.
- Encourage innovative teaching by providing online references.

9. DETAILED COURSE CONTENTS

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONT ACT HRS.	TOT AL
1. Introduction & Self-development	Introduction to psychology.	1	1,5,6,7	1	06
	Mind-body relationship.	1	1,5,6,7	1	
	Self-development.	1	1,5,6,7	1	
	Self-confidence.	1	1,5,6,7	1	
	Activity on self confidence	1	1,5,6,7	1	
	CIE Assessment 1	1	1,5,6,7	1	
2. Cognition	Thinking.	2	1,5,6,7	1	08
	Learning.	2	1,5,6,7	1	
	Memory.	2	1,5,6,7	1	
	Activity on thinking	2	1,5,6,7	1	
	Activity on learning	2	1,5,6,7	1	
	Activity on memory	2	1,5,6,7	2	
	CIE Assessment 2	2	1,5,6,7	1	
3. Communication	Effective communication	3	1,5,6,7	1	06
	Types of communication among differently abled:	3	1,5,6,7	1	
	a) Verbal/sign language Communication b) Non Verbal Communication c) Written communication				

	d)Visual communication				
	Improving relations with the help of communication.	3	1,5,6,7	1	
	Individual activity on communication	3	1,5,6,7	1	
	Group activity on communication	3	1,5,6,7	1	
	CIE Assessment 3	3	1,5,6,7	1	
4. Emotions	Different types of emotions.	4	1,5,6,7	1	06
	Coping with emotion. Emotional intelligence.	4	1,5,6,7	1	
	Anger Management.	4	1,5,6,7	1	
	Activity on understanding emotions.	4	1,5,6,7	1	
	Activity on anger management.	4	1,5,6,7	1	
	CIE Assessment 4	4	1,5,6,7	1	
5. Stress and Resilience	Understanding stress	5	1,5,6,7	1	06
	Stress Management	5	1,5,6,7	1	
	Coping Mechanism	5	1,5,6,7	1	
	Resilience	5	1,5,6,7	1	
	Activity on resilience techniques	5	1,5,6,7	1	
	CIE Assessment 5	5	1,5,6,7	1	
Total					32

10. SUGGESTED LIST OF STUDENTS ACTIVITIES

Sl. No	Suggested Activities
1	Puzzle activity- to build their creativity.
2	Individual tasks in the classroom stage to build confidence
3	Healthy competitions to know their caliber and learn to encourage and support each other.
4	Group discussions

11. SUGGESTED LEARNING REFERENCES

Sl.No	References
1	Introduction to Psychology by Morgan and king
2	Social Psychology by Shelley E. Taylor
3	Positive Psychology by Baumgardner Steve Crothers Marie
4	13 Things Mentally Strong People Don't Do by Amy Morin
5	The Righteous Life by A.P.J. Abdul Kalam
6	https://www.youtube.com/watch?v=8PpE8eqEsnU
7	https://www.youtube.com/watch?v=Z6SGZ_UpIZM

