

Cutting, Tailoring & Dress Making

Course Code no.	-	605/705 – 606/706
Duration of course	-	1 yrs. & 6 months
Essential Theory hours	-	100hrs
Essential Practical hours	-	270hrs

Introduction to the course -

Clothing is one of the basic needs of human being people one becoming fashion conscious. With change in fashion & style, the stitching of garment also changes. Hence keeping in view the market demand and change fashion technology, courses on cutting, tailoring & dress making have been suitably designed in the structure of non formal education. The beneficiaries are new literates and people with low education levels. Besides in Indian tradition girls/women are expected to know tailoring to fulfill the basic stitching requirement at home. Stitching of garments at home is a money saving device for lower middle income group. Besides tailoring can be a vocation for self employment.

Objective -

- To provide knowledge & training in
- Use of tools & equipment used in tailoring trade
- Sewing terminology
- Taking correct body measurements
- Basic hand & machine stitches
- Designing, drafting & pattern making
- Layout & fabric estimation
- Cutting, tailoring & finishing of garments for children, ladies & gents.
- Alteration, defects & remedies to fitting problems.
- Processes of quality control, packaging, labeling, marking, costing & promotion.
- Sourcing of fabrics, trends & relating so servicing process.
- Skill to construct professional looking garments.
- Enhancing employability & entrepreneur skills.

Entry Qualification - 8th Pass/Literate

Competencies :-

1. Identify and take care of the various tools and equipment used in cutting and tailoring.
2. Identify and practice basic (temporary and permanent) and decorative stitches.
3. Take body measurements (length width and circumference) systematically and follow necessary precautions.
4. Master the use of swing machine and take care of the machine.
5. Follow precautions while using a machine. Identify and correct the defects in a machine. Identify and correct the defects in a machine.
6. Control of fullness – darts, pleats, gathers
7. Make different types of seams using bias, piping and facing and plackets and
8. Make hook and eye and attach buttons, button hole etc.
9. Select fabric and appropriate colour combinations according to age, tradition. Vocation and personality.
10. Follow rules of pattern making, layout and fabric estimation
11. Design, draft, pattern making cutting, stitching and finishing of the garments (panty, slip, jhabla, set, frock, gents pyjama, petticoat, churidar pyjama, ladies kurta, salwar etc.)
12. Surface decoration of garments using embroidery, laces, buttons, beads, sequins etc.
13. Fold, iron, pack and cost evaluation of stitched garment.
14. Marking and storing of drafts and patterns for future use.

Job opportunities : After completing the course one can get employment in garment manufacturing unit or get self employed by opening a tailoring sop or work at home.

Wage employment : Can get employment as cutter/tailor/checker/designers in garment manufacturing industries/tailoring shops/tailoring units in govt. sector of public sectors like jails /hospitals etc. can get employments as instructor in educational institutes.

Self employment : can open his/her own tailoring shop or can do tailoring work at his/her own house or can take up orders work from factories.

Scheme of study -

Weightage :- - Theory - 15% Practical - 85%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
705/605	30	90	80	200
706/606	30	90	80	200

Passing Criteria : - Theory 40%
 Practical 50%
 Internal 40%
 Aggregate 50%

SUBJECT - 1 Cutting & Tailoring

Section A: Foundation

Unit	Contents	Theory	Practical
1.	Introduction to Sewing Machine	<ul style="list-style-type: none"> - Machine Operation - Different parts of machine and their functions. - Safety precautions - Proper maintenance and oiling 	<ul style="list-style-type: none"> - Operating machine - Removing parts and practice in refixing - Adjusting the parts for proper functioning - Practice in cleaning and oiling
2.	Tools and Equipments used in tailoring	Description of various tools used in tailoring <ul style="list-style-type: none"> - Drafting tools: - Cutting Tools: - Stitching tools: 	Practice in using <ul style="list-style-type: none"> - Different Scissors - Shapper, L Scale, Art Curve, Tracing wheel - Thimble etc.
3.	Trade Terminology	<ul style="list-style-type: none"> - Specific terms used in drafting, cutting & stitching 	<ul style="list-style-type: none"> - Practice in using proper terms.
4.	Measurement Taking	<ul style="list-style-type: none"> - Use of tape for measurement - Proper / correct measurement taking, Precautions - Use of L scale for measurement - Sequence of measurement 	<ul style="list-style-type: none"> - Practice in using tape - Taking measurement - Sequencing of measurement. - Use of L scale
5.	Drafting / Pattern Making	<ul style="list-style-type: none"> - Need for drafting and pattern making - Method of preparing draft - Preparing pattern cutting 	<ul style="list-style-type: none"> - Simple drafting - Pattern making - Paper pattern cutting
6.	Basic Stitching	<ul style="list-style-type: none"> - Hand stitches - Machine stitches - Decorative stitches 	<ul style="list-style-type: none"> - Preparation of sample pieces of stitches
7.	Construction Skills	<ul style="list-style-type: none"> - Knowledge about: - Seams, Drafts, Tucks, Pleats, Buttons Hole, Buttons Hooks and snage, Eye, Titch buttons 	<ul style="list-style-type: none"> - Preparation of sample pieces using all construction skills.

8.	Selection of Cloth	- Selection of right type of fabric for a particular garment	- Identification of different types of fabric
9.	Estimation of Cloth	- How to estimate cloth for garments	- Estimation by giving various measurements
10.	Colour concept	Colour combination for buttons, thread & cloth	- Practicals in selection of colour combination (contrast & harmony)
11.	Simple Cutting and Stitching	- How to mark the measurements on cloth before cutting - Leaving margin for inlays and turnings - Skills in Stitching	- Marking with different measurement - Cutting the cloth as per marking, leaving margin for inlays and turnings. - Practice in stitching on paper for straight zig-zig, round etc. - Stitching of - Handkerchief / Bib / Pillow cover / Bags / Underwear / Quilting

Section B: Cutting & Stitching

Unit	Contents	Theory	Practical
1.	Construction skills	- Use of velcrow & Elastic	- Fixing velcrow & - Elastic insetion
		Practical work on Tailoring Skills	
		Drafting, paper pattern making, cutting, stitching and finishing of following garments: Children Garments EITHER Ladies Garments Or Boys / Gants Garments	Stitching of different baby garments Stitching of different ladies garments Stitching of different gents garments

7.1 MODULE -II (CODE 606 AND 706) DRESS MAKING

Section A: Advanced Construction Skills

Unit	Contents	Theory	Practical
1.	Construction skills	- Type of facing, binding - Zip application - Elastic insertion - Design darts, Yokes & midrift - Waist band application	Practice in construction skills

2.	Tailoring skills	- Notch collar-Roll collar	Drafting, paper pattern making, cutting and stitching of garments: EITHER Ladies garments OR Gants garments
3.	Other skills		- Tailor marks - Fittings & alterations - New garments from old fabric / garments
4.	Pressing & Packing Skills (Folding)	Precautions to be taken while pressing and folding	- Pressing of: - Cotton garments - Terene garments - Silk garments - Packing of various garments (folding).

Section B: Garment Making & Dress Designing

1.	Designing	Dress Designing - Principles & concept	
2.	Pattern Making	- Creative pattern making - Types of pattern & Bodice block	- Sample making
3.	Bodice Blocks		Measurement taking - Drafting and pattern making of following blocks A. Children: - Basic Bodice Block - Sleeve, Skirt Block B. Ladies: - Basic Bodice Block - Sleeve / Trouser Block
4.	Manipulation and adjustment	What is manipulation / adjustment	Practice of: - Dart / Sleeve / Collar manipulation - Adjustment for different figures - Stooping/ flat bust / full bust - Manipulation & making various creative patterns through the blocks in the following: - Children/Ladies/Gants garments/Sleeves/Collars

			/ Pockets/ Cuff/ Jackets
5.	Fittings	Problems of fitting and correction	Practice in correcting patterns
6.	Colour Concept	- Colour concept and harmony in designing	- Preparation of samples.

Beauty Culture

Course Code no.	-	612	
Duration of course	-	6 months	
Essential Theory hours	-	40 (6 months)	80 (1yrs.)
Essential Practical hours	-	160 (6 months)	320 (1yrs.)

Introduction to the course -

In this modern time, people are concerned about their appearance & thus pay great attention to their body, dress & makeup. There has been a steep rise in people visiting beauty parlours/saloons/clinics for taking the services of beauticians for makeup hair cutting & setting, application of hair colour/dye etc. Makeup & hair dressing has become a part of daily life special among working girls & women. Thus one can find such parlours in every locality. This has created a great demand for trained personnel in beauty culture. There are good employment opportunities in this trade.

Keeping in view the modern trend in beauty culture & the demand for trained personnel. This cause in beauty culture will contribute immensely. The course include components like make up, bleaching, hair styling, cutting, dyeing, massage, Mehndi applications etc.

Objective -

- To provide knowledge, information & practice in
- Latest trends in beauty culture and hair dressing
- Importance & type of make up
- Eyebrow shaping, facials, bleaching, manicure & pedicure hair care/Cutting/Setting/Styles/Hair dye & swing, Mehndi application.
- Removing of unwanted hair
- Body perfection, massage exercises & yoga
- Work ethics handling different types of clients and mastering appropriate communication skills.
- Concern for health & hygiene
- Develop positive attitude, responsibility & accountability
- Entrepreneurship

Entry Qualification - 8th class pass/literate

Competencies :-

1. Identify and master the use and care of the tools and equipment used for beauty and hair care.
2. Develop good working habits and communication skills for business development
3. Practice yoga, meditation and dress appropriately as a beautician
4. Practice various methods and techniques of massage in facial, pedicure and manicure.
5. Become familiar with the structure of nail, hair and common problems.
6. Master the techniques of removal of superfluous hair, by threading, bleaching, waxing (cold and hot) and depilation
7. Shape and arch eyebrows and apply bridal makeup and makeup on various occasions and times of day.
8. Use of Mehendi colour and dye for colouring hair.
9. Practice Mehndi application on hands and feet and Mehndi tattooing.
10. Cut, trim, set style, curl and straighten hair.
11. Practice head oil massage and shampoo hair.
12. Read and follow instructions given for use of various cosmetics and beauty products and packing.
13. Prepare home-made cosmetics especially packs, masks, lotion etc. using easily available herbs and items in the home.
14. Follow safe and appropriate working habits.

Job opportunities :

- Wage employment : Can be employed in beauty parlours/saloons/clinics to do the work relating to make up, hair dressing, massage etc.
 - Can be employed as makeup man/women for performer (artists) in theatre/studios.
- Self employment : can open own parlors on a small scale to begin with.
 - Can get job work for bridal make up and Mehndi application

Scheme of study -

Weightage :- - Theory - 15% Practical - 85%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
612	30	90	80	200

Scheme of Examination : - Theory - 1 ½ hrs. Practical - 3 hrs.

Passing Criteria :- Theory 40%
Practical 50%

Internal 40%
Aggregate 50%

COURSE CONTENTS

Section : 1 MAKE UP AND BODY PERFECTION

Units	Contents	Theory	Practical
1.	Introduction to grooming and evaluation personality development	<ul style="list-style-type: none"> - Self Analysis of oneself related to personality grooming care of your-self selection of clothing - Social skill - Public relation - Verbal communication 	<ul style="list-style-type: none"> - Critical analysis of self - Practicing the basics of good grooming - Practicing the selection in colour, dresses according to profession, personality, and occasion. - Practicing in dealing with customers taking appointments on telephone
2.	Manicure and Pedicure	<ul style="list-style-type: none"> - The nails structure and study of nails - Equipment & implements for manicure procedure, precautions & remedies <p style="margin-left: 20px;">Pedicure :</p> <ul style="list-style-type: none"> - Meaning, Procedure - Precaution & remedies - Diseases / disorders causes / treatment 	<ul style="list-style-type: none"> Recognize different nail shapes - Practice of using all the equipment & implement of manicure - Preparation of trolley & client - Removal of old nail polish, nail filling pushing, cutting of cuticles - Massage manipulations for fingers & hands - Steaming. - Nail polish application - Preparation of client and trolley - Nail cutting, filling rubbing of feet with scrubber - Massage manipulating steaming
3.	Superfluous hair removal	<ul style="list-style-type: none"> - Meaning and Cause - Methods of removing unwanted hair - Types of waxes, Hot & Cold - Procedure / Precaution Depilatory method 	<ul style="list-style-type: none"> - Practice in threading and plucking - Preparation of cold wax - Preparation of client and trolley for waxing - Application and removal of wax - Use of depilatory cream

