

S-30th May, 2015 AC after Circulars from Circular No.1 &amp; onwards - 6 -

**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY****CIRCULAR NO.ACAD/SU/Sci./B.Sc. & M.Sc. Syll./5/2015**

It is hereby notified for information to all the concerned that, on the recommendation of the Faculty of Science the Academic Council at its meeting held on 30-05-2015 has accepted the **revised semester-wise syllabi as mentioned against their names in the Faculty of Science as under :-**

Sr. No.	Name of the Subject	Semester
[1]	B.Sc. Computer Science Degree Course	III & IV
[2]	B.Sc. Information Technology Degree Course	III & IV
[3]	B.C.A. Science Degree Course	III & IV
[4]	B.Sc. Animation Degree Course	III & IV
[5]	B.Sc. Bioinformatics Degree Course	III & IV
[6]	B.Sc. Computer Science [Optional]	III & IV
[7]	B.Sc. Information Technology [Optional]	III & IV
[8]	B.Sc. Computer Applications [Optional]	III & IV
[9]	B.Sc. Computer Maintenance [Optional]	III & IV
[10]	B.Sc. Environmental Science [Optional]	V & VI
[11]	B.Sc. Bio-Chemistry [Optional]	V & VI
[12]	B.Sc. Forensic Science Degree Course	V & VI
[13]	B.Sc. Industrial Chemistry [Optional]	V & VI
[14]	B.Sc. Electronics [Optional]	V & VI
[15]	B.Sc. Zoology [Optional]	V & VI
[16]	B.Sc. Microbiology [Optional]	V & VI
[17]	B.Sc. Instrumentation Practice [Optional]	V & VI
[18]	B.Sc. Statistics [Optional]	V & VI
[19]	B.A. Statistics [Optional]	V & VI
[20]	B.A. / B.Sc. Mathematics [Optional]	V & VI
[21]	B.Sc. Home Science Degree Course	V & VI
[22]	B.Sc. Textile Interior Decoration Degree Course	V & VI
[23]	B.Sc. Fishery Science [Optional]	V & VI
[24]	B.Sc. Dairy Science & Technology [Optional]	V & VI
[25]	B.Sc. Botany [Optional]	V & VI
[26]	B.Sc. Physics [Optional]	V & VI
[27]	M.Sc. Computer Science	III & IV
[28]	M.Sc. I.T.	III & IV

This is effective from the Academic Year 2015-16 & onwards as appended herewith.

All concerned are requested to note the contents of the circular and bring the notice to the students, teachers and staff for their information and necessary action.

University Campus,  
Aurangabad-431 004.  
REF.NO.ACAD/SU/Sci./  
2015/3761-4160

Date:- 16-06-2015.

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**Director,**  
**Board of College and**  
**University Development.**

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S-30th May, 2015 AC after Circulars from Circular No.1 & onwards

- 7 -

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**Copy forwarded with compliments to:-**

- 1] The Principals, affiliated concerned colleges,  
Dr. Babasaheb Ambedkar Marathwada University

**Copy to :-**

- 1] The Controller of Examinations,
- 2] The Director, [E-Suvidha Kendra], in-front of Registrar's Quarter,  
Dr. Babasaheb Ambedkar Marathwada University,
- 3] The Superintendent, [B.Sc. Unit],
- 4] The Superintendent, [M.Sc. Unit],
- 5] The Programmer [Computer Unit-1] Examinations,
- 6] The Programmer [Computer Unit-2] Examinations,
- 7] The Record Keeper.

S\*/-160615/-

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**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY  
AURANGABAD**

**Syllabus**

**Of**

**B.Sc. ( Home Science )**

**Third Year ( Fifth & Sixth Semester)**

**THREE YEAR DEGREE COURSE**

**(Semester System)**

**(EFFECTIVE FROM 2015- 16 & ONWARDS)**

**Syllabus of B.Sc. Home Science (Third Year)**

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*Ukranshale  
Chairman  
Ad-hoc Board  
in B.Sc. (Home Science)*

