

S-29 June, 2013 AC after Circulars from Circular No.03 & onwards

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**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY**

**CIRCULAR NO.ACAD/NP/B.A.-IIIrd Yr./SEM.-V & VI/09/2013**

It is hereby notified for information of all concerned that, on the recommendation of the Board of Studies in Home Science under the Faculty of Social Sciences, the Hon'ble Vice-Chancellor has accepted the "**New Syllabus of B.A.IIIrd Year, Home Science, Semester-V & VI**" for Model College, Ghansawangi, Dist-Jalna on behalf of the **Academic Council Under Section-14(7) of the Maharashtra Universities Act, 1994 as appended herewith.**

This is effective from the **Academic Year 2013-2014** and onwards.

All concerned are requested to note the contents of this 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/NP/B.A.-IIIrd YEAR/  
Sem-V & VI/2013/23194-203  
**V.C.14[7] A-03.**

Date:- 23-07-2013.

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

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**Copy forwarded with compliments to :-**

**1] The Principal, Model College, Ghansawangi, Dist-Jalna, affiliated to Dr. Babasaheb Ambedkar Marathwada University.**

**Copy to :-**

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

**Dr. Babasaheb Ambedkar Marathwada University.**

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**D R. BABASAHEB AMBEDKAR  
MARATHWADA UNIVERSITY,  
AURANGABAD.**



**MODEL COLLEGE**

**GHANSAGVI, JALNA**

**B. A. III Year**

**HOME SCIENCE**

**SEMESTER SYSTEM**

**( V and VI )**

**(EFFECTIVE FROM - 2013 onwards)**

*Allykhat  
Dr. Nuzhat Sultana  
Chairman - BOS  
Home Science.*

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Fifth</b>
<b>Title</b>	<b>: Food Science and Nutrition</b>
<b>Paper Code</b>	<b>: 501 (A) Core Subject</b>

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### **OBJECTIVE**

Student will acquire knowledge in the following fields.

1. Role of food & functions of food.
2. Nutritional significance of food groups.
3. Different cooking methods.

### **Unit - I Foods**

1. Concept of food.
2. Definition of food, balance diet, optional diet, and deficient diet.
3. Functions of food – psychological, cultural and social.
4. Classification of food by different methods.

### **Unit - II Nutrition**

1. Definition of nutrition, nutrients, recommended dietary allowances, health and malnutrition.

### **Unit - III Nutritional significance of different food stuffs**

Nutritional significance of cereals, pulses, oilseeds, vegetables, fruits, milk & milk products meat, fish and eggs, sugar, jiggery, condiments and spices.

#### **Unit - IV Cooking Methods**

1. Traditional cooking methods :
  - Boiling, trying, roasting steaming.
2. Advanced cooking methods :
  - Pressure cooking, baking, microwave, solar.

#### **PRACTICAL**

1. Weights and major of raw and cooked foods.
2. Prepare market prize list of raw and processed food.
3. Planning and preparation of recipes from food groups.  
(Cereals, pulses, vegetables and fruits, oils seeds, milk and milk product).
4. Survey regarding food packaging, labeling of different products.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Fifth</b>
<b>Title</b>	<b>: Food Science and Nutrition</b>
<b>Paper Code</b>	<b>: 501 (B) Core Subject</b>

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### **OBJECTIVE**

Student will acquire knowledge in the following fields.

1. How digestion of food takes place in the body.
2. Sources, functions and deficiency of nutrients.
3. Different methods of food preservation & food adulteration.

### **Unit – I Digestion of Food**

1. Digestive system
2. Digestion of carbohydrate, protein and fat.

### **Unit – II Nutrients**

(1) Protein (2) Carbohydrates (3) Fats (4) Water  
(5) Water Soluble Vit. B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, C (6) Calcium  
(7) Phosphorous (8) Iron (9) Iodine their classification,  
source, functions, deficiency diseases & R.D.A.

### **Unit – III Food Preservation**

1. Need for food preservation
2. House hold and commercial methods of food preservation.

### **Unit – IV Food Adulteration**

1. Definition & ways of food adulteration.

2. Method of identification of food adulteration.

### **PRACTICALS**

1. Planning and preparation of nutrient rich recipe for higher, middle and lower income group. (Calori, protein, fat, iron, calcium, vitamin A, B1, B2, B3.)
2. Food preservation – jam, jellies, sauce and ketchup.
3. Food adulteration – To identify the adulterants uses in foods.

