



Malad Kandivli Education Society's
NAGINDAS KHANDWALA COLLEGE
 OF COMMERCE, ARTS & MANAGEMENT STUDIES
 AND SHANTABEN NAGINDAS KHANDWALA COLLEGE OF SCIENCE

(Re-accredited (3rd cycle) by NAAC with 'A' Grade)
 ISO 9001 : 2015 Certified

Autonomous (2016-17)

Educational Excellence Award By Indus Foundation, U.S.A.
 IMC Ramkrishna Bajaj National Quality Commendation Certificate

Providing Syllabus copy of the courses highlighting the focus on employability/
 entrepreneurship/ skill development along with their course outcomes.

Sr. No.	Courses	2016-17	2017-18	2018-19	2019-20	2020-21	Total
1	Bachelor of Commerce (B.COM)	✓	✓	✓	✓	✓	5
2	Bachelor of Arts (B.A)	✓	✓	✓	✓	✓	5
3	Bachelor in Management Studies- (BMS)	✓	✓	✓	✓	✓	5
4	Bachelor of Commerce (Accounts and Finance)- BAF	✓	✓	✓	✓	✓	5
5	Bachelor of Commerce (Banking and Insurance)-BBI	✓	✓	✓	✓	✓	5
6	Bachelor of Commerce (Financial Markets)- BFM	✓	✓	✓	✓	✓	5
7	Bachelor of Science - Information Technology (B.Sc IT)	✓	✓	✓	✓	✓	5
8	Bachelor of Science- Computer Science(B.Sc CS)	✓	✓	✓	✓	✓	5
9	Bachelor of Arts- Multimedia and Mass Communication (B.A.MMC)	✓	✓	✓	✓	✓	5
10	Bachelor of Management Studies- Sports Management (BMS-SM)	X	X	✓	✓	✓	3
11	B. Com. Honours in Actuarial Studies	X	X	X	✓	✓	2
12	B.A. Honours in Apparel Design and Construction	X	X	X	✓	✓	2
13	B. Com. Honours in International Accounting	X	X	X	✓	✓	2
14	Bachelor of Management Studies- E commerce operations	X	X	X	X	✓	1
15	B.Sc. (Honours) in Integrative Nutrition & Dietetics	X	X	X	X	✓	1
16	BBA in Tourism and Travel Management	X	X	X	X	✓	1
17	B.Sc. in Interior Design	X	X	X	X	✓	1
18	Master Of Commerce-(M.COM)- Accountancy	✓	✓	✓	✓	✓	5
19	Master Of Commerce-(M.COM)- Management	✓	✓	✓	✓	✓	5
20	Master of Arts (Economics)	✓	✓	✓	✓	✓	5
21	Master of Arts (Geography)	✓	✓	✓	✓	✓	5
22	Master of Arts (Psychology)	X	X	X	✓	✓	2
23	Master of Science (Information Technology) (M.Sc IT)	✓	✓	✓	✓	✓	5
24	Master's Degree - Sports Management (MSM)	X	X	✓	✓	✓	3
25	Master of Science (Geo-informatics) (M.Sc GeoInformatics)	X	X	X	X	✓	1
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Prof. (Dr.) Moushumi Datta
 I/c. Principal

Nagindas Khandwala College

(AUTONOMOUS)



Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester II

Paper 2023UHND CN: Community Nutrition- II

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21


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NAGINDAS KHANDWALA COLLEGE OF COMMERCE
ARTS & MANAGEMENT STUDIES AND SHANTABEN
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MALAD (W), MUMBAI - 400 064

Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester II

Core course

Paper 2023UHND CN: Community Nutrition- II

Course Objectives

1. To address issues related to waste management and find solutions
2. To acquire knowledge and analyse the challenges faced by women

Course Outcome

After successful completion of the course the learner will be able to:

CO1: Explain the concept of Community Water and Waste Management. (Level: Remember)


CO2: Define the importance of Epidemiology of communicable diseases and its control. (Level: Remember)

CO3: Identify and list down the challenges faced by women. (Level: Understand)

CO4: Explain the basic concepts of White and Green revolution. (Level: Understand)

Modules at a Glance

Sr. No.	Modules	No. of lectures
Module 1	Community Water and Waste Management	15
Module 2	Concept of Epidemiology	15
Module 3	Challenges faced by women	15
Module 4	White revolution and green revolutions	15
	Total	60