4.	Bleaching & eye brow shaping	<ul style="list-style-type: none"> - Bleaching : - meaning & types <p>Preparation of bleaching Mixture</p> <ul style="list-style-type: none"> - Eye Brow shaping : - Implements, material & supplies used for eye brow shaping - Procedure for giving eye brow shaping by threading and tweezing - Precautions - Types of Massage : <ul style="list-style-type: none"> - Facial manipulation - Facial for different types of skin: <p>Precautions: Make up:</p> <ul style="list-style-type: none"> - Cosmetics, Implements and materials used for make up, - Different type of make up: - Corrective make up - Precautions 	<ul style="list-style-type: none"> - Preparation of client & Trolley - Preparation of bleaching mixture - Practice in application and removal of bleaching mixture - Preparation of the client and tray for eye brow shaping - Knowledge of materials and implements for eye brow arching - Use of thread and tweezer for eye brow shaping - Analysis of skin by tissue paper - Recognition of skin diseases and disorder - Practice of different massage manipulation - Use of vibrator for massage - Preparation of client and trolley for facial - Practice in giving facial for different types of skin. - Preparation of home made Makeup packs & masks - Use of packs & masks according to the skin type - Preparatio of client and trolley for makeup - Practice in using different types of make up. Make up for morning evening and bridal. - Practice in giving body massage with oil and powder. - Practice in different manipulation used in body massage. - Practice in using both hands and vibrator for massage.
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6.	Body perfection	<ul style="list-style-type: none"> - Definition of good and bad posture. - Different techniques used for body massage, (hands, Vibrator) - Different Asans for body perfection - Yogic Balanced diet - recautions 	Different Asans:
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Section : 2 HAIR CARE AND SETTING

Unit	Practical	Contents	Theory
1.	Hair and its care	Hair- <ul style="list-style-type: none"> - Structure and division of hair - Types of hair : Diseases / Disorder Causes / Remedies Scalp massage - Benefits of massage - Types of Shampoo; 	<ul style="list-style-type: none"> - Preparation of client and trolley - Proper application of massage manipulations - Procedure for hot oil treatment - Preparing the client - Draping procedure - Procedure of rinsing
2.	Hair cutting and styling	<ul style="list-style-type: none"> - Hair shaping instruments and their uses: - Basic sectioning for a hair cut - Points to be consider while giving a cut: Facial shape. Hair texture - Preparation of client and tray - Types of cut Styling <ul style="list-style-type: none"> - Principles of design - Cosmetics used in setting and styling Types of styling 	<ul style="list-style-type: none"> - Handling the implements - Preparing the tray - Sectioning procedure - Preparing the client - Study of hair types, texture and face - Giving a blunt cut, U Cut, Boy cut, Step cut <ul style="list-style-type: none"> - Preparing the client and tray - Sectioning procedure for roller setting, blow drying, back combing - Setting rollers, Blow drying - Procedure for straightening hair - Lone hair styling : in various types of braids 4/5 strand, French plait, making, different jura of rolls, interloc, Bridal style

3.	Artificial Aids	<ul style="list-style-type: none"> - Meaning & Purpose of artificial aids - Types - Procedure of cleaning and maintaining - Setting switches - Fixing of artificial aids 	<ul style="list-style-type: none"> - Selecting hair pieces - Styling Plain Bun Rolls (2, 3, 4, 5) Interlocks (3, 4, 5, 7, 8, 9 and 10) Flower Bun, Plaits - Shampooing and hair pieces - Fixing on head and switch stand
4.	Colour & Perming	<ul style="list-style-type: none"> - Study of colour Primary & Secondary - Classification of hair colouring Vegetable & Chemical hair colour - Material required - Procedure and safety precautions for use of dye - Perming 	<ul style="list-style-type: none"> - Study of scalp and hair - Selection of colour - Skin test - Preparing of tray & Client - Draping the client - Preparing henna mixture for colouring purpose / conditioning - Practice in application of chemical dye - Study of scalp and hair - Preparation / Procedure & precautions to be taken.

Bakery & Confectionary

Course Code no.	-	256
Duration of course	-	1yr.
Essential Theory hours	-	80
Essential Practical hours	-	320

Introduction to the course - Baking is also known as dry cooking where heat is transferred to the food by hot air circulating around it. Baking is undertaken in oven to make cookies, bread, biscuits & cakes. These items are all time favorite with both the young and old the rural and urban. In the modern times with a great demand for ready to eat food, the demand for biscuits & cakes has increased many fold.

The terms confectionery refers to the icing and toppings done on bakery products and other items like chocolates, candies, fillings etc. baking is easy to master hence it is undertaken easily at home especially to make pizzas, burgers, pastries etc. with an increase in demand, the skill can be used to create interesting food items & also generate income.

Objective -

- To understand the concept of bakery & confectionery & prepare to make it a vocation
- Identify and take care of relevant tools masking devices equipment & raw material
- To like various types of cakes, biscuits, breads, burgers, Swiss rolls, doughnuts, croissant & Danish pastries.
- To understand and master basic scientific principles involved in the art of baking & confectionery
- To master the art of decorating cakes with icing (butter, cream, , chocolates, glaze icing)

Entry Qualification - 8th class pass

The credit can be transferred against any one academic course of class X.

Competencies :-

1. Identify and learn the use and care of various tools, equipment and ingredients used for bakery and confectionery.
2. Master the different techniques and processes used in bakery & confectionery.
3. Make various types of biscuits, cakes, Swiss rolls etc.
4. Master the art of decorating the cakes with icing (butter, cream, royal, glaze icing etc.)
5. Learn the techniques of making pastes, pastries etc.
6. Make breads (milk & brown bread), burger, rolls and fruits bun.
7. Become familiar with the modern methods of bakery and safety measures involved.
8. Identify take necessary steps to overcome the common faults likely to baked goods.
9. Develop marketing skills and become an entrepreneur in bakery & confectionery.

Scheme of study -

Weightage :- - Theory - 15% Practical - 85%

Scheme of Evaluation

Course code	Theory	Practical	Total
256	40	60	200

Scheme of Examination: - Theory - 1 ½ hrs. Practical - 3 hrs.

Passing Criteria: - Theory 33%
Practical 33%
Aggregate 33%

Course content

Unit	Contents	Theory	Practical
1	Ingredients & Equipments	(a) Classification- perishables, Non perishables, Semi-perishable (b) Selection, storage (hygiene) use (c) Equipment -	Market survey of equipment.
2	Biscuits	(a) Classification (b) Basic procedure in production (c) Types of biscuits	Baking various types of biscuits.
3	Cakes	(a) Classification Basic procedure - useful	Baking cakes

		<ul style="list-style-type: none"> (b) Tips (c) Faults in baking cakes - identification and rectification. (d) Decorative, Non-decorative 	
4	Icing	<ul style="list-style-type: none"> (a) Classification (b) Basic Procedure (c) Tools and equipments 	Preparing and applying various types of icing.
5	Pastes and Mixtures	<ul style="list-style-type: none"> (a) Flaky and Puff (b) Items <ul style="list-style-type: none"> - Patties, Vol-au-vont - Khara Biscuits, Cheese Straws (c) Choux <ul style="list-style-type: none"> - Éclairs, Cream Rolls, - Profit Rolls 	Preparing various types of pastes and mixtures.
6	Breads and Bread Rolls	<ul style="list-style-type: none"> (a) Classification (b) Basic Procedures (c) Variations of Bread 	Baking Danish pastry breads and bread rolls
7	Danish and Croissant	<ul style="list-style-type: none"> (a) Classification (b) Basic Procedures <ul style="list-style-type: none"> - Danish; - Cinnamon - Croissant Variations in each 	Baking Danish pastry and croissants
8		<p>Accounting Procedures</p> <ul style="list-style-type: none"> (a) Purchasing and sales procedure (b) Maintenance of accounts <ul style="list-style-type: none"> - Journal, ledger - Subsidiary books final account etc. (c) Calculation of <ul style="list-style-type: none"> - Selling & cost price, - Gross & net profit - Taxes, debit notes - Preparing invoices 	Calculating selling price, gross profit, net profit. Preparing a simple statement of account

Preservation of Fruits & Vegetables

Course Code no.	-	363
Duration of course	-	1yr.
Essential Theory hours	-	40 hrs.
Essential Practical hours	-	260 hrs.

Introduction to the course - Our country is blessed with abundance of Fruits & Vegetable crops. In order to avoid post harvest losses, fruits & vegetable preservation has been important aspect of human existence. India has a rich tradition of preserving fruits & vegetables since time immemorial by using various traditional techniques. Through presently these techniques have undergone a great change. The modern processes of preservation have created an enormous change in the food habits of people particularly the urban through out the world. The surplus growth warrants have a definite step to promote and practice fruits & veg. preservation to avoid wastage & help promote income generation. There is a great demand both in domestic as well as the international market for foods like jams, jellies, pickles & preserves. This has created potential for wage & self employment for a large number of people.

Objective -

- Use and care of equipments & materials used in fruits & vegetable preservation.
- The advantages of preservation of locally available seasonal fruits & vegetables.
- Different methods of Fruits & Veg. preservation like drying/dehydration, blanching, use of sugar, oil & salt vinegar (pickling), spices removal of air (canning & bottling)
- Packing methods and labeling
- Cost evaluation & marketing
- Preparing project reports for setting up a unit
- Managing & disposal of by products waste

Entry Qualification - Xth class pass

The credit can be transferred against any one academic course of class XIIth .

Competencies :-

1. Identify and learn the use and care of various tools, equipments and ingredients used for fruits and vegetable preservations.

2. Use food preservation as a mean to check wastage, provide variety and nutrition and to generate additional income.
3. Know use and importance of sugar, salt, spices, oil, vinegar and chemicals to preserve fruits and vegetables to increase the shelf life of foods.
4. Make jams, fillies and marmalades.
5. Make squashes, cordials, syrup, sauces and ketchups.
6. Make pickles, candies and toffees using seasonal surplus fruits and vegetables.
7. Use dehydration as a means to preserve foods.
8. Appreciate the needs for Govt. certification and become familiar with symbols of standard markings of Ag-mark, FPO, BIS, ECO marks.
9. Become familiar with packing - bottling canning, corking labeling, sroring etc. preserved foods.
10. Learn the use of by products and their utilization and become on entrepreneur in

Job opportunities :

- Wage employment : Purchase assistant, production supervisors, assistant quality control supervisor
 - Technical assistant, laboratory assistant in food preservation industry, carrying centres supervisor
 - Technical assistant, laboratory assistant in food preservation industry, carrying centres.
 - Instructor for food preservation and related work experience in schools, colleges, IIT's & polytechnics
 - Sales representatives of food industries
- Self employment : Running a small scale industry or production unit, manufacturing various preserved products from vegetable & fruits.
 - Running hobby/demonstration classes.

Scheme of study -

Weightage :- - Theory - 40% Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Total
363	40	60	100

Scheme of Examination: - Theory - --- hrs. Practical - ----- hrs.

Passing Criteria: - Theory 33%

Practical 33%

Aggregate 33%

Course Content

<i>Theory</i>	<i>Practical</i>
<p>1. Introduction to Preservation History, Definition, Need for preservation, Scope of preservation, Role of Government and food industry.</p>	<p><i>Lesson 1</i></p> <ul style="list-style-type: none"> • identify the preserved foods and categorize them • locate the preservation unit in the area
<p>2. Principles of preservation Factors for food spoilage Preservation by- removal of moisture; use of preservatives including sugar, salt, oil, vinegar, and other chemicals; use of heat; asepsis; acidity control Food colors</p>	<p><i>Lesson 2</i></p> <ul style="list-style-type: none"> * Blanching - effect of time on color, and texture of the fruits and vegetables. * Effect of acid and alkali on the color of the cooked vegetables
<p>3. Equipment's commonly used Equipment's used for pre-preparation Equipment's used for preparation Equipment's used for packaging Maintenance of equipment; Labeling</p>	<p><i>Lesson 3</i></p> <ul style="list-style-type: none"> * identify the equipments used in the kitchen and their purpose * market survey for identifying various packaging materials used for preserved foods evaluate the given labels
<p>4. Selection of Raw material Characteristics, Post harvest changes Factors responsible for spoilage; Control measures</p>	<p><i>Lesson 4</i></p> <ul style="list-style-type: none"> • market survey to compare the cost of fruits and vegetables in season and off season • effect of temperature on color, appearance, and texture of fruits and vegetables • to observe the change in the food products when left at room temperature
<p>5. Preservation with sugar (Jams, Jelly and Marmalades) principle involved in preservation of jam, jelly, and marmalade; selection of fruit; cooking of jam/jelly/marmalade; use of preservatives; filling and bottling packaging of jars and bottles and labeling them Defects in jams, jellies, marmalades criteria for evaluation</p>	<p><i>Lesson 5</i></p> <ul style="list-style-type: none"> • Test for pectin in the given fruits * collect and study the label of 3 different types of jams/jellies/marmalades * evaluate the 3 different kinds of jams/jellies/marmalades for color, texture, flavor visual inspection * make label for the 2 sugar preserved foods
<p>6. Preservation using salt, sugar, oil what are pickles; function of preservatives; selection of raw material; method of preparation;</p>	<p><i>Lesson 6</i></p> <ul style="list-style-type: none"> * make the pickle for the seasonal vegetable that is available and evaluate it.

evaluation of pickles evaluation	* make the tomato ketchup and evaluate it according to the points given in the text.
7. Preservation with sugar (Squash and cordials, syrups) selection of fruit for squash; method of preparation; evaluation of squash; cordials - preparation method evaluation of cordials syrups defects while making of synthetic syrups	<i>Lesson 7</i> * make lemon or orange squash and evaluate it * make almond syrup and evaluate it * make papaya nectar and evaluate it
8. Home scale drying of fruits and vegetables advantages of drying; methods of drying home scale dehydrator shade drying; packaging; storage	<i>Lesson 8</i> * comparison of rehydrated products with the fresh ones * dry any two vegetables in the sun and evaluate it on the basis of color texture and taste.
9. Entrepreneurship in preservation of fruits and vegetables Qualities of an entrepreneur selection and location of project arrangement of finance	<i>Lesson 9</i> • project work
raw material procurement marketing	
waste utilization	

Catering Management

Course Code no.	-	357
Duration of course	-	1yr.
Essential Theory hours	-	40 hrs.
Essential Practical hours	-	260 hrs.