**First year**  
**(First semester)**

Code No.	Name of the paper/subject	Theory / Practical	Duration hrs/week	Max. marks	Total marks
CL1	Compulsory English	Theory	5	50	50
111	Human Physiology	Theory	3	50	50
112	Human Development (Prenatal - Toddlerhood)	Theory	3	50	50
113	Fundamentals of Home Science Extension Education	Theory	3	50	50
114	Basics of Textiles and Clothing	Theory	3	50	50
		Practical	4	50	50
115	Food Science & Nutrition	Theory	3	50	50
		Practical	4	50	50
116	Family Resource Management-I	Theory	3	50	50
		Practical	4	50	50
<b>Total marks of I Semester=500</b>					

**First Year**  
**(Second semester)**

Code No.	Name of the paper/subject	Theory / Practical	Duration hrs/week	Max. marks	Total marks
CL1	Compulsory English	Theory	5	50	50
127	Introduction to Nutritional Biochemistry	Theory	3	50	50
128	Human Development (Preschool- Late childhood)	Theory	3	50	50
129	Early childhood Care & Education-I	Theory	3	50	50
1210	Textile Science and Basics of Embroidery	Theory	3	50	50
		Practical	4	50	50
1211	Family Resource Management-II	Theory	3	50	50
		Practical	4	50	50
1212	Principles of Food Processing	Theory	3	50	50
		Practical	4	50	50
		<b>Total marks of IInd Semester=500</b>			
		<b>Total (Semester I + II) =1000</b>			

**Second Year****(Third Semester)**

<b>Code No.</b>	<b>Name of the paper/subject</b>	<b>Theory / Practical</b>	<b>Duration hrs/week</b>	<b>Max. marks</b>	<b>Total marks</b>
2313	Human Development (Adolescence, Adulthood & Old age)	Theory	3	50	50
2314	Communication Techniques	Theory	3	50	50
2315	Family Dynamics	Theory	3	50	50
2316	Family Economics & Consumer Education	Theory	3	50	50
2317	Dyeing & Printing	Theory	3	50	50
		Practical	4	50	50
2318	Principles of Art & Design	Theory	3	50	50
		Practical	4	50	50
2319	Bakery & Confectionary	Theory	3	50	50
		Practical	4	50	50
<b>Total marks of III Semester=500</b>					

**Second Year**  
**(Fourth Semester)**

Code No.	Name of the paper/subject	Theory / Practical	Duration hrs/week	Max. marks	Total marks
2420	Food Hygiene and Sanitation	Theory	3	50	50
2421	Guidance & Counseling	Theory	3	50	50
2422	Meal Management	Theory	3	50	50
		Practical	4	50	50
2423	Early Childhood Care & Education-II	Theory	3	50	50
		Practical	4	50	50
2424	Apparel Designing & Construction	Theory	3	50	50
		Practical	4	50	50
2425	Housing & Interior Decoration	Theory	3	50	50
		Practical	4	50	50
		<b>Total marks of IV Semester=500</b>			
		<b>Total (Semester III + IV) =1000</b>			

**Third Year**  
**(Fifth Semester)**

Code No.	Name of the Paper/Subject	Theory / Practical	Duration hrs/week	Max. marks	Total marks
3526	Community Development	Theory	3	50	50
3527	Household Equipment	Theory	3	50	50
3528	Children with Developmental Challenges & Assessment	Theory	3	50	50
		Practical	4	50	50
3529	Food Service Management	Theory	3	50	50
		Practical	4	50	50
3530	Traditional Textiles, Embroidery & Costumes of India	Theory	3	50	50
		Practical	4	50	50
3531	Entrepreneurship Development & Management	Theory	3	50	50
		Practical	4	50	50
<b>Total marks of V Semester=500</b>					



**Third Year**  
**(Sixth Semester)**

Code No.	Name of the Paper/Subject	Theory / Practical	Duration hrs/week	Max. marks	Total marks
3632	Home Science Extension Education	Theory	3	50	50
3633	Women & Child Welfare	Theory	3	50	50
		Practical	4	50	50
3634	Fashion Designing & Textile Industry	Theory	3	50	50
		Practical	4	50	50
3635	Food Analysis & Quality control	Theory	3	50	50
		Practical	4	50	50
3636	Dietetics	Theory	3	50	50
		Practical	4	50	50
3637	Project, Seminar & Cottage stay	Practical	4	50	50
<b>Total marks of VI semester=500</b>					
<b>Total (Semester V + VI) =1000</b>					

**Note:** "Computer course" and "Six month course in Environmental Science" will be compulsory as per the directives of state government and Supreme Court respectively. (Regulation-1473 of university)