### **REFERENCES**

1. Seema Yadav “Test Book of Nutrition & Health” Anmol Publications New Delhi.
2. Joshi Shubhangini “Nutrition and Dietetics” Tata MC Graw Hill Pub. Co. New Delhi.
3. डॉ. आशा देऊस्कर “ मानवी पोषण ”, आहारशास्त्र पिंपळापूर प्रकाशन नागपूर.
4. डॉ. त्रीवेणी फरकाळे आणि आशा गोंगे “ पोषण व आहारशास्त्र ”.
5. डॉ. मंजूशा मोळवणे “ आहारशास्त्र ”, कैलाश पब्लिकेशन, औरंगाबाद.
6. प्रा. शोभा वाघमारे “ पोषण व आहारशास्त्र ”, विद्या बूक प्रकाशन, औरंगाबाद.
7. डॉ. इंदिरा खडसे “ अन्नशास्त्र ”, हिमालया पब्लिशिंग हाऊस, नागपूर.
8. डॉ. राजकुमार कांबळे “ अन्न सुरक्षा ”, मेहेता पब्लिशिंग हाऊस, पूणे.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Fifth</b>
<b>Title</b>	<b>: Clinical Nutrition &amp; Diet Therapy</b>
<b>Paper Code</b>	<b>: 502 Supportive Subject</b>

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**OBJECTIVES :**

This course will enable the students :

- (1) To understand the etiology, physiological & metabolic abnormalities of acute & chronic diseases & patient needs.
- (2) To know the effect of various diseases on nutritional status & nutritional & dietary requirements.
- (3) To be able to recommend & provide appropriate nutritional care for prevention & treatment of various diseases.

**CONTENTS :**

**Unit-I**

- a) Concept of Therapeutic diets, need and importance; Types of therapeutic diet – Consistency, texture, Nutrient content; Feeding Practices.
- b) Dietician – qualities, role and responsibilities, need in hospitals and community, qualification.
- c) I.D.A. – Indian Dietetics Association.
- d) Patient care and counseling, assessment of Nutritional status – hospitalized and outdoor patient.

**Unit-II - Drug and Nutrients.**

Drug and Nutrients interactions – effect on ingestion, digestion, absorption & metabolism.

**Unit-II-Herbal Medicines.**

Herbal medicines and homemade remedies for common disorders

**Unit-IV Nutritional Management in following diseases :**

- a) Obesity
- b) Diabetes
- c) Heart diseases – Hypertension & Athero Sclerosis
- d) Cancer
- e) Peptic ulcer
- f) Hepatitis
- g) Nephritis & kidney stones
- h) AIDS

**SESSIONAL ACTIVITIES**

1. Visits to diet counseling centers & report writing.
2. Preparation of diet counseling aids.

## **PRACTICAL**

### **Clinical Nutrition & Diet Therapy.**

- 1) Planning and preparation of therapeutic & modified diet.
  - Clear fluid diet.
  - Fluid diet.
  - Soft diet.
  - Bland diet.
  - High protein diet.
  - High fiber diet.
  - Low fiber diet.
  - Low fat diet.

### **REFERENCES :**

1. B. Srilakshmi, "Dietetics" New age International (P) Ltd. Publishers, New Delhi.
2. Robinson H. Etal, " Normal & Therapeutic Nutrition" Macmillan Publishing Company.
3. Mohan L.K. – And Escott – stumps (2000), Krause's food and Nutrition & diet therapy", 10th Edn. W.B. Saunders Ltd.
4. Shils M.E. Olson J.A., Shike M and Ross, A.C. (1999) Modern Nutrition in health & Disease", 9th Edn. Williamms & Wilkn.
5. Garrow, J.S. James, W.P.T. & Ralph, A (2000) "Human Nutrition & Dietetic" 10th Edn Churchill livingstone. M.A.\_Semester-Ist to IVth Home Science – 46.

6. Williom S.R. (1993) "Nutrition & Diet therapy", 7th Edn Times Mirror / Mosby College Publishing.
7. Davis, J & Sherer, K (1994) " Applied Nutrition & Diet therapy for Nures", 2n Edn. W.B. Aunders Co.
8. Guyton, A.C. and Hall, J.E. (1999) Text book of Medical Physiology, 9<sup>th</sup> Edn. W.B. Sauders Co.
9. Anita F.P. (1973) Clinical dietetics and Nutrition Oxford University Press.
10. V.K. Kaushik, "Reading in Food Nutrition & Dietetics" Vol I, II, & III, Book Enclaved, Jaipur.
11. Swaminathan M.S. (1985) Food and Nutrion VOL II BAPPCO publication.
12. Wallach H. M. & egiri K, "Health care of Women & children in developing countries" Third party publishing company, Oakland California.
13. Joshi Shubhangini, "Nutrition & Dietetics", Tata McGraw hill publishing Co. Ltd. New Delhi.
14. Suitor, C.W. & M.F. Crowley, " Nutrition, Principle & application in Health promotion J.B. hippincott Co. Philadelphia.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Fifth</b>
<b>Title</b>	<b>: Communication Techniques</b>
<b>Paper Code</b>	<b>: 503 Applied Subject</b>