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Detailed Syllabus

Module	Topics	No. of Lectures
1	Community Water and Waste Management	15
	<ul style="list-style-type: none"> ● Importance of water to the community, ● Etiology and effects of toxic agents, ● Water borne infectious agents, ● Sources of water, ● Safe drinking water, ● Potable water, ● Waste and waste disposal, ● Sewage disposal and treatment, ● Solid waste and disposal, liquid waste disposal. 	
2	Concept of Epidemiology (Employability)	15
	<ul style="list-style-type: none"> ● Concept of Epidemiology: Study of the epidemiologic approach-determinants of disease preventive & social means. ● Communicable and infectious disease control: Nature of communicable and infectious diseases, infection, contamination, disinfection, decontamination, ● Transmission-direct & indirect, vector borne disease infecting organisms and positive agents, environmental agents and epidemiological principles of disease control. 	
3	Challenges faced by women	15
	Challenges faced by women <ul style="list-style-type: none"> ● Anemia- causes, symptoms, tests, types of anemia, management, ● Menses- sanitary pads, hygiene, early conception, psychological changes, hormonal imbalance 	
4	White revolution and green revolutions	15
	<ul style="list-style-type: none"> ● White revolution and green revolutions- poultry, fishing-revolutions, ● What can we do differently to benefit our community – eg Different organizations / clubs that can be open to benefit the community- ● Practical- pros of cons of each that the students come up with eg laughter clubs, gyms and park 	

Reference Books

1. Wal Ruchi Mishra. S, Encyclopedia of Health Nutrition and Family welfare, Published by Sarup and Sons, new Delhi 2000.
2. Srilakshmi, B. Nutrition Science, New Age International (P) Ltd, New Delhi, 2012
3. Swaminathan, M. Handbook of Food and Nutrition, The Bangalore Printing and Publishing Co. Ltd, Fifth Edition, 2003
4. Reddy, R.s. Nutrition Education, Common Wealth Publisher, First Edition, 2004
5. Park & park, Parks Textbook of Prevention and Social Medicine, 18th edition, M/S Banarasids Bhanot, Jabalpur.


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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester II

Paper 2021UHNDFN: Food Nutrition – II

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester II

Core Course

Paper 2021UHNDFN: Food Nutrition – II

Course Objectives

1. Acquire knowledge on nutritive value, understand the cooking quality factors and develop skills in the preparation and storage of milk and egg products.
2. Acquire knowledge on the structure and nutritive value, understand the processing factors and acquire skills in processing and storage of flesh foods.
3. Acquire knowledge on the myths & ill-effects of sugar

Course Outcome (Employability, Entrepreneurship)

After successful completion of the course the learner will be able to:

1. Understand the importance of milk, fish, meat and health foods.
2. Understand the nutritive value of milk, fish, meat and health foods.

Modules at a Glance

Sr. No.	Modules	No. of lectures
Module 1	Milk and Egg	15
Module 2	Fish and Meat	15
Module 3	Health Foods	15
Module 4	Sugar	15
	Total	60



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Detailed Syllabus

Module	Topics	No. of Lectures
1	Milk and Egg	15
	<ul style="list-style-type: none"> ● Milk- milk and milk products, its composition, impact on quality of milk and eggs during mass production , ● Egg - Structure, composition, uses in diet 	
2	Fish and Meat	15
	Fish and meat - <ul style="list-style-type: none"> ● Composition ● Types ● Nutritive value ● Impact on human health ● Classification ● Fish cookery ● spoilage, storage and preservation 	
3	Health Foods	15
	<ul style="list-style-type: none"> ● Health foods- pre-probiotic ● Functional foods- spices and condiments ● Emerging trends in food technology- bio tech, bio fortification, organic foods, genetically modified food 	
4	Sugar	15
	<ul style="list-style-type: none"> ● Myth ● Alternatives ● Ill effects of sugar on health ● Hidden names ● Related products ● Nutritive value ● Properties ● Artificial sweeteners and its impact on health ● Sugar cookery 	


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Reference Books

1. Potter, N. and Hotchkiss, J.H. Food Science, 5th Ed., CBS Publications and Distributors, Daryaganji, New Delhi, 1998.
2. Shakuntala Manay, Shadaksharaswamy. M (2000) Foods, Facts and Principles, New Age International Pvt Ltd Publishers, 2nd Edition
3. Usha Chandrasekhar, Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi, 2002.
4. Srilakshmi, B. Food Science, New Age International Publishers, New Delhi, 2010
5. Swaminathan, M, Hand Book of Food Science and Experimental Foods, BAPPCO, Bangalore, 1992
6. Brow, A., Understanding Food, Thomson Learning Publications, Wadsworth, 2000.
7. Mehas, K.Y. and Rodgers, S.L. Food Science and You, McMillan McGraw Company, New York, 2000.
8. Parker, R. Introduction to food Science, Delmer, Thomson Learning Co., Delma, 2000.