**Code Information:**

- a) First digit indicates the year of the degree course.
- b) Second digit indicates serial number of the semester.
- c) Last two digits indicate serial number of paper.

e.g.: Code no. 111: Means; First year, First semester, First paper

SEMESTER-V

**Community Development**

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Code No.	: 3526	Max. Marks	: 50
Periods/Week	: 3		

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Unit- I: Community Development

- Meaning & principles, Philosophy of community development organization.
- Functions of community development organization.
- Community problems- Rural and Urban regarding social, educational and health

Unit- II: Community development programmes

- Integrated Rural development programmes
- Self-help group
- National rural employment programmes
- Integrated child development scheme
- National adult education programmes

Unit III: Characteristics and goals of rural & urban community.

- Factors affecting the urban & rural development

**Books Recommended:**

1. Educational techniques in C.C.- J. Bose, Bombay orient longmans, 1965, Hand book of A.V. Aids, Mohanty B.B., KitabMandal, 1961)
2. Extension education in community development directorate of extension, Ministry of food & agriculture, Government of India, New Delhi.
3. Rural development in India- Patnayak Rama

## Household Equipments

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Code No.	: 3527	Max. Marks	: 50
Periods/Week	: 3		

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Unit- I: Introduction to household equipments, Materials used for household equipments: Base materials, finishes and insulating materials.

Unit- II: Classification of equipments- Electrical (Microwave oven, Refrigerator, Mixer and Grinder, Washing Machine, Vacuum Cleaner etc.) & Non-Electrical (Cooker, Gas stove, water filter etc.). Basics of electricity-wiring & circuits, motors, safety devices and electrical accessories.

Unit III: Factors affecting selection of equipment, use and maintenance of household equipments.

Unit-IV: Energy crisis- conventional and non-conventional energy sources, conservation of energy, solar household equipments.

### **Books Recommended:**

1. House hold equipment- By Louise Jenison Peet
2. Home Appliances- By Wikipedia
3. Household equipment- Selection & Management- By Wilson Patricia P.
4. Household Appliances- By Braves & Noble
5. Trouble shooting and repairing of major appliances- By Eric Weinert

**Children with Developmental Challenges & Assessment (Theory)**

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Code No. : 3528 Max. Marks : 50  
Periods/Week : 3

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Unit- I: Mentally Challenged and gifted children.

- a) Definition, Classification
- b) Causes, characteristics, prevention
- c) Educational considerations, management, intervention and rehabilitation.

Unit-II: Children with sensory disabilities:- Visual and Hearing impaired and children with communication disorders .

- a) a Definition, Classification
- b) Causes, characteristics, prevention
- c) Educational considerations, management, intervention and rehabilitation.

Unit-III: Children with physical disabilities and neurological impairments.

- a) Definition, Classification
- b) Causes, characteristics, prevention
- c) Educational considerations, management, intervention, treatment and rehabilitation.

Unit-IV Socially and emotionally maladjusted children :

- a) Definition, Classification
- b) Causes, characteristics, prevention
- c) Management and Rehabilitation.

**Children with Developmental Challenges & Assessment (Practical)**

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Code No. : 3528 Max. Marks : 50  
Periods/Week : 4

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Practicals :

Developing educational tools for :

1. Mentally challenged and gifted children
2. Children with sensory disabilities.
3. Children with physical and neurological impairments
4. Socially and emotionally maladjusted children

Books Recommended ( Theory and Practical )

1. Berdine W.H., Black Hurst A.E.(1985). Introduction to special education (2<sup>nd</sup> edition ) Lexington, Harper Collins
2. Werner, D (1994). Disabled village children ( Indian edition ) New Delhi, Voluntary Health Association of India.
3. Berdine W.H., Cegelka P.T.(1980). Teaching the trainable retarded, Ohio: Bell and Howell.
4. Bhargava M.(1994). Introduction to exceptional children their nature and educational provisions, New Delhi : Sterline pub.Ltd.
5. Chattopadhyay A (1986). All India directories of educational and Vocational Training institutes for the handicapped, New Delhi : Patriot Publishers.
6. Smith D.D.(1981) . Teaching the learning disabled, New Jersey Prentice Hall.
7. Suran B.G.& Rizzo J.V.(1983). Special children : An Integrative approach, London Scott foreman and Co.
8. NCERT (1987). Planning and Management of ICD programs. New Delhi.

