

DEPARTMENT OF HOME SCIENCE WITH FOOD BIO-TECHNOLOGY

BASIC SCIENTIFIC RESEARCH - UGC

- COURSES OFFERED AND OBJECTIVES OF THE DEPARTMENT
- UTILIZATION PATTERN OF THE THREE INSTALLMENTS OF BSR – INFRASTRUCTURE GRANT
- OUTPUT OF BSR GRANTS
 - PROJECTS
 - RESEARCH PUBLICATIONS

COURSES OFFERED

Courses	Year of Affiliation
B.Sc. Home Science with Food biotechnology	1961 - 2062
Diploma in fashion designing	2002 - 2003
M.Sc. Human Nutrition and Nutraceuticals	2004 - 2005

ADD ON COURSES

Courses	Year
Certificate Course in Garment Construction	2006 - 2010
Diploma in Tailoring and Embroidery	2006 - 2010
Certificate course in Fashion designing & Apparel making (COP)	2010 - till date
Diploma in Fashion designing & Apparel making (COP)	2011 - till date
Advanced Diploma in Fashion designing & Apparel making (COP)	2012 - onwards
Certificate course in Nutricuisine	2008 - 2010

* (COP) – Career Oriented Programme

OBJECTIVES OF THE DEPARTMENT

- ◆ To empower today's women with entrepreneurial skills to face the challenges of life effectively.
- ◆ To make them self-reliant.
- ◆ To equip the Home Scientists to play the dual role of the professional and homemaker efficiently.
- ◆ To explore ways & means to strengthen the industry - institution tie-up in order to prepare the students to meet the industrial expectations through internship in hospitals and industries (in-plant training & on the job - hands on experience).

- ◆ To kindle the scientific approach of the students towards research.

UTILIZATION PATTERN OF THE THREE YEAR INSTALLMENTS OF BSR GRANTS

2007 - 2008

Out of the total grant of ₹ 5, 00, 000/- received a major amount of ₹ 1,96,716/- has been utilized to purchase domestic apparatuses and utensils for the Food Science laboratories. The Food Science lab has been utilized by students of Home Science for their major Food Science practicals as well as other major students for their Non - Major Elective - Modern Cookery, Nutrition in Health & Fitness, for Extra Departmental Course - Nutrition & Dietetics offered for the other major PG students and Certificate courses. An amount of ₹ 1 lakh used for purchase of CAD software - Reach Fashion Studio Version - 3 has been extremely used by B. Sc students for their major subject Textiles and Clothing, Clothing and Fashion. It is also used by the Diploma students of Fashion Designing and Garment Construction as well as by student taking up the add-on career oriented courses. Fashion Designing and Apparel Making. About ₹ 2,00,000/- is utilized for the purchase of equipments for the Biochemistry Lab. The equipments Laminar Air Flow Hood, Binocular microscope, Vacuum oven, Cabinet drier and Dessicator are used both by B. Sc and M. Sc students for their practicals and project work.

2008 - 2009

An amount of ₹ 6,00,000/- received towards BSR has been spent for enhancing the Biochemistry, Family Resource Management and Instrumentation Labs.

- ◆ ₹ 1,63,219/- spent for the purchase of TUKAcad for Pattern Making, Grading and Marker making and Mannequines (Lady & Boy) has been utilized for Diploma students and certificate course students.
- ◆ An amount of ₹ 3,67,781/- has been spent for purchase of equipments like Extruder Machine, Orbital shaker with incubator, TLC apparatus, Micropipettes, pipette pump etc. These instruments are being used by B. Sc and M. Sc students for their regular Biochemistry and Techniques in Experimental Nutrition practicals as well as for projects. It also has been utilized by the students of other major students and other colleges for their analytical work.
- ◆ The curios and the furnishing fabrics purchased for FRM Lab (cottage) is being used by the students III year students of Home Science for the skill based paper Interior Design & decoration. The cottage is also being used to entertain guests during the college functions.