Introduction to the course - Eating out side is quite common now a days. Large nos. restaurants, dhabas & hotels, serving hot and wholesome meals patronized by both young and old rural and urban. This course helps to prepare those interested in cooking to setup their own catering business.

Setting up a catering business require a through knowledge about food science, kitchen management, sanitation, standardization of receipt service styles and marketing.

Objective -

- Familiarize with the basics to importance of hygiene
- Understanding the layout & management of catering unit
- To plan & organize the use of kitchen space, equipment and tools, service wave, cattery & table wares.
- Menu planning & preparing of menu cards & menu display boards.
- Purchasing & storing of quality raw materials.
- Evaluating portion /serving size & cost evaluation.
- Standardization of the receipted
- Sanitation and safely with regard to spoilage in raw and cooked food & garbage disposal.

Entry Qualification - Xth class pass

The credit can be transferred against any one academic course of class XIIth.

Competencies :-

1. Understand the basic principles of food and nutrition.
2. Indentify various tools and equipments used in catering management.
3. Learn the layout and management of catering unit.
4. Be able to plan and organize the use of kitchen space, equipment and tools, cutlery table wares and service area effectively.

COURSE CONTENTS

Unit	Contents	Theory	Practical
1.	Catering units	<p>Introduction to planning and Management</p> <p>Kitchen organization and layout.</p> <p>Equipment and tools</p> <ul style="list-style-type: none"> • Service ware, Selection of cutlery and table 	<p>Developing an effective layout plan for a small canteen.</p> <ul style="list-style-type: none"> • List of equipment and tools required for layout • Select according cash with acceptance
2.	Menu Planning:	<p>Importance factors affecting Menu making and adaptation.</p> <p>Cost value</p> <p>Preparing menu card and menu display board.</p>	<ul style="list-style-type: none"> • Write 4 menu's for breakfast. • Write 4 menu's for lunch. • Design a menu board giving price and display the same.
3	Purchasing quality and storage	<p>Know the quantity and required, know your markets</p>	<p>To determine the quantity of food required, market survey method of buying method of storage</p>
4	Quantity Food Production	<p>Weight and measures (raw and cooked) portion size and its importance.</p> <p>Placing a market order</p> <ul style="list-style-type: none"> • Preparation of raw foods (generally cutting vegetables fruits for different purposes) • Cooking methods <p>Recipes: Developing testing assessing receipts</p> <p>How to write and follow a simple recipe.</p> <ul style="list-style-type: none"> • Evaluating the product. Characteristics of good produce. • Adapting recipes, variation in ingredients cooking time, costing or service. Standardizing a recipe to control • Pricing a product, measures to control 	<ul style="list-style-type: none"> • Weigh raw foods or observe a local shopkeeper and get an idea of 100 g portion. • See the pictures and clear your concept of raw amounts. • Making an order food being cooked and get an idea of cooked food conversions. Clear concept of portion size. <p>Relationship between raw & cook food item.</p> <ul style="list-style-type: none"> • standardisation of recipe <p>estimation of time for preparation work plans.</p>

		<ul style="list-style-type: none"> • Portion Control 	
5.	Delivery of food	<ul style="list-style-type: none"> • On premise and off premise • Factors affecting delivery • Types of services and equipments for services. 	<ul style="list-style-type: none"> • delivery methods • types of delivery
6.	Physical Facilities	<ul style="list-style-type: none"> • important, • types of work centres • equipments, criteria for selection. • Physical facilities 	<ul style="list-style-type: none"> • identify work centres • study about storage facilities. • various kinds of cooking equipments • service styles.
7	Sanitation & safety	<ul style="list-style-type: none"> • Use of disinfectants, hygienic handling in food preparation, storage and consumption. <p>How to avoid spoilage in raw and cooked foods</p> <ul style="list-style-type: none"> • Garbage disposal • Safety in units 	<ul style="list-style-type: none"> • study the sanitary practices followed in catering units. • observe the catering unit for accidents, fire, work centres etc • work out safe methods of working.
8	Marketing and Sales	<ul style="list-style-type: none"> • Analysing marketing requirements human factors in marketing, seller and buyer behaviour. <p>Human Resources</p> <p>Personal Selection: requirement</p> <p>Repair and maintenance of minor repairs of leakages cracks, etc. Attending to emergencies and first aid</p> <ul style="list-style-type: none"> • Maintaining Accounts, simple ledger, mechanical billing, balancing and closing accounts. 	<ul style="list-style-type: none"> • Identify 2 market • target setting for any of your product • Develop to market strategies for the sale of your product • Determine the no. & type of employees required • Learn to replace a blown fuse • Wiring of sockets and plugs • Changing a cylinder • Replacing tap washer • Unblocking a sink • fighting fire • First aid <p>Practice in writing a ledger and billing</p> <p>Understanding of common</p>

		<ul style="list-style-type: none"> • Acts regarding prevention of food adulteration and essential commodities. • Public relations • Importance of relations with clients and workers 	adulterants and how to test in milk, cereals, beverage, pulses and masalas
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NUTRITION AND FOOD SCIENCE

Unit Contents Theory

	Food we eat	Balanced diet	Practical
		<ul style="list-style-type: none"> • Importance of balanced diet. <p>Food Science for preparing quality products</p> <p>Importance of food science for understanding the scientific principles in preparation of food for quality products.</p>	Plan an menu's for balanced diet according to age, sex occupation etc.
	Cereals	Carbohydrates: Carbohydrate in foods, changes in carbohydrate on cooking gelatinization of starch, storage effects on starch.	<ul style="list-style-type: none"> • Prepare a phirni carefully observe the changes (gelatinization) and see what happens when stored for long, Write your observation
	Sugar & Fats	Fats: Type and use factors causing deterioration and methods of prevention. Disposal of used fat.	<ul style="list-style-type: none"> • Heat oil and use several times for frying products. Observe initially and on repeated frying for color, taste
	Pulses	Protein: Role in food preparation foam formation, effect of heat treatment on protein.	<ul style="list-style-type: none"> • Cook an egg for a long time and see the effect on texture. • Beat egg white and see the effect continue beating the changes. <p>Repeat adding salt Observe now repeat adding fat and observe.</p>

	<p>Vegetables & fruits</p>	<p>Vegetables Pigments: Vegetables pigments. Types: effect of cooking and processing of pigments.</p> <p>Browning reaction causes desirable and undesirable effects and prevention.</p>	<ul style="list-style-type: none"> • Cook an' green leafy vegetables covered <p>Note the effect on color texture and soda and note and effect on color, texture and same period of cooking. Add vinegar or any acid and note the effect on color.</p> <ul style="list-style-type: none"> • Cut an apple and leave exposed and observe. • Cut an apple put in water and observe.
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Food Processing

Course Code no.	-	358
Duration of course	-	1yr.
Essential Theory hours	-	40 hrs.
Essential Practical hours	-	260 hrs.

Introduction to the course - The food that you eat is not usually locally produced, we are using food produced elsewhere, processed & preserved & supplied to people & places allows. The processing of food allows easy access to food produced elsewhere to help enhance taste and variety. Food processing also contributes in better nutrition and ease in cooking. It also helps to reduced wastage and spoilage. Foods are processed in a large variety of ways small & big processing unit have been set up all over the country to meet this need. Hence there is requirement for trained people to run these units.

Objective -

- Understand the composition (nutrients) of food & the cooking methods used to help preserve the nutrients.
- The methods to prevent wastage & spoilage and increase shelf life of foods.
- To reduce adulteration & ensure food safety.
- Become familiar with food laws regulations ISI, FPO, PFA, CODEX.
- Consumer education, production & forums.
- Stages of food processing
- Hygiene, sanitation & disposal of by products and waste of food processing
- Setting up small food processing unit
- Labeling & packaging of processed foods.
- Maintaining records, budgeting & marketing of processed food products
- Advantages & disadvantages of primary & secondary processing
- Understanding, using & taking care of tools & equipments used in food processing.

Entry Qualification - Xth class pass

The credit can be transferred against any one academic course of class XIIth.

Competencies :-

1. Become familiar with tools & equipments used for food processing and take care of them.

2. Define food processing & list its advantages & disadvantages.
3. Define primary & secondary food processing techniques.
4. Master the processing techniques used for different kind of foods like cereals, legumes, oil & fats, sugar & jaggary, milk & milk production coffee & tea.
5. Classify the categories of food processing/ techniques like preservation, extraction & transformation
6. Make flow sheets & process diagrams for processing various foods.
7. Identify sources of contamination & enumerate measures to ensure hygiene & sanitation.
8. Recognize select define the packaging techniques & packaging material.
9. Design & use labels for marketing of different products.
10. Become familiar with food laws & regulations & understand the symbols & certification marks.
11. Make a project report for setting up a small food processing
12. Undertaking marketing of processed foods.

Job opportunities :

- Wage employment : As a worker in a food processing unit. As a trainer or a teacher.
- Self employment : As a owner of small processing unit.

Scheme of study -

Weightage :- - Theory - 40% Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Total
358	40	60	100

Scheme of Examination: - Theory - 2 hrs. Practical - 3 hrs.

Passing Criteria: - Theory 33%
 Practical 33%
 Aggregate 33%

Course Content

Unit	Theory	Practical
1	<p>Foods - composition (Carbohydrates, Protein, minerals vitamins)</p> <p>Cooking methods: Effect of cooking on sensory attributes, shelf life and nutritive Value.</p> <p>Quality assurance: What, when and where to purchase Food materials. Adulterants in food.</p> <p>Food safety Physical-quality, chemical preservatives, microbiological and other types of growth. Food laws and Regulation ISI, FPO, PFA, Codex Alimentarius.</p> <p>Consumerism Consumer protection/ forums/ education</p>	<p>Pick food item which are used at home for their major nutrients</p> <p>Observation of effect of different methods of cooking on colour, appearance, texture, taste and shelf life at home eg. frying of vegetables and fruits.</p> <p>Select any 4 food materials to study characteristic of good selection</p> <p>Simple test for adulterants in food- Cereals milk, ghee, spices</p> <p>Test any four food items at home for physical quality preservative properties and bacterial growth.</p> <p>Prepare a scrap book using newspaper cuttings in any article on consumerism consumer protection, consumer forum consumer education</p>
Book - 2 TOOLS & OF FOOD PROCESSING		
	Unit Lesson Theory	
1	<p>Processing of foods: Advantages and disadvantages Primary Processing: Secondary processing. Extration of oil, Extrusion germination, sprouting, malting.</p>	<p>List all the Processing methods used for foods in your area.</p>
2	<p>Methods of food preservation:</p>	<p>Collect 3 recipes for preservation by dehydrates, sugar, salt and chemical Survey of market for foods preserved by various things. List them. Visit to a food processing unit</p>
3	<p>Equipment used for processing: Type: Light-bowls mixers blend Sterlizers. Heavy-steamers, cookers Sources and cost Maintenance of equipment.</p>	<p>List the equipments seen.</p> <ul style="list-style-type: none"> - market survey (equipment, brand Cost 8s source) - Select any two equipment and write about their use and maintenance.

4	Layout floor plan of equipment And other facilities for food Processing	Visit a factory and draw a floor plan.
5	Stage of food processing/ food preparation. Quality control.	
6	Hygiene and sanitation: Personal hygiene environmental sanitation waste disposal, by products utilization.	Field visit to a food processing unit, observation on a) quality control b) personal hygiene and food handling c) environmental sanitation. d) waste disposal e) by product utilization
BOOK - 3 PACKAGING AND MARKETING		
Unit	Theory	Practical
1	Packaging materials: Types	Video support, market survey of different types of packaging materials use of specific material for a food item.
2	Labels on food packages	Study food packages for manufacturing dates and evaluate labels.
3	Nutrition labelling Accessories used in Packaging: Importance of safety factors in Packaging. Marketing:	Study local packaging accessories and evaluate.
4	Sale-techniques, Advertising, Distribution, budgeting and maintenance of records	Observe any one marketing technique for a food product.

Laundry Services

Course Code no.	-	255
Duration of course	-	1yr.
Essential Theory hours	-	40 hrs.
Essential Practical hours	-	260 hrs.

Introduction to the course - A well washed, finished and ironed garment adds to the appearance of a person. The garments we wear are made from different types of fibers and fabrics. Each fiber requires special kind of handling. The market is flooded with large variety of detergents & soaps whiteners, bleaches and stiffening agents to clean and finish garments.

In order to get the derived finish, we must select the soap/detergent & technique/washing of the garment in relation to the fiber content and composition of fabric. While finishing we also need to remove stains & marks that may have occurred during wear. We need to know how each fabric ----- in order to select the method of washing, stain removal & finishing.