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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester I

Paper 2018UHNDHC: Healthy Cooking

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester I

Core Course

Paper 2018UHNDHC: Healthy Cooking

Course Objectives

1. Acquire knowledge on different methods of cooking
2. Apply process of different foods
3. Use a combination of foods in the development of food products.

Course Outcome

After successful completion of the course the learner will be able to:

CO1: List down the various cooking methods and use of different utensils and materials while cooking. (Level: Remember)

CO2: State the objectives, techniques, and facts of cooking. (Level: Understand)

CO3: Define importance of healthy baking, micro greens and organic foods. (Level-Remember)

Modules at a Glance

Sr. No.	Modules	No. of lectures
Module 1	Introduction	15
Module 2	Techniques, Myths and Facts	15
Module 3	Healthy Baking	15
Module 4	Microgreens and organic foods	15
	Total	60

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Detailed Syllabus

Module	Topics	No. of Lectures
1	Introduction	15
	Introduction to various cooking methods, utensils and materials- <ul style="list-style-type: none"> ● Baking, ● Roasting, ● Dextrinisation, ● Steam, ● Poach, ● Stir fry/ sauté, ● Deep fry and shallow frying, ● Tandoor, ● Microwave, ● Air fryer, ● Gelatinisation, ● Blanching, ● Broiling etc 	
2	Techniques, Myths and Facts (Skill Development)	15
	<ul style="list-style-type: none"> ● Objective of cooking and preliminary techniques- eg Folding, cutting. Grinding, chopping, julienne, cube chopping etc. ● Right way of cooking- how to retain nutrients while cooking ● Myths and facts of cooking- pertaining to different cooking techniques and methods 	
3	Healthy Baking (Skill Development)	15
	<ul style="list-style-type: none"> ● Healthy Baking - Concept of Sourdough, gluten free biscuits and cookies, ● Benefits and breaking the myths, 	
4	Microgreens and organic foods (Skill Development)	15
	<ul style="list-style-type: none"> ● Microgreens and organic foods- how to grow your microgreens, ● Benefits, ● Correct way of utilising microgreens ● Which microgreen to be used in which condition ● Organic foods- organic farming, biopesticide, side effects of pesticides 	

Application for Theory.

1. Demonstration of different cooking techniques
2. Healthy baking- biscuits, cookies
3. How to make sourdough bread and pizza base
4. How to bake healthy cakes
5. How to grow your microgreens


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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester I

Paper 2017UHNDCS: Communication and Counselling Skills - I

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester I

Core Course

Paper 2017UHNDCS: Communication and Counselling Skills - I

Course Objectives

1. Understand the concept of personality and its development
2. Identify the basic principles of communication
3. Develop written communication skills for everyday and professional communication
4. Develop oral communication skills to participate independently in conversations and discussions conducted in English at medical forums.

Course Outcome

After successful completion of the course the learner will be able to:

CO1: Define attitude, goals, and values. (Level: Remember)

CO2: Explain the key concepts of transactional analysis. (Level: Understand)

CO3: Explain the basics of Personality development. (Level: Understand)

CO4: Demonstrate a better understanding of the communication process by using communication skills. (Level: Apply)

Modules at a Glance

Sr. No.	Modules	No. of lectures
Module 1	Introduction and Concepts	7
Module 2	Transactional Analysis	7
Module 3	Personality Development	8
Module 4	Communication Skills	8
	Total	30



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Detailed Syllabus

Module	Topics	No. of Lectures
1	Introduction and Concepts	7
	<ul style="list-style-type: none"> ● Self- concepts, attitudes, goals and values. 	
2	Transactional Analysis	7
	<ul style="list-style-type: none"> ● Introduction to transactional analysis - <ul style="list-style-type: none"> ○ ego states, ○ types of transactions, ○ social time structuring, ○ games, stamps, ○ rackets, ○ strokes and scripts. 	
3	Personality Development (Skill Development, Employability, Entrepreneurship)	8
	<ul style="list-style-type: none"> ● Building self- esteem, ● Social skills, ● Assertiveness ● Training and leadership. 	
4	Communication Skills (Skill Development, Employability, Entrepreneurship)	8
	<ul style="list-style-type: none"> ● Definition, ● Listening, non-listening, verbal and non-verbal communication (body language) ● Barriers to communication. 	