2009 - 2010

- ◆ Textile testing equipments like Cloth Stiffness tester, Perspirometer, Shrinkage scale, Thickness tester, Spray rating tester, Drape Tester etc and Hi - Tech serving machine Fashion stitch have been purchased for ` 3,45,028/- These machines used extensively by B. Sc Home Science, Diploma Fashion Designing students and certificate course students for their practicals as well as for the project work.
- ◆ The software for Interior designing and decoration - Revit Architecture Suite 2010 has been installed in the CAD lab and for use by the III B. Sc Home Science students and Diploma Fashion Designing students.
- ◆ Biochemistry Lab has been upgraded by renovating the existing work tables with Lab Island tables inclusive of necessary accessories which is being used by the UG and PG students of HomeScience Department as well as the students from other college. The amount spent towards renovations was ` 2,54,972/-.

OUTPUT OF BSR GRANTS

Group and individual projects are taken up by the students of B.Sc. Home Science, M. Sc Human Nutrition & Nutraceuticals and Diploma in Fashion Designing and Garment Construction

PROJECTS

2006 - 2008

S. No.	Project Title	Field/ Specialization
1.	Standardization of Ready to eat Tofu butter masala.	Product formulation
2.	Formulation and standardization of lotus stem powder incorporated in biscuits.	Product formulation
3.	Study on the nutritive and microbial assay of street foods in selecting areas of Madurai city.	Nutrient Analysis
4.	A study of drumstick leaf powder incorporated convenience food.	Product formulation
5.	Formulation and standardization of products based bread fruit.	Product formulation
6.	Formulation and standardization of fiber enriched vermicelli products incorporating horse gram, jamun seed and lotus stem.	Product formulation
7.	Effect of supplementation of senna (cassia angustifolia on obesity).	Supplementation
8.	Impact of supplementation of spirulina chikkies on the nutritional status of rural preschool children	Supplementation

	(3-6years).	
9.	Formulation and standardization of stevia based cookies.	Product formulation
10.	Biochemical and toxicological screening of selected green algae (ulva lactuca and ulva reticulate).	Nutrient Analysis
11.	A study on assessing the nutritive value of processed Mango fruit products.	Nutrient Analysis
12.	Formulation and standardization of cissus quardangularis incorporated snacks.	Product formulation
13.	Effect of Supplementation of spirulina among the anaemic adolescent girls.	Supplementation
14.	Formulation and standardization of centella asiatick (vallari) powder incorporated bakery products.	Product formulation
15.	Formulation and standardization of fiber enriched vermicelli products.	Product formulation
16.	Comparative study on the nutritive value of fresh and preserved broccoli.	Nutrient Analysis
17.	Formulation and standardization of receipe based on Bamboo shoots.	Product formulation
18.	A comparative study on the constituents of gherkins preserved by acetic acid, vinegar and brine.	Nutrient Analysis
19.	Development of idli batter starter cultures and evolution of idlies for nutritional, textural and sensory quality.	Product development
20.	Effect of supplementation of grapes seed powder on selected Hypercholesterolemic subjects.	Supplementation
21.	Biochemical analysis on certain medicinal plants.	Nutrient Analysis
22.	Standardization of defatted soy flour incorporated cakes.	Product formulation

2007 - 2009

S. No.	Project Title	Field/ Specialization
1.	Effect of supplementation of spirulina incorporated with lemon juice or working women	Supplementation
2.	Formulation of hibiscus incorporated in papaya jam	Product formulation
3.	Nutrient composition and sensory evaluation of beta carotene fortified noodles	Product formulation
4.	Effect of supplementation of green tea among the selected obese college	Supplementation

	lectures	
5.	standardisation of spirulina platensis incorporated in fruit jams	Product formulation
6.	supplementation of spirulina incorporated wheat ladoos among selected anaemic rural school going girls (10-12 years)	Supplementation
7.	Formulation and standardization of horse gram incorporated products	Product formulation
8.	Formulation and supplementation of soy chocolate for the protein energy malnourished school going children (6-8 years) at thathenari Madurai. DT	Product formulation & supplementation
9.	Supplementation of brahmi and its impact on cognitive development among selected adolescent girls	Supplementation
10.	Supplementation of lotus stem powder among the selected anaemic adolescent girls	Supplementation
11.	Effect of spirulina on high fat diet induced obese albino wistar rats	Animal study
12.	Standardization of okara incorporated bakery products	Product formulation