Objective -

- Name & classify fabrics available in market & relate properties to laundering needs of fabrics.
- The different steps involved the laundering of clothes like examining mending, stain removal soiling, washing, rinsing, drying, ironing etc.
- Identify learn to use and take care of tools and equipment required for laundry services.
- Methods ----- of stain removal
- Master the principles of laundering different types of fabrics like cotton, silk, wool, synthetics etc.
- Finishing of washed garments by bluing, starching & ironing.
- Making project report for setting up a small laundry service unit

Entry Qualification - VIIIth class pass

The credit can be transferred against any one academic course of class Xth.

	<p>different types of fibres, properties and importance to consumers.</p> <p>Study of yarns simple and complex</p>	
2.	<p>Principles of fabric construction basic weaves.</p> <p>Finishes-Basic and functional finishes.</p>	<p>Identification of weaves.</p> <p>Collection of weave samples.</p> <p>Collection of sample of various</p>
3.	<p>Water-types-hard and soft</p> <p>Soaps and detergents, making of soaps by different Methods.</p> <p>Preparation of synthetic dry work.</p> <p>Stiffening agents: different types used for different fabrics</p>	<p>Preparation of soap by cold and hot process.</p> <p>Preparing detergent powder, washing of different types of fabrics using prepared soaps and detergents.</p> <p>Preparation of stiffening agents and application of the same on different types of fabrics.</p>
4.	<p>Mending of garments and fabrics.</p> <p>Stain removal general rules, precautions, recent innovations in stain removers.</p>	<p>Preparing samples for darning and patching</p> <p>Market survey of available stain removing agents. Removal of different stains from different fabrics.</p>
5	<p>Process of Laundry, recent development in washing Dry cleaning-role of absorbents and solvents-special items-upholstry</p>	<p>Market survey on machines available for Laundry work.</p> <p>Drycleaning of silk, wool, synthetics brocades and velvets Drycleaning of carpets, etc</p>
6	<p>Ironing and Appropriate folding of Infant and Children's wear Teenagers and Adults seasonal wear.</p>	<p>Study of packing and packaging materials and accessories used for various garments, furnishing items and household articles.</p>
7	<p>Furnishing and household linens Finishing and packing of garments according to domestic and international markets.</p>	

Early Childhood Care and Education

Course Code no. - 439, 440 & 441

Duration of course - 1yr.

Code - 439

Essential Theory hours - 190 hrs.

Essential Practical hours - 110 hrs.

Code - 440

Essential Theory hours - 190 hrs.

Essential Practical hours - 110 hrs.

Code - 440

Essential Theory hours - 220 hrs.

Essential Practical hours - 80 hrs.

Introduction to the course - These days, the demand for preschool education has increased tremendously. Early Childhood Care & Education (ECCE) as well as early Childhood Education (ECE) is mostly offered in the unorganized sectors. Most of these institutions in the country are run by individuals, private bodies and NGO's. By and large, personnel associated with these institutions are found to be under qualified & untrained. Therefore there is a pressing need to provide opportunities to these personnel for adequate vocational training. Since they are unable to join regular institutions, it is necessary to provide required orientation & training through an open & distance learning system.

Objective -

- To develop understanding of the foundations of pre-school children.
- To develop understanding of growth and development in early childhood (0-6yrs.)
- To develop skills to manage in early childhood Care and Education Centre.
- To enable working effectively with parents and community for education pre-school children
- Contributors to early childhood education like _____ Maria Montessori, Dewey, Mc. Millan sisters etc.
- Planning & using of space in ECCE centre
- Organizing activities of physical, mental, social & emotional development of pre-schoolers.

- Programme planning & theme teaching
- The art & importance of storytelling and recitation
- Making a project report for setting up of ECCE centre.

Entry Qualification - Xth class pass

The credit can be transferred against any one academic course of class Xth.

Competencies :-

1. Learn the difference between growth and development and factor influencing growth & development
2. Explain the milestones of development and age appropriate activities to ensure proper health and development of a child
3. Understand the needs of children below 3 years regard to physical, motor socio-emotional, language and cognitive development.
4. Identify food and nutritional needs and common health problems of 3-6 years old
5. Organize educational programmes for community health awareness.
6. Take necessary measures to help children with delayed development and link the components of a programme to the special needs of children.
7. Plan need-based balanced programmes for care and education of 3 to 6 year olds.
8. Draw a plan of daily schedule of activities for an ECCE centre.
9. Make theme - specific programmes for one day/ six days.
10. Make a plan and undertake outdoor and indoor activities as per needs/ age group of the learners.
11. Make a records of developmental achievements of children and specify directions to accelerate their all round development
12. Become familiar with criteria for choosing a safe location for an ECCE centre.
13. Make a training programme for skill development of ECCE staff.
14. Plan ways of utilizing strength and support of parents and community in the ECCE centre
15. Make a project report for setting up a small ECCE centre.

Job opportunities :

- Wage employment : Helper at an Early childhood care and Education(ECCE) centre of at an Early Childhood Education(ECE) centre.
 - Worker at an Early Childhood Care and Education(ECCE) centre or at an Early Childhood Education (ECE)
- Self employment : Can set up his/her own ECCE/ECE centre.

Scheme of study -

Weightage :- - Theory - 70% Practical - 30%

Scheme of Evaluation

Course code	Theory	Practical	Total
439	70	30	100
440	70	30	100
441	70	30	100

Scheme of Examination: - Theory - 3 hrs. Practical - 3 hrs.

Passing Criteria: - Theory 33%

Practical 33%

Aggregate 33%

Course Content

Subject - 1 : Understanding The Child (Code - 439)

Theory

Lesson 1. Growth and Development

Lesson 2. Understanding Development of Children Below Three

Lesson 3. Understanding Development of Children in Pre-school Years

Lesson 4. Nutrition and Health of a 3-6 Year Old

Lesson 5. Delayed Development and Means to Improve it.

Practical Work

- Prepare an observation schedule for observing the physical and motor development of three year old children.
- Prepare a check-list of development norms for observation of children.
- Find out about local toys / play materials.
- Making of educational play materials.
- Visiting an ECCE centre and reporting.
- Discussion / interview with parents of children in ECCE centre.
- Visiting ECCE centre and reporting about health care facilities.

- Making Health Education related play materials.
- Visit any referral services available in the area and write a report covering the relevant points from the list below:
 - a) Types of referral services available.
 - b) Organisational structure.
 - c) Govt. / Private funded.
 - d) Accessibility
- Prepare a list of institutions providing referral services available in your state.
- Observe a child having delayed physical development in a pre-school for two weeks.
- Write a report highlighting symptoms of the characteristics of delayed development.

Field Placement

- During your placement with pre-school develop an observation schedule. Record the observation of different development. Observation period: 4-5 days continuously or alternate days over one to two weeks.
- Carry out activities with children (2-3 years).
- Organization of group activities and observations of various aspects of development among children.
- Playing health games with children.
- Observation of eating problems among children.

Subject II: Early Childhood Care And Education: Principles And Processes

Code: 440

Theory

Lesson 6. Early Childhood Care and Education

Lesson 7. Approaches to Early Childhood Care and Education

Lesson 8. Bases of an Effective Programme

Lesson 9. The Programme

Lesson 10. Evolving a Developmental Profile of a Child

Practical Work

- Visit one nearby nursery school and one anganwadi. Make your own checklist and analyse the extent to which it follows the objectives of the ECCE.
- Visit a creche and describe the objectives as they appear from the programme.
- Visit and observe the functioning of an anganwadi and a pre-school / nursery school. Note the differences with regard to:-
 - a) Relationship of the adult worker and children.
 - b) Types of activities.
 - c) Procedure in which the activities were conducted and their success.
- Plan six activities for (a) group (b) small group of 4+ children and list the major and other development experiences intended for children.
- Observe children in an anganwadi / nursery school or day care centre. Develop a plan of action to improve the health condition of 2 children.
- Plan the celebration of a festival of a particular group / community, involving members of that group / community.
- Plan a monthly schedule of activities along with the methods you would use.
- Observe a child and identify at which stage of language, motor, mental, and socio-emotional development the child is.

Field Placement

- During a one week visit to an anganwadi, observe to comment on its functioning and list the activities.
- Write the programme planning for different aspects of developments on your visit to balwadi / pre-school.
- For a group of 3-6 year olds carry out a plan, using playway method, to develop number concept.
- Select a sample story and narrate it interestingly. Encourage the children to dramatise it (as they desire). Evaluate the success of your story telling.
- Organize a programme by the children involving the community.
- Select a theme related to the child's home. Plan and carry out a 5 day programme involving:
 - a) Story on daily life activities.

- b) Painting and printing
 - c) Puppet play developed by children.
 - d) 2 activities for pre-number concepts.
 - e) 2 activities for developing fine muscular co-ordination.
- Develop a plan on a theme from nature, having atleast 5 different activities using a variety of materials.
 - During your placement with the pre-school, evolve the development profile of two children.

Subject III: Organising and Managing an ECCE Centre

Code: 441

Theory

- Lesson 11 Physical Facilities and Learning Material
- Lesson 12 Staff in an ECCE Centre
- Lesson 13 Mobilising Community Support
- Lesson 14 ECCE Centre and Linkage with Home
- Lesson 15 Administration, Supervision and Financing in ECCE Centre

Practical Work

- Make a list of points that you will keep in mind to assess the use of indoor space in the ECCE centre.
- Prepare a teaching - learning aid for 3-4 year old children for concept of colour.
- Prepare an observation schedule to observe the interaction of ECCE worker and helper with children.
- On basis of these observations, develop a checklist to describe desirable and undesirable qualities of ECCE worker and helper.
- Assess the training needs of ECCE staff.
- Visit nearby ECCE centre and make an assessment of the extent of community participation.
- Make a list of other possible areas for community participation and contribution.

- Organize a short drama and explain about the need of Early Childhood Care and Education through it.
- Design and prepare posters and banners to show about the different beneficial aspects of ECCE.
- Prepare a checklist to identify strengths of parents.
- Develop a programme (with aids) for inculcating value of ECCE in parents.
- Prepare a list of the basic requirements to establish / open an ECCE centre.
- Develop a proforma for supervision of daily activities.
- Prepare budget of an ECCE centre.

Field Placement

- Comment on the use of indoor space in the ECCE centre and give your suggestions for improvement.
- List other facilities that you think should be provided in the ECCE centre to Improve the attendance of children.
- Try out the observation schedule prepared by you to observe the interaction of ECCE worker.
- Demonstrate through role-play the desirable interaction between ECCE worker and children.
- Comment on the type of interaction existing between ECCE worker and parents.
- Use the checklist developed by you (for identifying the strengths of parents) on 10 parents.
- Suggest the ways to involve these 10 parents according to the result on the checklist,
- Try out the proforma developed by you for supervision of the activities at the ECCE centers.
- Visit an ECCE centre to observe the basic facilities provided.

Certificate in Indian Embroidery

Course Code no.	-	628
Duration of course	-	6 months
Essential Theory hours	-	60 hrs.
Essential Practical hours	-	100hrs.

Introduction to the course - Embroidery is a beautiful thread work on a variety of fabrics, which make the fabric more attractive. It is an important and useful method of creating design on different fabrics it lend three dimensional effect and can be done on fabric, garment & pattern pieces and stitched garments. Due to wide diversity in our country, we find variety in embroidery stitches, colors and motifs. The craftsmanship from every state has its own Excellency, attracting people from all parts of the world. Each state in the country is unique in itself and is reflected in the embroideries of that particular state. Due to the invasion of modern technological advancements traditional hand embroidery is gradually fading out therefore there is need to revive the tradition and inculcate the art of appreciation in students. Moreover to train the students to popularize the traditional embroideries into industrial crafts in order to save he reminiscent beauty of the past and everlasting art.

Objective -

1. Explain the historical evolution of embroidery in India to identify the Source and inspiration behind the motifs and designs used in embroidery
2. To learn the art of designing, plan colour schemes and techniques of enlarging and reducing designs to fit.
3. Study of various threads needles and tools used in embroidery
4. Master the technique making different decorative embroidery stitches.
5. To master the art of making different Indian traditional embroidery stitches.
6. To become familiar with different schemes & programmes introduced by Govt. for artisan and people working in field of craft.

Entry Qualification - VIIIth class pass

Competencies :-

1. Explain the historical evolution of embroidery in India and identify the inspiration behind the motifs and designs.

2. Learn about the government schemes and programme for artisans and persons working in the field of crafts.
3. Be able to create and artistic design using the principles of art.
4. Become familiar with different types of decorative design and master the art of transferring the motif on fabric using different techniques.
5. Make colour wheel and prepare the shades and tints of the 3 primary colours.
6. Use the colour wheel to prepare various colour schemes and appreciate the significance of colours in our daily life.
7. Learn the various equipment and materials used for embroidery and related the thread and fabric to needle size used.
8. Master the techniques of making basic embroidery and traditional Indian embroidery stitches kantha, kasuti, chikankari .
9. Cost evolution and embroidered article/garment and calculation of sale prices
10. Be a successful entrepreneur in the embroidery business.

Job opportunities :

- Wage employment : to take up job on order work to designer of embroidery motifs and designs.
 - As embroideries in boutiques and export houses
 - Supervisors of embroidery units
- Self employment : setting up their own boutiques and embroidery units

Scheme of study -

- Weightage :-**
- Theory - 40%
 - Practical - 50%
 - Internal - 10%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
628	40	50	10	100

Scheme of Examination: - Theory – 2 hrs. Practical – 3 hrs.