### **Food Service Management (Theory)**

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Code No. : 3529 Max. Marks : 50  
Periods/Week : 3

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Unit- I: Types of Food Service management- Styles of food services, Floor planning & layout

Unit-II: Principles, functions & tools of Management:

- Personal management- Selection & Training, Desirable qualities, personal appearances,
- Financial management- terms used, budgeting & account keeping

Unit-III:

- Selection, care & use of equipments,
- Food & personal hygiene.
- Types of menu & menu planning

### **Food Service Management (Practical)**

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Code No.	: 3529	Max. Marks	: 50
Periods/Week	: 4		

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#### **Practicals**

1. Preparation of various types of menu cards.
2. Table setting
3. Maintenance of accounts & record keeping
4. Visit to different food service institutions.

#### **Books Recommended (Theory & Practical)**

1. Catering Management – Mohini Sethi and Sujeet Malhan, Pub. Wiley, Eastern , Delhi, Mumbai, Pune
2. Theory of Cookery – Krishna Arora, Pub. Frank brothers & Co., New Delhi
3. Modern Cookery – Thunganna Philips, New Delhi
4. Food and beverages services – Sudhir Andrews, Tata Mcgraw hill Pub, New Delhi
5. Hotel Front Office – Systems and Procedures – Ravi Aggarwal, Sublime Pub., Jaipur

**Traditional Textiles, Embroidery and Costumes of India  
(Theory)**

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Code No.	: 3530	Max. Marks	: 50
Periods/Week	: 3		

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Unit-I: Traditional Textiles of India:

- Study of woven textiles and its significance- Patola, Maheshwari, Chanderi, BaluchariButtidar, Brocades of Banaras, Dacca Muslin, Paithani, Himroo- Amroo, Pitambari, Poccampally, Kum-Khwab, BafthaAbiravan.

Unit-II: Traditional embroideries of India: Study of regional embroideries, its types and significance:-

- Kashmiri
- Manipuri
- Kantha of Bengal
- Kasuti of Karnataka
- Kutch and Kathiyawar of Gujarat
- Phulkari of Punjab
- Applique work of Bihar
- ChambaRumal of Himachal Pradesh
- Chikankari of Uttar Pradesh

Unit-III: Traditional costumes of India: Region wise study of contemporary costumes of men and women.

- Northern region- Kashmir, Punjab.
- Western region- Maharashtra, Gujarat, Rajasthan, Uttar Pradesh.
- Eastern region- Bengal, Assam, Manipur.
- Southern region- Karnataka, Andhra Pradesh, Kerala, Tamil Nadu.



**Traditional Textiles, Embroidery & Costumes of India  
(Practical)**

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Code No.	: 3530	Max. Marks	: 50
Periods/Week	: 4		

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1. Preparation of traditional hand embroidery samples using traditional motif, stitches, colors and fabric of the following regions:

- Kashmiri
- Manipuri
- Kantha of Bengal
- Kasuti of Karnataka
- Kutch and Kathiyawar of Gujarat
- Phulkari of Punjab
- Applique work of Bihar
- ChambaRumal of Himachal Pradesh
- Chikankari of Uttar Pradesh

**Books Recommended (Theory & Practical)**

1. Traditional embroideries India- ShailajaNaik
2. Indian Embroidery- KamaladeviChattopadhyay
3. Ethnic Embroidery of India- UshaShrikant
4. Household Textiles and laundry work- DurgaDeulkar
5. Traditional Indian Costumes and Textiles- ParulBhatnagar
6. Indian costume- AnamikaPathak
7. Indian costume- A. Biswas
8. Master piece of Indian textiles- Rustam Mehta
9. Vastra- shastra- Sow. Vimal Adhau
10. Vastra- Shastrachisankalpana and Fashion designing-  
Dr. Vairagade, Prof. AnvitaAgrawal.

**Entrepreneurship Development & Management (Theory)**

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Code No.	: 3531	Max. Marks	: 50
Periods/Week	: 3		

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- Unit-I: Entrepreneurship: Definition, Need, Scope, Characteristics of an entrepreneur, entrepreneurship development, employment promotion, identification of opportunities.
- Unit- II: Business environment for the entrepreneurs, central government & state government policies towards promotion of entrepreneurship.
- Unit- III: Marketing & Sales management- Marketing strategy packaging, advertising, labeling and pricing.
- Unit- IV: Legislations: Licensing, registration, municipal laws, business ethics, consumer complaint redresser.