2008 - 2010

S. No.	Project Title	Field/ Specialization
1.	Formulation of selected sea weed incorporated products and creating awareness among lecturers.	Product formulation
2.	Efficacy of centella asiatica (vallarai) powder on the cognitive development of healthy adolescent girls	Supplementation
3.	Effect of pumpkin seed powder incorporated buttermilk on blood cholesterol level among obese adult women	Supplementation
4.	Hypoglycemic effect of moringa oleifera leaf powder in albino rats	Animal study
5.	Standardization of sprouted fenugreek seed powder incorporated wheat flour(Dia flour)	Product formulation
6.	Fortification of noodles with sprouted mung bean	Product formulation
7.	Impact of supplementation of spirulina incorporated nutritious ball on the cognitive development of the selected school going children	Supplementation
8.	A study on nutritive content and microbial load of selected fast food items in madurai city	Nutrient Analysis
9.	Vitamin C fortification of cookies with amla powder	Product formulation
10.	Hypoglycemic effect of soy based products in healthy adolescent girls	Product

		formulation
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2009 - 2011

S. No.	Project Title	Field/ Specialization
1.	Formulation and standardization of Functional foods incorporated chikkies to improve CD ₄ cells.	Product formulation
2.	Impact of Supplementation of iron rich food supplement among anaemic adolescent girls	Supplementation
3.	Formulation and standardization of Horse gram incorporated Novel cookies	Product formulation
4.	Effect of supplementation of traditional herbs on CD4 immune cells among rural adult HIV patients	Supplementation
5.	Dietary intervention of nutraceuticals incorporated chikkies among HIV infected patients	Supplementation
6.	Formulation and Standardization of flax seed powder incorporated wheat flour chappathi	Product formulation
7.	Nutraceuticals components incorporated rava ladoo to improve immunity among AIDS patients	Product formulation
8.	Effect of supplementation of spirulina incorporated chikkies among the selected HIV infected children	Supplementation
9.	Formulation of antioxidant rich spice mix and its feasibility in incorporating in traditional recipe	Nutrient Analysis
10.	Formulation of antioxidant rich chocolate to combat HIV infection	Product formulation
11.	Formulation and Standardization of carrot incorporated cookies	Product formulation
12.	Effect of Quality of water on laundering of cotton	Textiles

ON GOING PROJECT

UGC sponsored Major Research Project entitled "Standardization and supplementation of Functional Foods incorporated chikkis to healthy HIV positive adults of Madurai District".

LIST THE MAJOR PUBLICATIONS/MATERIALS BROUGHT OUT BY THE STUDENTS FROM 2007 ONWARDS

S. No.	Name of the students	Title of the paper	Proceedings	Date & Year
1.	Arunasundari. C	Development & Standardization of Tofu	National seminar on "Home Science A	14 & 15 Dec., 2007

	II PG	Butter Masala	Promising Future Ahead"	
2.	Bala Sundari. D II PG	Sensory Acceptability of Dhal Powder incorporated with sun dried drumstick leaf powder	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
3.	Jeya Sangeetha. L II PG	Herbs in the prevention of obesity	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
4.	Priyatharsini. R II PG	Formulation and Standardization of spirulina incorporated food products	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
5.	Subha. R II PG	Development and Standardization of defatted soy flour incorporated cakes	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
6.	Divya. R I PG	A Study on the use of convenience foods among women in Madurai.	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
7.	Nithya. A I PG	A Comparative study on "Dietary pattern of packed lunch in rural and urban kinder garden children	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
8.	Ramya Siva Selvi. M, I PG	Awareness on health status of adolescent girls in schools at Madurai city	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
9.	Sasi. N, I PG	Problems faced by married working women-school teaching profession	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
10.	Ameena beebi. B I PG	A study on procurement, selection & safety of convenience foods among women in Madurai.	National seminar on "Home Science A Promising Future Ahead"	14 & 15 Dec., 2007
11.	Ameena beebi. B PG alumnae	Impact of supplementation of Arthrospira incorporated with lemon juice on working women	National Conference on "Functional Foods & Nutraceuticals in Preventive Dietetics"	29 & 30 July, 2010
12.	Mahalakshmi. K II PG	Hypoglycemic effect of Moringa oleifera leaf powder on Albino rats	National Conference on "Functional Foods & Nutraceuticals in Preventive Dietetics"	29 & 30 July, 2010
13.	Pavithra Krishna. K.U, PG alumnae	Supplementation of Brahmi and its impact on the cognitive development	National Conference on "Functional Foods & Nutraceuticals in	29 & 30 July, 2010