Reference Books

1. Bob Wright, Skills for Caring, Communication Skills, 1992, Churchill Livingston.
2. Prasad L.M., Principles and practice of Management, Sultan Chand and sons, New Delhi, 1999.
3. Jee Curroie, Bare Foot Councillor, Bangalore.
4. Morgan and King – Introduction to Psychology
5. Briany Thomas (ed) Manual of Dietetic Practice. 1986, Published by British Dietetic Association.


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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester I

Paper 2013UHND CN: Community Nutrition - I

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester I

Core Course

Paper 2013UHND CN: Community Nutrition - I

Course Objectives

1. Get acquainted with special cultural and political characteristics of various communities.
2. Understand the status and health problems in rural areas.

Course Outcome

After successful completion of the course the learner will be able to:

CO1: Explain the concept of assessment of health status and its relevance in community nutrition. (Level: Remember)

CO2: Discuss about different nutritional intervention programmes. (Level - Understand)

CO3: Identify and state role of various International Organizations and Voluntary services. (Level: Remember)

CO4: Discuss the role of education in nutrition and methods of socio-economic analysis. (Level: Understand)

Modules at a Glance

Sr. No.	Modules	No. of lectures
Module 1	Assessment of Health Status	15
Module 2	Nutritional Intervention Programmes	15
Module 3	International organizations and Voluntary Services	15
Module 4	Education	15
	Total	60


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MALAD (W), MUMBAI - 400 054

Detailed Syllabus

Module	Topics	No. of Lectures
1	Assessment of Health Status (Employability, Entrepreneurship)	15
	<ul style="list-style-type: none"> ● Assessment of Nutritional status – Anthropometric method, Biochemical, Clinical Examination and Dietary survey. ● Malnutrition – Etiology, measures to overcome malnutrition 	
2	Nutritional Intervention Programmes	15
	<ul style="list-style-type: none"> ● School Lunch Programmes – ICDS, TINP ● National Research Institutions – ICMR, CFTRI, NIN - its role and contribution in nutrition science 	
3	International organizations and Voluntary Services	15
	<ul style="list-style-type: none"> ● International organizations – WHO, FAO, UNICEF, World Bank ● Voluntary services – AIWC, AFPRO, HSAI 	
4	Education	15
	<ul style="list-style-type: none"> ● Nutrition education ● Counselling – meaning, aims, objectives, training programs ● Approaches and methods of socio – economic analysis, Rapid Assessment Procedures, rapid rural appraisal, surveys ● Case studies, observation and participant observations. 	
	TOTAL	60

Reference Books

1. Wal Ruchi Mishra. S, Encyclopedia of Health Nutrition and Family welfare, Published by Sarup and Sons, new Delhi 2000.
2. Srilakshmi, B. Nutrition Science, New Age International (P) Ltd, New Delhi, 2012
3. Swaminathan, M. Handbook of Food and Nutrition, The Bangalore Printing and Publishing Co. Ltd, Fifth Edition, 2003
4. Reddy, R.s. Nutrition Education, Common Wealth Publisher, First Edition, 2004
5. Park & park, Parks Textbook of Prevention and Social Medicine, 18th edition, M/S Banarasids Bhanot, Jabalpur.


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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester I

Paper 2016UHND CNP: Community Nutrition I Practicals

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester I

Core Course

Paper 2016UHND CNP: Community Nutrition I Practicals

Course Objectives

1. Get acquainted with special cultural and political characteristics of various communities.
2. Understand the status and health problems in rural areas.

Course Outcome

After successful completion of the course the learner will be able to:

CO1: Prepare & develop different types of visual aids suitable for community nutrition programmes. (Level- Apply)

CO2: Organize different techniques for imparting the knowledge of nutrition to the Community (Level- Apply)

Practicals (Employability, Entrepreneurship)

1. Assessment of nutritional status of an individual community using anthropometry and dietary survey.
2. Visit local health centers to identify clinical signs and symptoms of nutritional problems.
3. Visit to an ICDS block.
4. Development of audio visual aids.
5. Planning, implementation and evaluation of nutrition education for a target group.