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### **OBJECTIVE**

- i) To understand the role of communication in development.
- ii) To know the process of communication and effects of media.
- iii) To develop the skills in the students about the use of communication methods and media.
- iv) To know the importance of programme, planning implementation of programme and evaluation.

### **Unit – I Concept of Development and Communication**

- 1) Nature scope and functions of communication.
- 2) Principles and patterns of communication.
- 3) Importance and use of ICT in the process of Home Science Communication.
- 4) Factors that help or hinder communication (Barriers in communication, useful, things in communication)

### **Unit – II Communication Process**

- 1) Communication process
- 2) The communication process model
- 3) Rule of five
- 4) Use of channel to transmit the message

- 5) The receive
- 6) Communication noise

### **Unit – III Methods Communication**

- 1) Individual – Interview, Personal Consultation
- 2) Small group – Role play, demonstration
- 3) Mass communication – Printing material audio visuals
- 4) Use and Importance of methods of communication in Home Science.

### **Related Activities (Any two) (20)**

- 1) Preparation of flash card / folder.
- 2) Preparation of poster
- 3) Preparation of power point presentation (CD) on any topic related to Home Science subject.

### **Reference**

1. फरकाडे गोंगे - गृहविज्ञान विस्तार.
2. डॉ. वैरागडे व मुळे - विस्तार शिक्षण आणि सामुदायिक विकास.
3. बा.बा. तिजारो - सामुदायिक विकास आणि विस्तार शिक्षण.
- 4) Dr. Anjali Ghanekar - Communication Skills for effective management.
5. बा.बा. तिजारे - संप्रेषण.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Sixth</b>
<b>Title</b>	<b>: Food Science And Nutrition</b>
<b>Paper Code</b>	<b>: 601 (A) Core Subject</b>

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**OBJECTIVES :-**

1. To understand the basic concept of metabolism of nutrients.
2. The course designed will develop competency to plan and prepare innovative foods.
3. To understand the importance of enrichment of food.

**CONTENTS :-**

**Unit – I : Carbohydrates**

Digestion, Absorption and metabolism of carbohydrates – Glycogenesis and glycolysis, T.C.A. cycle, Pentose Phosphate pathway.

**Unit – II : Proteins**

Digestion, absorption and metabolism of proteins – Anabolism & catabolism, urea cycle.

**Unit – III : Lipids**

Digestion, absorption and metabolism of lipids – Lipolysis & Lipogenesis, importance of essential fatty acids, role of liver and gallbladder.

**Unit – IV : Food Toxins and food microbiology**

**1. Toxins**

- a) Natural toxins – saponin, haemagglutinin, lathyrisms, afa toxin, solanin, tripsin inhibitor, aspergillus, niget.

- b) Accidental – international toxins – pesticides metal packaging.

**2. Microbiology –**

- a) Water Contamination.
- b) Milk contamination
- c) Role of microbiology in food industry.

**PRACTICAL**

**Plan and prepare a nutrient rich recipe,**

- a. Protein - For malnourished children of different Grades and income group.
- b. Calories - Low & high calories diet (fat free recepies)
- c. Fiber - High & Low fiber food.
- d. Minerals - Calcium, Iron and sodium – High & Low.
- e. Vitamins - Vit A, B complex and vit-C

**REFERENCES :**

1. Wallace H.M. & Giri K. 1990 : Health care of women & children in developing countries. Third party publishing co. Oakland California.
2. UNICEF (1994) : The Urban poor & Household food security, UNICEF.
3. IDRC (1993) : Gender, Health & sustainable development.
4. NFHS Reports
5. UNICEF – State of the World’s Children
6. International Nutrition Foundation – Micronutrient Initiative (1999) : Preventing Iron Deficiency in Women & Children : Technical Consensus on view Issues.