**Entrepreneurship Development & Management (Practical)**

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Code No. : 3531 Max. Marks : 50  
Periods/Week : 4

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**Practicals**

1. Development of processed food products & its marketing such as spices & condiments, nuts & oil seeds.
2. Survey of 5 successful entrepreneurs from the field of home science.

**Books Recommended (Theory & Practical)**

1. A Handbook of Entrepreneurship, Edited by BS Rathore and Dr JS Saini; Aapga Publications, Panchkula (Haryana)
2. Entrepreneurship Development by CB Gupta and P Srinivasan, Sultan Chand and Sons, New Delhi
3. Environmental Engineering and Management by Suresh K Dhamija, SK Kataria and Sons, New Delhi
4. Environmental and Pollution Awareness by Sharma BR, SatyaPrakashan , NewDelhi
5. Thakur Kailash, Environmental Protection Law and policy in India: Deep andDeep Publications, New Delhi
6. Handbook of Small Scale Industry by PM Bhandari
7. Marketing Management by Philip Kotler, Prentice Hall of India, New Delhi
8. Total Quality Management by Dr DD Sharma, Sultan Chand and Sons, NewDelhi.
9. Principles of Management by Philip Kotler TEE Publication
10. Entrepreneurship Development by Desai V., Himalaya Publishing house, Mumbai.

**Syllabus of Third Year B.Sc.(Home Science)**

**SEMESTER-VI**

**Home Science Extension Education**

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Code No.	: 3632	Max. Marks	: 50
Periods/Week	: 3		

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Unit-I: Extension education

- Meaning, principles, philosophy and objectives
- Role of extension education in rural development
- Role of extension worker

Unit-II: Approaches to extension education

- Individuals, group, mass contact.
- Use of audio-visual aids in extension education

Unit-III: Home science extension education

- Meaning, objectives & principles of home science extension education
- Scope & need of home science education in different areas
- History & development of home science education in India
- Home science extension education in national development

**Books Recommended:**

1. Adivi Reddy, Extension Education, Bapala Publication, Bapala
2. Chandra A. Introduction to Home Science, New Delhi
3. Chandra A., Shah A. and Joshi V., Fundamentals of teaching home science.
4. O.P. Dhama and O.P. Bhatnagar. Education and communication for development.
5. G.L. Ray, Communication and Extension Management.
6. DevdasRajmal, Methods of teaching Home Science
7. Devdas, R.P. Facts of Home Science education, Rural Institute, 1988.
8. Supe, S.V. An Introduction to extension education, New Delhi, Oxford ADIBH, Publishing company, 1983
9. Adivi Reddy A., Extension Education, Andhra Pradesh, SreeLaxmi press, 1987.

### **Women and Child Welfare (Theory)**

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Code No. : 3633 Max. Marks : 50  
Periods/Week : 3

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- Unit-I: Welfare: Definition, Objectives & Philosophy of Child Welfare, National policy of child welfare, Relevance of Child Welfare in India.
- Unit-II: Problems of school dropouts, problems of child labor, nutritional, educational & emotional deprivation in children specially girl child, child welfare agencies- Government, non-government, national & international child welfare programs.
- Unit-III: Problems & issues related to women: violence, abuse & dowry victimization of women, exploitation of women.
- Unit-IV: Women empowerment: mass media & women empowerment, education, employment & empowerment. Social welfare agencies- Government, non-government, national & international, women welfare programs.