Passing Criteria: -	Theory	40%
	Practical	50%
	Aggregate	50%

Course content

1. Introduction of Embroidery

- a. History of Embroidery – Mahabharat, Ramayan & Indus valley civilization. Give reference to decoration on garments.
- b. Use of embroidery on state regalia like curtain, cushions, wall hangings, state robes and throne canopies.
- c. The patronage of Mughals East India Company in the growth & development of embroidery as an craft.
- d. Sources of and inspirations for motifs and designs nature, jewelry, painting & etc.
- e. Centers for embroidery & the development of traditional embroidery of each state of country

2. Elements of Art

- a. Study of live, form, texture, colour, pattern, light and space

3. Principal of Art

- a. Study of harmony, balance, repetition, rhythm proportion & emphasis

4. Placement of design alive vertical, horizontal, diagonal, half drop, bride placement etc.

5. Kind of designs

- a. Naturalistic
- b. Conservative
- c. Decorative
- d. abstract

6. Understanding and using colour

- a. Classification like primary, secondary & tertiary colour

7. Characteristics like hue, value & intensity

- a. Type like cool/warm, advancing/recoding
- b. Colour harmonies/schemes – monochromatic complimentary, analogous etc. factors affecting choice of use of colour

8. Study of embroidery, tools and equipment specially kinds of needles & threads

9. Basic embroidery stitches likes ----- stem, chain, satin, long & short etc.

10. Study of traditional embroideries of India Kantha of Bengal, Sujni of Bihar, Phulkari of Punjab, Kasuti of Karhatalia, Kashida & Zardozi of Kashmir & Chikankari of Lucknow

Certificate in Toy Making and Joyful Learning

Course Code no.	-	416, 417 & 418
Duration of course	-	1 year
Essential Theory hours	-	120 hrs.
Essential Practical hours	-	180 hrs. (each module)

Introduction to the course - In this fast paced world of work, learning new skill has become a necessity. Making a better future involves moulding children in such away that they can think indecently an creatively, a condition essential creating a richer culture & civilizations. Play can foster mental growth in children by providing opportunities by trying out ideas. As play brings cognitive, social, emotional & physical development, it comes important to give a lot a of creative thought. To play activities and kind of toys that the children play with. Parents, teachers and workers home a crucial role in providing learning experience to young children by making environment of primary schools/pre schools/ Aanganwadies, alterative & conductive to learning.

This course aims at developing skills in designing and imposing low cost toys/games. It is hoped that course will not only serve as resource material for parents teacher & but also inspires then to give vent to their own creativity & motivate them to make their environment at home/schools/crèche joyful and stimulating for young children.

Objective -

After going through this course you will be able to:

1. Define and differentiate between learning & joyful learning.
2. Describe various methods of joyful learning
3. To use and make toy as teaching learning tool.
4. Describe the relationship between toys learning
5. Identify and select age appropriate toys
6. To generate new sets of toy material on the basis of local context & learning environment.
7. To understand type of play strategies adopted by children of different age group- solitary, associative, cooperative, imaginative games with rules etc.
8. Making & using toys for physical, social cognitive, emotional development children of various age groups co- 6yrs.
9. Using toys making as a means for developing aesthetics & as a vocation.

10. Using toys & games for child centred, play way & activity based teaching methods.
11. Making games & toys using low cost locally available material both for normal & challenged group.
12. Income generation through toy making and setting up a toy making workshop.

Entry Qualification - Xth class pass (the credit can be transferred as against any academic course of class XII)

Competencies :-

1. Define the characteristics of joyful learning and use a centred approach to teaching of young children
2. Use art, play games, music drama, dance, story telling and toys as tools for teaching of the young
3. Using toys to facilitate gross motor, development, cognitive, socio –emotional, language and aesthetic development in children.
4. Describe various methods of organizing joyful learning using toys.
5. To use the different types of play strategies used by children of different age groups to select toys for learning.
6. Making and using age appropriate toys.
7. Use toys to ensure holistic development of children
 - a. Play learning situations to promote physical, social emotional and cognitive development and the development of values and aesthetics.
8. To master the art of toy making and use it as a vocation for income generation,
9. Make low cost for teaching and learning using low cost locally available material and waste.
10. Making and using toys to help promote child centred play way method of teaching in play centre. ECCE centre, nursery schools and creches.

Job opportunities :

- Wage employment : as a worker in ECCE centre & necessary school/pay school/crèche etc.
- Self employment : Running an ECCE centre and setting up a toy making unit to make & supply teaching aids, toys to nursery schools.

Scheme of study -

Weightage :-

- Theory - 40%
- Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Total
416	40	60	100
417	40	60	100
418	40	60	100

Scheme of Examination: - Theory – 2 hrs. Practical – 2 hrs. (each module) .

Passing Criteria: - Theory 40%
Practical 50%

Course content

1. Toys & joyful learning. Using a making to make learning joyful.
2. Making & using toys for holistic development of child/physical, social, emotional, cognitive development of child & inculcating values.
3. Understanding what is learning and using means and methods to make this learning joyful. Joyful learning ensures the drawing 'in' of the learner to master learning experiences that help him grow.
4. Planning a curriculum in relation to age, interest and needs of child. Teaching concepts through play, games, and toys.
5. Using the activity centre and play way method to promote learning in a stress free environment.
6. The role of art play games, music dance dram story telling, visit, toys etc. as teaching & learning tools for fun & enjoyment.
7. Using age appropriate toys for development and as therapeutic tools
8. Using toys for sensory and language development
9. Role of toys in teaching aesthetics & values.
10. Need, importance & theories of play. Historical views of play Comenius, Rousseau, Frobel, Dr. Maria Montessori etc.
11. Kind of play - free & structured, out door & indoor vigorous & quiet play, sensory motor & symbolic play, supervised & unsupervised play etc.
12. Making & using some educational games such as jigsaw, puzzles, flow mosaic, domino's find the missing part, gradation exercise, cerebation games, musical games, falls, rope, puppets, mobiles, building blocks, sewing boards etc.
13. Criteria for selecting toys & organizing play activates, activities that do not restrict movement allow exploration and make the child happy.

14. Toys that can be made for children of different age groups like pin wheel, cutout figures, tube shake, finger puppets, abacus, measures, colour discs etc.
15. History of toy making - re-historic, ancient period toys, toys medieval and modern period.
16. Development of toy industry, influence of regional, factor and culture heritage.
17. Parenting styles and its impact on selection of toys and play material.
18. Facilitating development through play - possessiveness social interaction, habit formation etc.
19. Choosing toys for role of variety, heroism & symbolism
20. Choosing safe toys & taking appropriate measures for storage & care.
21. Local specific toys folk & wooden toys, puppets, dolls, toys from cloth, paper ----- waste material & clay metal, lacquered toys.
22. Indian, local specific toys. Using popular toys of different Indian states.
23. Toys for challenged group, understanding disability and types of exceptional children.
24. Role of toys as teaching learning tools for challenged children of different age groups.
25. Toys & games from low cost material using cardboard, wood, cloth, paper, plastic, metal or clay.
26. Making some toys from waste material like cork boat, pop up hopper, paper flowers, cone baskets, glove puppets, dream rattles etc.

Certificate in Play Centre Management

Course Code no.	-	359
Duration of course	-	1 year
Essential Theory hours	-	80 hrs.
Essential Practical hours	-	320 hrs.

Introduction to the course - Good childcare facilities for young, non school going children has become a must as more and more young mothers home started working. Such facilities not only take a physical care of the children but also look after the mental or cognitive needs of the children under their care. Hence there is a great need to develop trained personnel to run such play centres.

Objective -

After going through this course you will be able to:

1. Develop an understanding of development of child
2. Have knowledge of nutritional needs of children
3. Develop an understanding of creative needs of children
4. Develop entrepreneurial skill in setting up and running a child care centre.

Entry Qualification - Xth class pass (the credit can be transferred as against any academic course of class XII)

Competencies :-

1. Identify the basic needs of 0-5 yrs. of children - physical, psychological health, clothing, socio-emotional and intellectual needs.
2. Learn the growth the development of under fives - factors affecting development, milestones in physical and motor development
3. Explain the need for early stimulation types of stimulation activates, role of play in stimulation, reinforcement, different types of sensory stimulation
4. Differentiate between a preschool and a play centre and explain the unique factures of a play centre.
5. Arrange play space and play equipments for outdoor and indoor play activities.
6. Make play equipments from indigenous resources and follow safety precautions.

7. Make one day 1-6 days plan of play centre programmes and describe the organization of various activities.
8. Prepare a feeding programme for play centre for play centre and explain the factors to be considered while carrying out to be considered while carrying out a feeding programme.
9. Explain programme planning, play way education and state the need and significance of play way education.
10. Make programmes for different age - groups (below 3 years and 3-5 years) and describe thematic approach in play centre.
11. Learn the role of play centre personnel and understand the responsibilities of the teacher.
12. Describe basic elements of discipline, type of disciplinary techniques meaning of problem behaviour and ways to over come problem behaviour.
13. Plan the curriculum effectively and follow the growth and development of children.
14. Be able to keep track of the expenses and appraise the effectiveness of play centre programme by maintain registers records etc.
15. Prepare a project report for setting up a small unit of play centre.

Job opportunities :

- Wage employment : as a worker in centres like balwadi, angawadi etc.
- Self employment : as a play centre owner

Scheme of study -

Weightage :-

- Theory - 40%
- Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Total
359	40	60	100

Scheme of Examination: - Theory - 2 hrs. Practical - 3 hrs. (each module) .

Passing Criteria: -

Theory	33%
Practical	33%
Aggregate	33%

Course content

Book - 1: Needs and Characteristics of Children (0-5 years)

Unit lesson Theory	Practical
1. Needs of children (under fives) physical needs, feeding Health, Psychological needs socio-emotional and intellectual needs.	Observe children in your family and enumerate their needs in terms of health, nutrition and play.
2. Characteristics of children-life stages-Beginning of life, infancy, babyhood, early childhood,	Observe and record the characteristics of few children in the age range of three to five years.
3. Growth and development-meaning and principles, factors influencing growth, physical growth, development milestones of children.	Identify one child at each stage of development and list the skills the child has mastered.
4. Early stimulation - meaning, stimulation activities, kinds of stimulation, motivating children below three years and 3-5 years.	Have a conversation with a baby in your neighbourhood for some time and list down the responses
Book - 2: Play Centre and its Programme	
5. Play centre-meaning-need and basis, unique features of a play centre-what it should do? Difference between a preschool and a play centre. What to look for in a play centre	Visit a preschool, observe and record its play way features.
6. Play, play space and play equipment meaning, values types and characteristics. Play space-importance, out-door and indoor space, arrangement, play equipment-importance,	List five play experiences that helped a child develop concepts or ideas about subject
7. Components of play centre outdoor and indoor play, physical exercise, games and dramatization, informal talk, science experiences, music and stories, structured and unstructured activities and experience promoting love for nature.	Organise creative activities with few children in your community and file their products.
8. Feeding programme-objectives and scope, steps involved in planning, organising and evaluating, factors to be considered in feeding children.	Develop a dialogue on any two common objects with a child, (below 3 years and 3-5 years). Collect few songs, stories and games for children below 5 years of age group.

<p>9. Observe five children below five years and report different types of play involved by them Visit a toy shop and list the items of equipment suitable for children in a play centre.</p>	<p>Observe a feeding programme in a nearby preschool.</p>
<p>Book - 3: Functioning of a Play Centre</p>	
<p>1. Planning and conducting programmes concept, principles, long and short term planning, programmes for different age groups.</p>	<p>Prepare a list of titles or play way themes for different age groups.</p>
<p>2. Play centre personnel. Qualifications, personal qualities and responsibilities staff-parent relationship, teacher evaluation, parent evaluation</p>	<p>Discuss with a play school teacher to know her responsibilities towards children.</p>
<p>3. Handling young children-habit formation, principles, ways of strengthening habits, disciplinary techniques, types, characteristics, behavior problems causes and types</p>	<p>Interview five mothers to know the factors that lead to successful habit formation. Meet about 20 parents and list the rewards and deprivation methods adopted by them.</p>
<p>4. Register Records and Evaluation importance's, types of registers, maintenance and principles. Evaluation, meaning and objectives of play centres</p>	<p>Note down the registers and records maintained in a pre-school. Formulate a</p>
<p>5. Involvement of parents and community in a play centre, play centre-home relations, parents involvement-scope and methods. Community involvement Role of Mahila mandals and other support services. Check-list of 10 questions to assess the programme of a play centre</p>	<p>Interview a play centre teacher to find out the programmes organised for the involvement of the community</p>

Certificate in House Keeping

Course Code no.	-	356
Duration of course	-	1 year
Essential Theory hours	-	40 hrs.
Essential Practical hours	-	260 hrs.

Introduction to the course - Housekeeping - as the suggests would mean keeping a house. Every house, whether private like yours or commercial like offices, shops, hotels, hospitals, clubs etc. needs to be kept neat & clean & look inviting to all those who enter.

The basic concept has started from keeping a domestic house clean and gradually has come to maintaining high commercial standards. Cleaning and maintenance services can now be spotted very easily any where, particularly in places like hotels & hospitals. But before we move into the actual working and detailed procedures of this interesting and probably the most important and probably the most important activity of our daily life, let us first get introduced to the role, importance, functions and people involved in housekeeping services.