7. Gopalan, C & Kour, S [eds] [1989] Women & Nutrition in India, Nutrition Foundation of India.
8. Swaminathan, "Essentials of Food & Nutrition" Vol.II Bappa Publications.
9. V.K. Kaushik, "Reading in Food, Nutrition & Dietetics" Vol I, II, III. Book Enclave, Jaipur.
10. C Vaidya, D.B. Rao, " A text book of Nutrition". Discovery Publishing House, New Delhi.
11. Wilson, Katherine, Fuqua, " Principles of Nutrition", Wiley Eastern Pvt. Ltd. New York.
12. B. Srilakshmi, "Dietetics" New age International (P) Ltd. Publishers, New Delhi.
13. Anita F.P. "Clinical Dietetics & Nutrition", 3rd edition Oxford University Press.
14. Shubhangini Joshi, " Nutrition & Dietetics' Tata McGraw Hill publishing company, New Delhi.
15. Robinson C.H. etal, "Normal & Therapeutic Nutrition" Macmillan Publishing Compnay.
16. Williams S.R., " Nutrition & Diet therapy" C.V. Masby Co.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Sixth</b>
<b>Title</b>	<b>: Food Science And Nutrition</b>
<b>Paper Code</b>	<b>: 601 (B) Core Subject</b>

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**OBJECTIVES;**

1. Students can improve the nutritional quality of food and nutrition.
2. To understand the importance of nutritional foods in our daily diet.
3. To develop and prepare innovative foods.

**Unit-I Meal Planning,**

- a. Importance of meal planning.
- b. Factors affecting on meal planning.
- c. Principles of planning a balanced diet.
- d. Menu planning for different age groups.

**Unit – II Malnutrition**

- a. Definition, causes ,prevalence.
- b. Over and under nutrition.
- c. Nutritional remedies.

**Unit – III Food additives and preservatives**

- a) Leavening agent, bread improvers, stabilizers.
- b) Salt, sugar, spices, oil, common chemical preservatives.

**Unit-IV Non Conventional Food**

Significance of Non-Conventional food, need, production, acceptability and nutritional importance.

### **PRACTICAL**

1. Prepare and preserve pickles, Masale,avala supari, jelly , ketchup,jam, squash, Dry Chutneys etc.
2. Survey of mal-nourished child with corrective measures suggested.
3. Curd formation- variation in temperature and culture.

### **REFERENCES :**

1. UNICEF (1994) : The Urban poor & Household food security, UNICEF.
2. UNICEF – State of the World’s Children
3. International Nutrition Foundation – Micronutrient Initiative (1999) : Preventing Iron Deficiency in Women & Children : Technical Consensus on view Issues.
4. Swaminathan, “Essentials of Food & Nutrition” Vol.II Bappa Publications.
5. C Vaidya, D.B. Rao, “ A text book of Nutrition”. Discovery Publishing House, New Delhi.
6. B. Srilakshmi, “Dietetics” New age International (P) Ltd. Publishers, New Delhi.
7. Anita F.P. “Clinical Dietetics & Nutrition”, 3rd edition Oxford University Press.
8. Shubhangini Joshi, “ Nutrition & Dietetics’ Tata McGraw Hill publishing company, New Delhi.
9. Robinson C.H. etal, “Normal & Therapeutic Nutrition” Macmillan Publishing Compnay.
10. Williams S.R., “ Nutrition & Diet therapy” C.V. Masby Co.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Sixth</b>
<b>Title</b>	<b>: Community Nutrition</b>
<b>Paper Code</b>	<b>: 602 (Supportive Subject)</b>

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### **OBJECTIVES**

This course should enable the students to

1. Effective communication techniques / method.
2. Be able to plan and develop health / nutrition education communication messages.
3. Be able to communicate on various issues related to health and nutritional status of individual and the community.

### **Unit I : Nature and scope of community nutrition.**

1. Nutritional problems of the community and implication for public health.
2. Causes, prevalence, signs & symptoms prevention and treatment of protein energy malnutrition, iron deficiency anemia, iodine deficiency & flurosis.

### **Unit II : Nutrition Education.**

1. Meaning and importance of nutrition education.
2. Methods and evaluation of nutrition education programme.
3. Problems involved in organizing nutrition education programme for the community & how to solve them.

4. National nutritional programme :- ICDS, M.D.M. programme, National Nutrition anemia prophylaxis programme. (N.N.A.P.P.), vitamin A prophylaxis programme & Goiter control.
5. National organizations :- ICAR, ICMR, NIN, CFTRI.
6. International Organizations :- FAO, WHO, UNICEF, CARE.