### **Women and Child Welfare (Practical)**

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Code No.	: 3633	Max. Marks	: 50
Periods/Week	: 4		

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#### **Practicals**

1. Visit to child welfare centers such as ICDS, remand home.
2. Visit to non-government organizations working for welfare of child & Women.
3. Survey of child labor.
4. A survey of 5 malnourished children

#### **Books Recommended (Theory & Practical)**

1. Augustine, J.N.(Ed)(1992). The family in Transition, New Delhi, Vikas Publishing House.
2. Corser, Rose (1975). The family ; its structure and function. New York Mac Publishing Co.
3. Rao P. and Rao V.N.(1982). Marriage-The family and women in India, New Delhi, Vikas Publication.
4. Srivastava, A.K.(1986). Social class and family life in India.
5. Walter A. Friedlander and Robert Z Apte (1982). Introduction to social welfare by 3<sup>rd</sup> edn. PHI PVT. LTD. New Delhi.
6. Jai Shree Chandra (1993). Woman and child. Rawat publication, New Delhi.
7. Arya and Subhash C.(1972). Infant child care for the mother. Vikas Publication, New Delhi.
8. Bernard H.W.and Fullness D.W.(1972). Principles of guidance. Allied publishers.
9. Ambron S.R.(1975). Child Development, Rinchart Prep, San Francisco.
10. Saraswathi, T.S. and Kaur, B.(1993). The development of Children, New York : Scientific American Books.

## **Fashion Designing and Textile Industry (Theory)**

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Code No.	: 3634	Max. Marks	: 50
Periods/Week	: 3		

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- Unit-I: Fashion:  
Definition, Elements of fashion, Fashion terminology, Fashion cycle, Fashion Merchandizing- marketing and sales management.
- Unit-II: Fabric embellishment:  
Study of trimmings and decoration-types of trimmings and application in various dresses.
- Unit-III: Computer aided Fashion Designing:  
Introduction to software (Basics of coral draw, Photoshop and illustrator.)Tool bars and menus command, creating movement in drawing.
- Unit-IV: Textile Industry:
- Revolution in clothing industry.
  - Textile industry management- Terminology used, planning of textile business, capital management, support system banks, costing and pricing of products. Industrial organization and management practices.

## **Fashion Designing and Textile Industry (Practical)**

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Code No.	: 3634	Max. Marks	: 50
Periods/Week	: 4		

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### **Practicals**

1. Use CAD draw croqui figure using free hand drawing command.
2. Fashion illustration- Drawing of mechanical croqui, Fleshing of croqui, draping of croqui.
3. Designing five garments on croqui and construction of two garments on any one theme:
  - Summer wear
  - Winter wear
  - Bridal wear
  - Casual wear
  - Formal wear

### **Books Recommended (Theory & Practical)**

1. Fashion design & product management-Corr. Harold & Pomerory John.
2. Clothing for modern-Erwin M.D.
3. Mix & Match trends & traditions-Prakash K.
4. "Fashion Retailing" A multi-channel approach, second edition-Ellen Diamond.
5. Know about fabric and their manufactures-K. Thomas.
6. Handbook of fashion designing-Titu Jindal.
7. Zarapkar cutting and sewing, Part-I & II- Zarapkar, Mumbai.



### **Food Analysis and Quality Control (Theory)**

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Code No.	: 3635	Max. Marks	: 50
Periods/Week	: 3		

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Unit-I: Introduction

- Concept, objectives and need of quality, quality control and quality assurance
- Principles and functions of quality control, quality attributes - qualitative, hidden and sensory, plan and methods of quality control

Unit-II: Sampling:

- Definition of sampling, purpose, sampling techniques requirements and sampling procedures for liquid, powdered and granular materials
- Physio-chemical and mechanical properties: Colour, gloss, flavour, consistency, viscosity, texture and their relationship with food quality.
- Sensory quality control :Definition, objectives, panel selection and their training, subjective and objective methods, TQM and TQC, consumer preferences and acceptance

Unit-III: Food Laws and Regulations in India:

- Objectives, requirements and benefits of food grades and standards (BIS,AGMARK, PFA, FPO, CAC (Codex Alimentarius Commission),Food Safety and Standards Act (FSSA) etc.
- General Hygiene and Sanitation in food industry (GHP, GMP, HACCP, ISO etc.)
- Food adulteration and detection techniques for processed foods.

### **Food Analysis and Quality Control (Practical)**

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Code No.	: 3635	Max. Marks	: 50
Periods/Week	: 4		

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#### **Practicals**

1. Proximate analysis of food samples
2. Food adulteration tests for processed foods
3. Detection of food additives in market samples
4. Cut-out analysis of canned foods
5. Test of sensory evaluation
  - a) Hedonic scale
  - b) Duo-trio test
  - c) Ranking difference
  - d) Triangle test
6. Detection of basic tastes and their threshold values
7. Study of consumer acceptability trial
8. Preparation of various types of food products and their sensory analysis
9. Visits to the quality control laboratories of the food industry, Educational institutions and food testing laboratories/centres.