Objective -

After going through this course you will be able to:

1. State the importance of housekeeping in any establishment
2. List the functions of housekeeping
3. Identify the various personnel involved in housekeeping.
4. Determine grooming standards for housekeeping.
5. Personal and neighbourhood hygiene, eradication and control of pests
6. Develop a hierarchy for a housekeeping department sections in the organization, state function & responsibilities of each.
7. Cleaning & polishing of different metals, wood, marble stones etc.
8. Using flower arrangements and traditional arts of floor decoration like Alpena, Rangoli
9. Budgeting & cost evaluation of paintings & minor repairs.
10. Undertaking minor electrical repairs.

11. First aid administering first aid & preparing first aid kit.

Entry Qualification - Xth class pass (the credit can be transferred as against any academic course of class XII)

Competencies :-

1. Identify the various personnel and determine grooming standards for housekeeping personnel.
2. Explain functions hierarchy and responsibilities of housekeeping personnel.
3. Practice different types and methods of cleaning.
4. Use different cleaning agents and cleaning equipment
5. Drawing up of plan and schedule for cleaning and maintenance of premises of an organization.
6. Budgeting and cost evaluation of upkeep and cleaning of the premises of an organization
7. Mastering the art of Alpana, Rangoli and other traditional art
8. Using principles of art to decorate the premises for special occasions and functions
9. Undertaking electrical repairs
10. Cleaning and polishing methods and material required for handling woods, metals, stones marble etc.

Job opportunities :

- Wage employment: As housekeeper in organization.
Supervisor of housekeeping & event organizers.
- Self employment: Opening housekeeping agency and agency for providing manpower to housekeeping for different organizations.

Scheme of study -

Weightage :-

- Theory - 40%
- Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Total
356	40	60	100

Scheme of Examination - Theory - 2 hrs. Practical - 3 hrs. (each module) .

Passing Criteria: - Theory 33%
Practical 33%
Aggregate 33%

Course content

1. Understanding housekeeping, its importance and functions like cleaning, maintenance & beautification
2. Identifying various personnels involved in housekeeping, their duties & hierarchy, for both skilled & unskilled workers.
3. Cleaning materials & tools equipments
4. Types & methods of cleaning for different building materials & facilities.
5. Linen & laundry to clean and finish linen, maser cleaning processes of linen. Identify and remove stains.
6. Identifying cleaning tools and equipments, their care & maintenance.
7. Elements of Art & principles of design and to use their in beautification of premises. Understanding and using colour and colour scheme for arrangement of furniture, fixture & general beautification.
8. Furniture & furnishing, space organization & selection of furniture, maintenance & care of wooden, cane, metal plastic & upholstered furniture & care of curtains & carpets.
9. Flower & other decorations. Using the principles of design to create different flower arrangements, Alpana & Rangoli to decorate premises specially for festive occasions.
10. Maintenance of premises. To identify & maintain different kind of floors & walls & carry out some electrical & plumbing repair work.
11. Pest control & Eradication. To control pests & eradicate them to minimize damage and diseases & incontinence. To undertake special maintenance to prevent entrance of pests.

12. Hygiene & sanitation the need for good personnel and neighbourhood hygiene.
To evolve means & methods of safe and effective waste & water disposal.
13. First aid to master basic principles of first aid be competent to attend to minor accidents or injury of people in the premises. To make & maintain first aid box.
14. Budgeting the need & importance of budget. Understand different kinds of budget & prepare budgets for general & particular activities.

Certificate Course in Care of Elderly

Course code : (445, 446, 447& 448)

Duration of the Course	:	One Year
Essential theory hours	:	Code : 445 - 25 hrs
		Code : 446 - 25 hrs
		Code : 447 - 25 hrs
		Code : 448 - 25 hrs
Essential Practical hours	:	Code : 445 - 75 hrs
		Code : 446 - 75 hrs
		Code : 447 - 75 hrs
		Code : 448 - 75 hrs

Introduction :

Today there is rapid increase in the elderly population, which is due to the decreased death rate and increased life expectancy. As the world demographic picture indicates, more and more people are living above the age of 70 years, this population will soon constitute 8-10% of the total population. At present there are 70 million older person in India and it is expected by the year 2005 the number will go up to 90-100 million.

The traditional system of joint family providing a secure and sociable environment for the elderly has been replaced by the nuclear families. Further the liberalization and modernization, has resulted in economic hardships along with stress and strains for all the members of the families. The impact of all this is being borne by the older members of the family, who are the neglected lot.

At present there are no skilled personnel to look after the special needs of the aged in the community or in the hospital setting. Therefore there is an immediate need to prepare a work force who can assist / provide the appropriate care to elderly in their own homes, home for the aged, day care centres, geriatric wards in the hospital / nursing homes and mobile Medicare Units.

OBJECTIVES

1. After completing this course the learner will be able to ;
2. Develop on understanding about the process of ageing
3. Learn the fundamentals of life sciences in respect to the elderly.
4. Identify physical, psychological, social and spiritual needs of the elderly
5. Explain easy to meet the specific needs of the elderly
6. Discuss the important components of health and hygiene
7. Plan and organize health educational activities for promoting health and preventing diseases among elderly.
8. Explain the need for balanced diet, food hygiene and healthy cooking practices.
9. Discuss the role of the family and the community in the elderly care
10. Enlist the various voluntary services/resources available for elderly care.

Entry Qualification

10th Class pass

or

8th Class pass with 2 year relevant experience.

Competencies

- After completing this course, the learner will be competent to:
- Identify various organs and organ system of the body and explain their functions
- Take care of the physical, psychological, social, economical and spiritual needs of the elderly
- Become familiar with the concept of health and hygiene and various factors affecting health.
- Learn the concepts of food and nutrition balanced diet, food hygiene and healthy cooking practices.
- Develop skills to help the elderly for their better adjustment in family and community.
- Guide the elderly in developing positive attitude towards old age
- Educate the elderly, their families and the community for promoting the health of the elderly.

- Develop skills to improve the living environment of the elderly.
- Provide care the elderly suffering from physical disorders (e.g. cataract, osteoporosis) and /or psychological, disorders (e.g. depression, dementia)
- Take care of the elderly during specific serious conditions such as cancer, paralyses, fracture, stroke etc.
- Provide care to the bedridden elderly
- Train the family members and the community to provide care to the elderly
- Utilize the various voluntary services/resources available for the welfare of the elderly
- Help the elderly to practice yoga
- Provide guidance and counseling to the elderly.
- Encourage active involvement of the elderly in productive work.

Job Opportunities

Wage Employment – As an Elderly Care assistant/supervisor in a hospital/old age home/geriatric wards/Nursing Homes/NGO etc.

Self Employment – Can establish his/her own old age home

Scheme of Study

Weightage :

Theory	-	40%
Practical	-	50%
Internal Assessment	-	10%

Scheme of Examination and Evaluation

Course Code	Theory	Practical	Internal Assessment	Total
445	40	50	10	100
446	40	50	10	100
447	40	50	10	100
448	40	50	10	100

Scheme of Examination

Theory - 3 hrs.

Practicals - 2hrs.

Passing criteria

Theory	-	40%	
Practical	-	50%	(in each of the modules)
Internal Assessment-		60%	

COURSE CONTENT;

Subject -1 Basic Life Science

- Anatomy and Physiology
- Health & Health Education and Basics of Nutrition
- Community Awareness and Government of sponsored system of the Elderly
- Basic Psychology

Subject -2 Aspects of Aging

- (i) Profile of the Elderly, (ii) Structural and Functional Changes in Ageing
- (i) The elderly, the family and the community, (ii) Psychology of Ageing
- Social, Economic, Spiritual Needs and Problems of the Elderly

Subject -3 General Care and Specific Needs of the Elderly

- (i) Living Environment of the Elderly, (ii) Special Nutritional Needs of the Elderly individuals
- (i) Physical Problems of the Elderly : Assessment and Care, (ii) Psychological Disorders of the Elderly : Assessment and Care
- (i) Care in Specific Serious Conditions of the Elderly: Cancer, Diabetic Coma, Stroke and Fractures, (ii) Care of the Bed Ridden Elderly
- Voluntary social and Health Services, Resources for the Care of the Elderly

Certificate Course in Community Health

Course code : (449, 450 & 451)

Duration of the Course : One Year

Essential theory hours : 400(Total study hrs.)

Essential Practical hours : ---

Introduction :

There is urgent need to provide Para – Medical professional health workers to provide simple, preventive and creative health services in view the Govt. launched Jan Swasthya Rakshak (Community Health Workers) scheme to train 5,80,000 health workers on recommendation of Srivatava Committee in 1977. There are so many areas/sector, not only in rural but also in urban where ;

- There are no medical facilities fully developed
- There are no doctors in sufficient number in the rural area
- No facility is available during emergency, who could guide or refer the case to hospital
- There is no person, who could guide the Community Health & Hygiene.

Therefore there is an immediate need to prepare work force. Who can assist/provide the appropriate care/Services to the community? These trained workers will work as Multipurpose Health workers to provide treatment & guidance in emergency situations.

OBJECTIVES

After completion of this programme, a trainee should have –

- Basic knowledge on Human anatomy and physiology
- Under standing on health, hygiene and nutrition
- Knowledge on communicable, diseases, life style diseases and common non-communicable diseases including emergency measures and prevention of diseases
- Practical knowledge on First Aid, Pharmacy and drug reaction

- Ability to provide the guidance on maternal and child health care, include family planning and immunization

Entry Qualification

10th Class pass

Competencies

After completing this course student will have :

- Basic knowledge of Human Anatomy & Physiology
- He will be trained Community Health Worker having basic understanding of Health, Hygiene & Nutrition.
- He can be a perfect health guide who can provide first aid and administer ordinary drugs as per requirement of situation.
- He will be multipurpose health worker who can help in the implementation of National health Programmes. Like MCD family Welfare, Immunization, control of communicable non communicable diseases.
- He can fit in as a Para Medical health worker in Private & Public Sectors & Health institutions both in Rural & Urban areas.
- He will be ready available to meet the shortage of manpower in rural health mission as well as urban set up like private clinics & nursing homes.
- He will serve as link between community & health providers.
- As a trained worker his service will be regained in national & state level events like fairs & kumls welas, sports events, at the time of natural calamities like floods both quakes accidents etc.

Job Opportunities - It is expected that this programme will be able to train and prepare skilled Health Workers. These trained persons will work in the community as a Health worker and they will work as facilitators for creating Health awareness, knowledge of Healthy Environment Health & Hygiene, and First aid and assist in getting appropriate treatment in emergency situations.

After passing through this course, the trainees will have job opportunities as an assistant/health worker in the community or Hospital settings such as in Hospitals, Nursing Homes, and Health clubs etc.

Scheme of Study

Weightage :

Theory - 40%

Practical - 60%

EVALUATION AND EXAMINATION SCHEME

S. No.	Subject/ Paper	Theory			Practical			Total
		External		Internal Assessment				
		Max. Marks	Time	Max. Marks	Max. Marks	Time	Max. Marks	Max. Marks
1.	Paper-1 Basic Life Science	70	3hrs.	10	100	4hrs.	20	200
2.	Paper-2 Material and Child Health Care	70	3hrs.	10	100	4hrs.	20	200
3.	Paper-3 Prevention and Management of Diseases and Emergency	70	3hrs.	10	100	4hrs.	20	200

Passing criteria

S. No	Subject for the trade test	Max . Marks in theory	Minimum % for pass	Minimum marks required for pass
	Theory including Internal Assessment	(70+10)x3 = 240 (written test paper 210) (Internal Assessment - 30)	40%	96
	Practical including Internal Assessment	(100+10)x3 = 360 (written test paper 300) (Internal Assessment - 60)	60%	216

Course Content

Subject -1 Basic Life Science

- Anatomy & Physiology - A
- Anatomy & physiology -B
- Natural Health and Hygiene
- Home Care and Childhood ailments
- Nutrition
- Yoga and exercises

Subject -2 Material and Child Health Care (including Family Welfare & immunization)

- Pregnancy and Care of women during Pregnancy
- Care of Women during Intranatal Postnatal period
- Breast Feeding
- National Health Programmes
- Importance and Needs of Family Welfare Programmes
- Duties of Health Workers

Subject -3 Prevention and Management of Diseases and Emergency

- Communicable Diseases -A
- Communicable Diseases - B
- Preventive Measures (All 5 steps)
- First Aid
- Life Style Diseases
- Pharmacies and Drug Reaction
- Management and Emergency

Certificate in Rural Health for Women (Gram Sakhi)

Course Code no.	-	401, 402, 403 & 404
Duration of course	-	1 yr.
Essential Theory hours	-	401 - 90 hrs
		402 - 55 hrs
		403 - 40 hrs
		404 - 50 hrs = 235
Essential Practical hours	-	401 - 48 hrs
		402 - 64 hrs
		403 - 16 hrs
		404 - 176 hrs = 304

Introduction to the course -

The government of India has been making a lot of efforts to improve the health status of its people especially those living in rural areas. Keeping in view the vital role of women in promoting the health of their families/communities the NIOS has been offering a certificate course in Rural Health for women (Gram Sakhi). The course aims to empower the rural women by making them aware of their economic, social, political and health rights, and providing them knowledge and skills related to women's health. It includes important topics like the structure and function of various body parts; health, nutrition and hygiene; prevention and control of common diseases/ condition; gender issues besides environmental issues such as air and water pollution.