Reference Books

1. Wal Ruchi Mishra. S, Encyclopedia of Health Nutrition and Family welfare, Published by Sarup and Sons, new Delhi 2000.
2. Srilakshmi, B. Nutrition Science, New Age International (P) Ltd, New Delhi, 2012
3. Swaminathan, M. Handbook of Food and Nutrition, The Bangalore Printing and Publishing Co. Ltd, Fifth Edition, 2003
4. Reddy, R.s. Nutrition Education, Common Wealth Publisher, First Edition, 2004
5. Park & park, Parks Textbook of Prevention and Social Medicine, 18th edition, M/S Banarasids
6. Bhanot, Jabalpur.


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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester I

Paper 2014UHNDENP: Food Nutrition - I Practicals

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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ARTS & MANAGEMENT STUDIES AND SHANTABEN
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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester I

Core Course

Paper 2014UHNDFNP: Food Nutrition - I Practicals

Course Objectives

1. Acquire knowledge of the food composition and chemistry of different food products.
2. Understand various food processing techniques, nutritional and physicochemical changes that occur during processing of foods.
3. Gain knowledge of various food additives and its application in food processing.

Course Outcome

After successful completion of the course the learner will be able to:

CO1: Identify various types of foods and food groups. (Level: Remember)

CO2: Demonstrate different cooking techniques to help them understand cooking practices. (Level: Understand)

CO3: Apply scientific thinking in the analysis, synthesis and evaluation of knowledge within the discipline of food nutrition. (Level: Apply)

Practicals (Employability, Entrepreneurship)

1. Identification of foods and food groups, types of vegetables, nutritive value of fruits and vegetables
2. Detection of toxins and adulterants of some of the common foods
3. Demonstration of different cooking techniques with nutrient loss, grilling, poaching, steaming, tandoor etc
4. Prepare one recipe in each food group indicating best method of cooking
5. Survey of marketed processed and labelling of processed food items

Reference Books

1. Shakuntala Manay, Shadaksharaswamy. M (2000) Foods, Facts and Principles, New Age International Pvt Ltd Publishers, 2nd Edition
2. Usha Chandrasekhar, Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi, 2002.
3. Srilakshmi, B. Food Science, New Age International Publishers, New Delhi, 2010
4. Swaminathan, M, Hand Book of Food Science and Experimental Foods, BAPPCO, Bangalore, 1992
5. Brow, A., Understanding Food, Thomson Learning Publications, Wadsworth, 2000.
6. Mehas, K.Y. and Rodgers, S.L. Food Science and You, McMillan McGraw Company, New York, 2000.
7. Parker, R. Introduction to food Science, Delmer, Thomson Learning Co., Delma, 2000.


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Syllabus and Question Paper Pattern

Of

Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme

First Year

Semester I

Paper 2015UHNDNSP: Nutrition Science I Practicals

Under Academic Autonomy and Credit, Grading and Semester System
With effect from Academic Year 2020-21

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ARTS & MANAGEMENT - SHANTABEN AND SHANTABEN
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Syllabus of Courses of B.Sc. (Honours) in Integrative Nutrition & Dietetics Programme at
Semester I

Core Course

Paper 2015UHNDNSP: Nutrition Science I Practicals

Course Objectives

1. Understand the Composition and structure of carbs, proteins & fats
2. Relate the Physiology of the human body with Food and Nutritional requirements

Course Outcome

After successful completion of the course the learner will be able to:

CO1: Describe critical understanding of principal aspects in nutrition, health, and well-being. (Level - Remember)

CO2: Define qualitative analysis of oils and fats in different food groups. (Level - Understand)

CO3: Demonstrate measurements of BMR, RMR, and use of calipers. (Level - Apply)

Practicals (Employability, Entrepreneurship)

1. Estimation of carbohydrate in fruits and vegetables
1. Estimation of protein by biuret method
2. Qualitative analysis of oils and fats in pulses/food & carbohydrates
3. Demonstration of measuring BR, RMR, use of calipers
4. Checking the pH of foods

Reference Books

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2. Srilakshmi. B., Nutrition Science, New age International (p) ltd, publishers, 2004.
3. Frances sizer and Ellie whitney, Nutrition Concepts and Controversies, Thomson wadsworth Publisher, New York, 2006.
4. Mangale Kango, Normal Nutrition, Curing Diseases through Diet, CBS publication, First edition, 2005.
5. Paul. S., Text of Bio Nutrition Fundamental and Management, RBSA Publishers, 2003
6. Journal of Nutritional science
7. American Society for Nutrition
8. Journal of Nutritional biochemistry
9. Indian Journal of Nutrition and dietetics, Nutrition Review