#### **Books Recommended (Theory & Practical)**

1. Food Analysis Theory and Practices by Pomranz and Meloan
2. Quality Control for the Food Industry (Vol. I and II) by Kramer and Twigg
3. Hand Book of Analysis of Fruits and Vegetables by S Ranganna
4. Laboratory Methods of Sensory Evaluation by Larmond
5. Principles of Food Sanitation by Mariett NG; CBS Publication.
6. Sensory Analysis by Piggot.
7. Food Additives by Mahindru.
8. Hand Book of Food Analysis by S.N. Mahindru
9. The Chemical Analysis of Food and Food Products by Jacobs
10. A First Course in Food Analysis by A.K. Sathe

### **Dietetics (Theory)**

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Code No.	: 3636	Max. Marks	: 50
Periods/Week	: 3		

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Unit-I: Principles of Diet therapy

- Role of Dietitian
- Patient Care & Counseling
- Modification of normal diet for therapeutic purpose
- Soft diet, fluid diet
- Modes of feeding-enteral & parenteral feeding.

Unit-II: Etiology, metabolic changes, clinical manifestations, dietary management in

1. Gastrointestinal disorders

- Diarrhoea
- Constipation
- Peptic ulcer
- Ulcerative colitis

2. Liver disorders-hepatitis, cirrhosis.

3. Weight management- underweight, overweight

Unit-III:

1. Diabetes Mellitus

2. Cardiovascular diseases-Hypertension atherosclerosis

3. Renal disorders-nephritis, Urinary calculi.

### **Dietetics (Practical)**

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Code No. : 3636 Max. Marks : 50  
Periods/Week : 4

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#### **Practicals**

1. Planning & preparation of diet for gastrointestinal disorders.
2. Planning & preparation of diet for liver disorders.
3. Planning & preparation of diet for weight management
4. Planning & preparation of diet for diabetics mellitus
5. Planning & preparation of diet for cardiovascular diseases
6. Planning & preparation of diet for renal disorders.

#### **Books Recommended (Theory & Practical)**

1. Davidson and Passmore, 'Human Nutrition Dietetics, Churchill living-store, New York.
2. Wilson & Fisher, Principles of nutrition, Wiley Eastern Pvt. Ltd, New Delhi.
3. Proudfit and Robinson, Normal and Therapeutic Nutrition, Oxford and IBH Publishing Co, Calcutta, Bombay.
4. Jean Bogert and Briggs, Nutrition and Physical Fitness, W. B. Saunders Company, London.
5. M. Swaminathan, Hand Book of Food and Nutrition, the Bangalore Printing and publishing Co. Ltd. 88 Mysore Road, Bangalore 560 018.
6. B. Srilakshmi, Dietetics, New age-International Pvt. Ltd. Publishers, Madras.
7. Shubhangini Joshi, Nutrition & Dietetics, Tata McGraw hills publications, New Delhi
8. M. Swaminathan, Essential of Foods & Nutrition- Vol. I & II.
9. Antia, F.P., Clinical Dietetics and Nutrition. Oxford Univ. Press: Delhi / Bombay.

### **Project, Seminar and Cottage Stay (Practical)**

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Code No.	: 3637	Max. Marks	: 50
Periods/Week	: 4		

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**Project report & Seminar:**

- The students may be grouped into different batches assigning project of different topics.
- Each student should submit project report and that should be certified by the supervising teachers and the Head of the department/Principal. Total marks for project work is 20 including 10 marks internal and 10 marks external.
- Each student should give seminar on any one of the latest topics of any branch of home science with the help of power point presentation. Total marks for seminar is 10 marks as internal.

**Cottage Stay:**

- One week compulsory residence stay helps the students to act as Manager, cook, maid, hostess, waitress and treasurer based on planning and controlling of the use of the resources.
- Management qualities like leadership, co-operation, understanding, punctuality, skills and abilities, originality, hospitality and sociability will be evaluated. 10 marks allotted to this, is purely internal.

**Note:** Students are supposed to prepare detailed notes of each of above phases of training and write complete report of the whole of practical industrial training which shall be used for the learning and evaluation purposes.