Objective -

After completing this course, the learner will be able to ;

- Understand the working of the human body systems.
- Explain the importance of balanced diet, food hygiene and healthy cooking practices.

- Describe common health problems/ disorders
- Know the functioning of three tier system of Panchayati Raj
- List the courses of air, water and soil pollution.
- Enlist the various measures for conservation of natural resources.
- Discuss common remedies for minor ailments.
- Describe some important health problems – T.B., Asthma, Pneumonia, Malaria, Bronchitis, Diarrhoea etc.
- Mention the various facilities offered by rural banks.

Entry Qualification - Vth Pass

Competencies : -

After completing this course the learners will be competent to;

1. Understand the working of the body as a whole.
2. Correlate between different body system, their organs and functions.
3. Illustrate and describe the cell and different types of tissues, blood, nerves, muscles and joint.
4. Help comb at malnutrition, both under-nutrition and over-nutrition.
5. Identify systems of common health problems/ disorders.
6. Provide common remedies for cure of minor ailments.
7. Motivate and actively involve the local community for village development
8. Understand the role and functioning of village panchayat.
9. Motivate women for their active participation in village panchayat
10. Identify factors responsible for pollution of air, water, soil etc.
11. Take appropriate measures to conserve natural resources like, water, air etc.
12. Understand the importance of various nutrients especially for the health of women & children
13. Utilize different facilities provided by rural banks.
14. Plan and organize activates related to gender equality.
15. Educate the community to follow desirable health practices.

Job opportunities : -

Wage employment: As a health workers n a primary health centre/NGO/hospitals/clinics/nursing home.

Self employment : can open his/her own NGO, Mahila Mandal for women’s problem.

- Weightage :-**
- Theory - 30%
 - Practical - 30%
 - Internal Assessment - 40%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
401	30	30	40	100
402	30	30	40	100
403	30	30	40	100
404	30	30	40	100

Scheme of study -

- Theory - 2hrs.
- Practical - 1/2hrs. (for each of the module)

Passing Criteria :-

Theory	40%
Practical	40%
Internal	40% (for each of the module)

Course Content :-

Code - 401

Chapter - 1 Body functions

Chapter - 2 Nature and us

Chapter - 3 Body structure

Chapter - 4 Relation between body structure and its function

Chapter - 5 Body as a Unit

Chapter - 6 Cells and tissues

Chapter - 7 Joints and tissue fluids

Chapter - 8 Blood Circulatory System

Chapter - 9 Digestive System

Chapter - 10 Respiratory System an introduction

Code - 402

Chapter - 1 Let us move forward

Chapter - 2 Our Government in our village

Chapter - 3 Women's participation in village panchayat

Chapter - 4 Air

Chapter - 5 Need for clean air

Chapter - 6 Story of Water Scientific

Chapter - 7 Soakage pit

Chapter - 8 Newly designed improved chullah

Code - 403

Chapter - 1 Respiratory System

Chapter - 2 Respiratory tract diseases - signs & symptoms

Chapter - 3 People's views about diseases

Chapter - 4 Diseases related to Ear, Nose and Throat

Chapter - 5 Sinusitis

Chapter - 6 Pharyngitis

Chapter - 7 Tonsillitis

Chapter - 8 Otitis Media

Chapter - 9 Bronchitis

Chapter - 10 Asthma

Chapter - 11 Pneumonia

Chapter - 12 Tuberculosis

Chapter - 13 Diarrhoea & Dehydration

Chapter - 14 Fever its treatment

Chapter - 15 Types of fever

Chapter - 16 Drugs

Code - 404

Chapter - 1 Concept of Health

Chapter - 2 Health, poverty and gender bias

Chapter - 3 Health & Development

Chapter - 4 People's Concept of Health

Chapter - 5 Diseases

Chapter - 6 Role of Health Worker

Chapter - 7 Rural Banks

Chapter - 8 Anaemia

Chapter - 9 Blood & Anaemia

Chapter - 10 Nutrition

Chapter - 11 Malnutrition

Chapter - 12 Women's Health

Chapter - 13 Vitamin's content in different good items

Certificate in Homeopathic Dispensing

Course Code no.	-	718-719
Duration of course	-	1 yr.
Essential Theory hours	-	260 hrs.
Essential Practical hours	-	100 hrs

Introduction to the course -

Dr. Christian Friedrich Samuel Hahnemann was awarded the honorable degree of Doctor of Medicine (MD) from the Erlangen University in 1779. He started medical practice but was greatly dissatisfied. In the year 1796 he published an article. An essay on a new principle for Ascertaining. The curative powers of drugs and some examination of the previsions principle.

He thus put forward his new doctrine of similia similibus curantur (like cure like) in contrast to the age old doctrine of contraria contrariis curantur (opposite cure opposite). Thus 1796 is called the first year of Homeopathy.

Homeopathy is a scientific system of medicine. It is based on the nature's law of cure. It is art of individualization. Individualization of patient & remedy is the basis of treatment.

Objective -

Student will be able to understand after completion of course;

- Fundamental principles of Homeopathy
- What is health, disease, cure and vital force?
- The mode of action of Homeopathic medicines and basic knowledge of anatomy & physiology.
- The case taking
- Palliation and suppression?
- The meaning of the scope and limitations of Homeopathy
- Dispensing and stock management of Homeopathic medicines.

Entry Qualification - Xth Pass

Competencies :-

1. He will have basic knowledge about human body, various systems & their functions.
2. Will have knowledge of what is Homeopathy and how it was discovered.
3. He will know how Homeopathy is an art & a scientific system of medicine
4. Knowledge of fundamental principles of Homeopathy and about health, disease, cure & ----- force.
5. Mode of action of Homeopathic medicines & case taking.
6. What is Palliation and suppression?
7. Knowledge of Dispensing and stock management of Homeopathic medicines.
8. He will be able to work under the supervision of qualified registered Homeopathic practioners.

Job opportunities :-

As an assistant to qualified registered homeopathic practioners.

He will help in storage & dispensing of medicine

Scheme of study

- Weightage :-**
- Theory -60%
 - Practical - 40% (same for each moduel)

Scheme of Evaluation

Course code	Theory	Practical	Total
718	60	40	100
719	60	40	100

Scheme of Examination -

- Theory - 2 ½ hrs.
- Practical - 3 hrs. (for each of the module)

Passing Criteria :- Theory 40%
 Practical 50%
 Internal note given
 (for each of the module)

Course Content :-

Code - 718

1. Basic of -----
2. Basic of Physiology
3. History of Homeopathy
4. Organon of Medicine
5. Introduction of Homeopathic Materia Medica

Code - 719

1. Homeopathic Pharmacy and Pharmacoporia
2. Sources, collection and preservation of drug substances
3. Homeopathic Dispensary
4. Preparation of Homeopathic Medicine
5. Homeopathic Posology
6. List of Essential Drug with abbreviations
7. Study of Prescription and abbreviations used in prescription
8. Drugs and cosmetic act, medicinal and toilet preparation Act.
9. Duties and responsibilities of dispenser

Certificate course in Security Service

Course Code no.	-	615
Duration of course	-	6 months
Essential Theory hours	-	100hrs
Essential Practical hours	-	200hrs

Introduction to the course - All round progress made by independent India, has created significant assets, which are vulnerable to threats from anti-social, anti-national elements and hostile activities from foreign sponsored terrorists. As a result, our law and order enforcing agencies are over stretched and are not in a position to provide protection to all our assets and personnel that need guarding.

As a result and due to the changing social scenario, efficient and well trained security guards, including female, are in great demand. Seven million security guards are employed today. Annual increase in demand is twenty percent and the security industry remains unaffected by the ups and downs of the economy.

All the states have implemented the private Security Agencies Regulation Act, 2005 (PSAR Act) barring a few. It is now, mandatory for the private security agencies (PSA) to obtain a license and engage or deploy only those guards who have successfully undergone the prescribed Training. This results in a majority of existing guards and fresh inductees attending training with institutions recognized to impart security training.

India has large number of unemployed young people and this course is especially useful for all our of work and willing to work, class VIII pass, such able bodied persons.

The aim of this Training Programme is to train the learners who are seeking a career in Security Services, and fulfill all the criteria mentioned in the Private Security Agencies Regulation Act, 2005.

Objectives of the course -

The objectives of the course are;

- To empower the rural and urban youth with employment skills in security services.
- To provide the trainees, males and females, appropriate knowledge, skills and values for providing security services in a professional manner.
- To train how to provide protection to personnel, property and information.
- To provide knowledge, skills and training on various security services.
- To inculcate in them mandatory qualities (such as deportation and bearing, discipline, work conduct, team spirit, leadership qualities, loyalty, devotion to duty etc.)
- To train the trainees to evaluate properly and take stock of the given situation and to evolve a strategy of handling it with appropriate technique with security equipments and gadgets.
- To prepare the learners physically, mentally and emotionally to handle professionally the situation of any sort.
- To condition the reflexes of the trainee to enable to tackle emergency situations.
- To train the learners in the basics of fire fighting and first aid techniques and skills.

Entry Qualification - 8th Pass

Competencies : -

After completing the course learner will be able to ;

1. Provide security services in a professional manner
2. Protect personnel, property and information
3. Acquire knowledge, skills and training on various security services.
4. Internalize mandatory qualities such as deportation and bearing, discipline, work conduct, team spirit, leadership qualities, loyalty, duration to duty etc.
5. Evaluate properly and take stock of the given situation and evolve a strategy of hand line it with appropriate technique with security equipments and gadgets.
6. Handle the situation of any sort in a professional manner
7. Tackle the emergency,
8. Master the basics of fire fighting skills and first aid techniques.

Job opportunities :

Wage employment : As a security guard in various industries ex. Industrial, banking, hospitality, business houses, malls, residential areas etc.

Self employment : As a owner/security provider to the various sector.

Scheme of study -

Weightage :- - Theory - 40% Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
615	40	60	--	100

Scheme of Examination : - Theory - 2 hrs. Practical - 2 hrs.

Passing Criteria :- Theory 50%

Practical 50%

Aggregate 50%

Course Content

Unit 1 = Basics of Security

Lesson - 1 Introduction of Security

- a) What is security and its importance
- b) Fundamentals of Security
- c) Purpose of Security
- d) Measures of Security
- e) Role of Government Security Agencies and Private Security
- f) What a Private Security Guard must learn about his employer (security agency) and Principal Employer

Lesson - 2 Private Security Guards (PSG) & Rules, Regulation governing them

a) PSG & Security Law

- Private Security Guard - Definition
- Eligibility
- Physical Fitness
- Standards of training
- Conduct according to Rule

b) PSG & Labour Law

- Industrial disputes & strike
- Compensation Act - 1923
- EPF & ESI

c) PSG & Criminal Law

- Indian Criminal Code
- Cr. P. C.
- Arms Act

Lesson - 3 Physical Security

- Perimeter security
- Building security
- Access control
- Personal and VIP Security

Lesson - 4 Functions of Security

- a) Protection = to defend, act of keeping a person / property safe so that he / it is not harmed / damaged / stolen.
- b) Prevention = to stop somebody from doing something; stop something happening; i. e.; accident, crime.
- c) Detection = to discover something which a person is normally not able to know.
- d) Inspection = to look at closely with detail, to make sure that the rules are followed or not.
- e) Investigation = Try to find out all the facts, hidden or open, about something, a professional examination of facts about a situation.
- f) Enforcement = to force or to make people follow or obey a rule or law, to make people to do what they do not want to do.
- g) Emergency = These are such serious situations that need immediate action and intervention by the services like police, Fire Brigade, First Aid, ambulance and hospitals to enforce law and order, to save life or to assist in rescuing others.

Unit - 2 Security Training

Lesson - 1 Training ---- overview

As per Rule 5 of the Private Security Agencies Central Model Rules, 2006 the training will include the following subjects, namely;

- a) Conduct in public and correct wearing of uniform;
- b) Physical fitness training;
- c) Physical security, security of the assets, security of the building or apartment, personnel security, household security;
- d) Fire fighting;
- e) Crowd control;
- f) Examining identification papers including identify cards, passport and smart cards etc/
- g) Should be able to read and understand English alphabets and Arabic numerals as normally encountered in the identification documents, arms license, travel documents and security inspection sheet;
- h) Identification of improvised explosive devices;
- i) First - Aid;
- j) Crisis response and disasters management;
- k) Defensive driving (compulsory for the driver of armored vehicle and optional for others);
- l) Handling and operation of non-prohibited weapons and firearms (optional);
- m) Rudimentary knowledge of Indian Penal code, right to private defense, procedure for lodging first information report in the police station, arms act (only operative sections), explosives act (Operative sections);
- n) Badges of rank in police and military forces;
- o) Identification of different types of arms in use in public and police;
- p) Use of security equipments and device (for example, security alarms and screening equipments); and
- q) Leadership and management (for supervisors only).