### **Unit III : Nutritional Assessment.**

Assessment of nutritional status :-

- 1) Anthropometry
- 2) Diet Survey
- 3) Clinical assessment
- 4) Laboratory methods : Biochemical & biophysical.

### **Related Activities (Any Two)**

1. Scrap book regarding mal nutrition.
2. Assignment on national nutrition programme or organizations working in the field of community nutrition.
3. Survey regarding malnutrition.
4. Conduct a study of malnutrition based on anthropometric measurements height, weight, head circumference & arm circumference (One sample).

### References Books

1. Health Nutrition and Diseases.
2. Swaminathan M.S. Essontcals of foods and Nutrition, Vol.II, Bappco Publication.
3. Williams S.R. (1989) Women and Nutritional in India. Nutrition Foundation of India.
4. C Vaidya, D.B. Roo, "A text book of nutrition" Discovery Publishing House, New Delhi.
5. Wallace H. N. & Giri K. 1990 : Health Care of Women & Children in developing counters. Third party publishing co. Oakland California.
6. UNICEF (1994) : The Urban poor & Household food securely, UNICET.
7. IDRC (1993) : Gender, Health & Sustainable development.
8. केळकर शांता, आरोग्य आणि आहार शास्त्र, महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ, मुंबई.
9. डॉ. मोळवणे मंजुषा आहारशास्त्र केलश प्रकाशन औरंगाबाद.
10. प्रा. शोभा वाघमारे नईक पोषण व आहार - विद्या बुक्स पब्लिशर्स, औरंगाबाद.
11. डॉ. आशा देऊसकर, मानकी पोषण आहारशास्त्राची मुलतत्त्वे विद्या प्रकाश नागपुर.
12. डॉ. सुरले.लेले, पोषण व आहारशास्त्राची मुलतत्त्वे विद्या नागपुर.
13. प्रा. फर काडे प्रा. गोमे, पोषण आणि आहारशास्त्र, पिपळापुरे अॅन्ड कं. पब्लिशर्स नागपूर.
14. प्रा.राजकुमार कावळ, अन्नसंरक्षण मेहता पब्लिशर्स हाऊस, पुणे.
15. प्रा. पी. के. कुलकर्णी, आरोग्य व समाज डायमंड, पब्लिकेशन्स, पुणे.

<b>Name of the Course</b>	<b>: B.A. III Year Home Science</b>
<b>Semester</b>	<b>: Sixth</b>
<b>Title</b>	<b>: Family Dynamics &amp; Entrepreneurship Development</b>
<b>Paper Code</b>	<b>: 603 Applied Subject</b>

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### **OBJECTIVE**

- i) To understand marriage & family systems.
- ii) To be aware about the areas of adjustments in the marriage and family.
- iii) To be aware about the need of entrepreneurship & opportunities for entrepreneurship development.

### **Unit – I Marriage**

- i) Definitions & functions of marriage
- ii) Types of marriage : Arranged, love, registered & others- advantages & disadvantages.
- iii) Readiness for marriage – physiological, psychological, economical and others.
- iv) Rasa mate selection – points to be considered (focus on scientific approval).

### **Unit – II Family**

- i) Definitions & functions of the family
- ii) Types of family – Joint, Nuclear, extended.
- iii) Role of Husband & wife – traditional & modern
- iv) Stage of family life cycle.

**Unit – III Adjustments, parenthood & family crisis**

- i) Adjustments in marriage & family, financial sexual, in-laws.
- ii) Parenthood – joys & challenges
- iii) Family crises – Divorce, unemployment, prolonged illness & death.

**Unit – IV Entrepreneurship**

- i) Definition, need, scope & characteristics of an entrepreneur.
- ii) Opportunity for entrepreneurship development
- iii) Women entrepreneurship

**Sessional Activities (Any two) (20)**

- i) Visit to marriage bureau & report writing
- ii) Visit to a small scale industry / cottage industry
- iii) Interviews of successful entrepreneurs & report writing.

**Reference**

1. Kapadia K.M., “Marriage & family in India”, Oxford University Press, Bombay.
2. Landis J.T. & Landis E.M.G., “Personal Adjustment, Marriage & Family”, Prentice Hall International INC, 1975.
3. Rao P. & Rao V.N. “Marriage, Trefamily and women in India”, New Delhi Vikas Publications (1982).
4. Guppy G.R. “Family & Social Change in Modern India”, New Delhi, Vikas Publisher (1976).
5. गोंगे व फरकाडे, “ विवाह व कौटुंबिक संबंध ” विद्या प्रकाशन, नागपूर.