Lesson - 2 Physical Fitness Training

- Physical Fitness, Importance & its necessity
 - PT
 - Yoga
 - Running
 - Unarmed combat
 - Sports - to develop
 - Stamina
 - Strength
 - Agility
 - Dexterity etc.
- Personality development & conduct in Public
 - Drill & Bearing
 - Conduct in Public
 - Appearance & grooming, including personal hygiene
- Balanced Diet

Lesson - 3 Security subjects

- What
- Why
- Importance
- Procedures & Documentation
- Security Devices and Equipments

Lesson - 4 Specialized Training

- Handling & precautions of hazardous material
- IED (Identification of IED)
- Duties during crowd control & mob control
- Traffic duty & duty at parking
- Identification of different types of arms in use in public place & police
- examination of identification paper including pass port & smart card
- Identification of rank & badges used in the agency, armed forces & police

Unit - 3 = Fire Control & Prevention

Lesson - 1 Fires Prevention & Protection

Lesson - 2 Fire fighting equipments

Lesson - 3 Personal Protective Equipment

Lesson - 4 Rescue Operations

Unit - 4 = Management of emergency situations

Lesson - 1 First Aid management

Lesson - 2 Crisis Response & Disaster Management - 1

- Role of PSG during emergency situations :--
 - Explosive blast, Letter Bomb, Hoax Call
 - Shoot-out
 - Attempted kidnapping
 - Stampede, Mob Control, Riot
 - Threat to life , terrorist activity
 - Personal safety from fire, building collapse, rail/road accident etc.

- Role of PSC in Disaster Management

Unit - 5 Communication & Documentation

Lesson - 1 Basics of Communication

- Verbal communication
- Non-verbal communication
- Body language

Lesson - 2 Communication on Duty

- Communication over a telephone and Mobile
- Walkie Talkie (Theory and Practical)
- Telegram
- Telephone log book

Lesson - 3 Spoken English

Lesson - 4 Documentation

- Importance and Types
- Documentation and the registers maintained at Main Gate and Material Gate etc.
- Record and Long Role

Unit - 6 Guarding of various establishment & installations

Banking Security,

ATM security,

Industrial Security

Security in Educational Institutions

Security in corporate offices,

Security in Malls

Security in Hotels

Residential areas

Security in Hospitals

Security in Metro, Railway and

Security for Cash & transit

Certificate course in Yoga

Course Code no.	-	614
Duration of course	-	6 months
Essential Theory hours	-	50hrs
Essential Practical hours	-	150hrs

Introduction to the course -

Yoga is the method by which the restless mind is calmed and the energy directed into constructive channels. The word "Yoga" is derived from the Sanskrit root "Yog" - meaning to kind, join or attach. It also means union. It is the time union of our will with the will of God. It is one of the six orthodox system of Indian philosophy. The system of yoga teaches us the means by which the " JIVATMA" (the individual human spirit) can be united to the " Parmatma" & so secure liberalization (Moksha).

Yoga means " Complete development of personality" Srimodbhgwat Gita.

Yoga is part and parcel of our ancient Indian culture. It help in overall development of mind & body. Man develops fully physically mentally, intellectually and spiritually.

Objective -

After completing the course learner will be able to ;

- To understand meaning and importance of yoga
- To knows some important yogasans and their therapentic value.
- To practice the technique of various pranayans
- Take proper precautions while doing yoga exercises.
- To educate the people to practice yoga and enjoy healthy life.

Entry Qualification - 8th Pass

Competencies :-

After completion of this course student will have;

- Basic knowledge of Yoga and Pranayama
- He will be able to practice Yoga & Pranayama and propagate the same amongst the masses.
- It is a means of attaining perfect health by maintaining harmony and achieving optimum functioning and complete self control.
- He will be able to act as a role model for others by maintain healthy, active, cheerful & happy life
- He can serve as a guide to teach pranayama explain its benefits to the people.
- Regular practice of Pranayan controls the emotions, increases concentrations and peace and stability of mind which increases Lungs capacity, tones of decongestive system and tools the body and mind.

Job opportunities :

After completion of this course the student will be able to: -

- Because a coach or a teacher of yoga.
- He can open his own yoga training center.
- He can arrange yoga training classes for NGOs and other voluntary organizations; teaching institutes.
- They can run clinics and OPD
- He can offer his services in the public places like parks and health resorts

Scheme of study -

Weightage :- - Theory - 50% Practical - 150%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
614	40	60	--	100

Scheme of Examination : - Theory - 2 hrs. Practical - 2 hrs.

Passing Criteria :- Theory 50%

Practical 50%

Aggregate 50%

Course Content :-

Diploma in Radiography (DRX)

(X-Ray Technician Course)

Course Code no. - 430-435

Duration of course - 2yrs.

1st Year (430-433)

Code : 431

Essential Theory hours - 120hrs

Essential Practical hours - 80hrs

Code : 432

Essential Theory hours - 120hrs

Essential Practical hours - 80hrs

Code : 433

Essential Theory hours - 80hrs

Essential Practical hours - 120hrs

2nd Year (434-435)

Code : 435

Essential Theory hours - 100hrs

Essential Practical hours - 110hrs

Introduction to the course -

Radio-diagnosis and Radiotherapy are almost essential components of modern medical practice. Recent Imaging techniques such as Computerised Tomography (CT), Ultrasound and Magnetic Resonance Imaging (MRI) have revolutionised the

medical world. These tools help in arriving at accurate diagnosis and thus enhancing the chances of success in treatment.

The output of qualified X-ray Technicians from the existing training institutions has not been able to keep pace with the increasing demand for rapidly expanding Medicare facilities, both in rural as well as in urban areas. Therefore, there is need for a course in Radiography(X-ray Technician) to prepare qualified technicians to fill up the increasing number of jobs.

Objective -

- Diploma intended to prepare X-ray Technicians to meet the growing demand.
- This course will provide quality education and training at reasonable cost in the institutions having qualified teachers and other infrastructure facilities.
- To provide knowledge and the skill gained through this course will equip the learners with the advance training in technologies like CT, Angiography and MRI etc.

Entry Qualification - 12th class passed with science subjects
Or - 10th class passed from any board of school Education with science subject, with three years of experience in X-ray field.

Competencies :-

After completion of this course student will have;

- He/she will be able to handle X-ray machines, Ultra-sound, C.T. and MRI equipment
- He will be able to work in Radio diagnosis & Radiography Departments.
- He will be able to work as Dark Room assistant in X-ray Department
- He will have knowledge of accurate positioning of patients as required by the Radiologist/Physician
- He will be able to protect himself as well as the patients from Radiation Hazards by working use of appropriate protective devices. He will be able to maintain all the diagnostic machines and electrical gazettes.
- To maintain proper record of the procedures done at the diagnostic center and stock position of X-ray films and drugs used in department.

- To help the Radiologist in reporting and submission of reports to the concern department.
- He will have adequate knowledge of recent Imaging and special diagnostic procedure like Ultra - sound scanning, Doppler Ultra sound, Endo sonography, Mammography, tomography, Magnetic resonance imaginings etc.

Job opportunities :

- After passing the course, the students can get the jobs as
 - Radiographer
 - Dark Room Technician
 - Radiotherapy Technicians
- He can be employed in Medical Colleges Hospitals, Central and State government hospitals, Primary Health Centres, community Health center, polyclinics, diagnostic centers, private hospitals and nursing homes veterinary hospitals, armed force Medical Services, Scientific and research Institutions etc.

Scheme of study -

Weightage :- - Theory - 40% Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
Ist Year				
430	50	--	--	50
431	50	100	--	150
432	50	--	--	50
IInd Year				
433	50	100	--	150
434	50	100	--	150
435	50	100	--	150

Grand Total (1st Year + 2nd Year) = 250+450 = 700

Scheme of Examination : - Theory - Practical -

Passing Criteria :- Theory

Practical

Aggregate

Course Content :-

Code no. 430

Orientation to X-Ray. Radiation Hazards and protection

1. Orientation of X-ray Department
2. Radiation Hazards and Protection
3. The Hospital, Patient and Radiographer

Code no. 431

Basic physics and the Units of Measurement

1. Basic physics and the Units of Measurement
2. The structure of Matter
3. Electrostatics
4. Magnetism
5. Electric Generator
6. Transformer
7. Rectification
8. X-rays (Roentgen Rays)
9. X-ray Tube
10. X-ray Therapy tubes

Code no. 432

Basic Human Anatomy and Physiology

1. Basic Human Anatomy
2. The Skeleton
3. The Skull
4. The Circulatory System
5. The Respiratory System
6. The Digestive System
7. The excretory system
8. The reproductive System
9. The Endocrine System
10. Nervous System
11. Sensory System

Code no 433

Dark room procedure

1. Dark Room
2. X-ray Films
3. Intensifying Screens
4. Processing of X-ray Films
5. Silver Recovery
6. Faults in Radiographs and their Remedies

Code no 434

Regional Radiography and Contrast media

1. Positioning and Projection Terminology
2. Radiography of Abdomen
3. Radiography of Chest
4. Radiography of Urinary Tract
5. Radiography of Biliary Tract
6. Radiography of Skull Projection
7. Radiography of Upper Limb
8. Radiography of Lower Limb
9. Radiography of Cervical
10. Radiography of Dorsal Spine
11. Radiography of Lumbar Spine
12. Contrast Media
 - a. Properties
 - b. Adverse Reactions and their Prevention and Treatment
 - c. Contrast media in CT, MRI and Ultrasound

Code no. 435

Recent Imaging and Special Diagnostic Procedure

1. Ultrasound Scanning
 - a. Principles
 - b. Displays of Images, Modes

- c. Doppler Ultrasound
 - d. Duplex Ultrasound
 - e. Endosonography
- 2. Mammography
 - a. Equipment
 - b. Positioning and Projections
- 3. Xero-radiography
- 4. Radio Nuclide Imaging (Scientigrpahy)
- 5. Alimentary Tract
- 6. Oesophagus
- 7. Stomach 7 Duodenum
- 8. Small Intestine
- 9. Large Bowel
- 10. Sialography
- 11. Nasopharyngography
- 12. Tomography
- 13. Laryngography
- 14. Bronchography
- 15. Billiary Tract
- 16. Percutaneous Transhepatic Cholangiography (PTC)
- 17. Pre Operative Cholangiography
- 18. Urinary Tract
 - a. Intravenous Urography (IVU)
 - b. Retrograde Pyelography (RGP)
 - c. Antegrade Pyelography
 - d. Cystography and Micturting Cystourethrography (MCU)
 - e. Retrograde Urethrography
- 19. Arthrography
- 20. Myelography
- 21. Deacrocystography
- 22. Angiography
 - a. Arteriography and Venography Carotid Angiography
- 23. Computerized Axial Tomography (CAT/CT seanrie)
 - a. Principles
 - b. Equipments
 - c. Examination Procedure

- d. Patient Preparation and Position
- 24. Magnetic Resonance Imaging (MRI)
 - a. Principles and Equipment
 - b. Image Characteristics
 - c. Pulse Sequence
 - d. Advantage and Precautions
- 25. Radiography Female Genital Tract

Certificate Course in Jeevan Vigyan

Course Code no.	-	617
Duration of course	-	6 months
Essential Theory hours	-	120hrs
Essential Practical hours	-	180hrs

Introduction to the course -

Good course thoughts, deeds and values are considered to be three main component of the science of living, science of living includes health education, value education and yoga education. In today's world people are suffering from numbers of problems such as violence, stress, depression, family problems, immoral attitude, pollution etc. while analyzing these problems, it seems that the root course of all these problems in the individual's own mental instability which leads to negative thinking jealousy, fear, greed, violence etc.

The certificate course in Jeevan Vigyan aims for holistic personality development of individual. It includes physical, mental emotional and spiritual development, which helps the individual to acquire mental stability and peace within.

Objective -

- Define the science of living learn about the physical development - As on, yoga, concepts of health healthy habits etc.
- Discuss about components of mental development - As on pranayam mental health etc.
- List the factors affecting emotional development
- Appreciate the role of social values, non-violence tolerance, team work etc. in the social development of an individual
- Correlate the spiritual development with overall personality development of an individual.

Entry Qualification - 10th class passed

Competencies :-

After completion of this course student will have;

- Practice correct techniques of As an, pranayam and yoga.
- Follow healthy habits such as exercise, balanced diet, maintaining personal hygiene etc.
- Develop positive attitude towards life
- Follow good deeds, thoughts and moral values for healthy physical, mental, social & spiritual development.

Job opportunities :

- **Wage employment** - As a trainer Jeevan Vigyan/Yoga/ Asans.
Can work in organization/NGO working in similar fields.
- **Self Employment** - Can open his/her own training/fitness centre.

Scheme of study -

Weightage :- - Theory - 40% Practical - 60%

Scheme of Evaluation

Course code	Theory	Practical	Internal	Total
617	40	60	100	

Grand Total (1st Year + 2nd Year) = 250+450 = 700

Scheme of Examination : - Theory - 2 hrs. Practical - 1 hr.

Passing Criteria :- Theory 33%

Practical 50%

Course Content :-

- Chapter 1 - What is Jeevan Vigyan, why is it important
- Chapter 2 - Healthy Living and Jeevan Vigyan
- Chapter 3 - Healthy individual, family and community
- Chapter 4 - Mental and Emotional Health
- Chapter 5 - Development Human Values and Determination power
- Chapter 6 - Awareness about non-violence
- Chapter 7 - Becoming - Self reliant

Compendium of Vocational Courses

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