		among selected adolescent girls	Preventive Dietetics”	
14.	Ramya siva selvi. M PG alumnae	Effect of supplementation of Nelumbilum nelumbo (lotus stem) on Anemic adolescent girls	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
15.	G. Rajeswari II PG	Fortification of noodles with sprouted mung bean flour	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
16.	P. Uma poorani II PG	A study on the glycemic index of selected soy recipes	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
17.	Angel Mary. V, Kirthika. B, Madhivadhana. K, & Meenakshi. G II PG	The Anti diabetic effect of jambul fruit.	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
18.	T. Brahma Vidya Nayagi K.J. Deepika, & B. Vaishnavi II PG	Capsaicin wonderful compound combating various diseases	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
19.	R.Rajiga, II PG	Impact of supplementnaton of Spirulina chikkies ont the cognitive development of selected school going children of sholavandan, Madurai	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
20.	R.Ilakkiya, II PG	Effect of Seaweed soup supplementation among the selected Hyperglycemic college lecturers	National Conference on “Functional Foods & Nutraceuticals in Preventive Dietetics”	29 & 30 July, 2010
21.	R. Bhaargavi	Formulation and Organoleptic evaluation of beta-carotene fortified noodles	National Conference “Nutrition Support by 2020: Conquering challenges - Nutrife(a)st 2008” Nutrition Society of India, Chennai	20 - 22 Nov., 2008

22.	B. Ameena beebi	A Comparison on Nutrient Density of Selected Indian Chinese and Continental Menus Offered in Luxurious Three Star Hotels.	National Conference "Nutrition Support by 2020: Conquering challenges - Nutrife(a)st 2008" Nutrition Society of India, Chennai	20 - 22 Nov., 2008
23.	L. Manju Devi	Formulation and Standardization of Horse Gram Incorporated Products.	National Conference "Nutrition Support by 2020: Conquering challenges - Nutrife(a)st 2008" Nutrition Society of India, Chennai	20 - 22 Nov., 2008
24.	T.S. Harinee	Formulation and Standardization of Spirulina Incorporated Papaya Jam	National Conference "Nutrition Support by 2020: Conquering challenges - Nutrife(a)st 2008" Nutrition Society of India, Chennai	20 - 22 Nov., 2008
25.	L. Lekha	Development of Spirulina Incorporated Wheat Ladoos.	National Conference "Nutrition Support by 2020: Conquering challenges - Nutrife(a)st 2008" Nutrition Society of India, Chennai	20 - 22 Nov., 2008
26.	B. S. Ashwini saras	Effect of Limonord on Inhibiting the Enzyme Triosephosphate Isomerase of Malarial Parasite (Plasmodium Falliparum)	National Conference "Nutrition Support by 2020: Conquering challenges - Nutrife(a)st 2008" Nutrition Society of India, Chennai	20 - 22 Nov., 2008

FACULTY

◆ Dr. Vasantha Esther Rani

Functional foods in prevention and management of metabolic syndromes (2010) edited by Danik Martisoyan - Impact of intervention with Functional food supplement to combat Anemia, the blood iron disorder ISBN – 13 .978-1456382889, Published by Food Science Publishers, Denton, Texas, USA .pp 43-47.

◆ Ms. R. Gandhimathy

An Article on "Formulation and Standardization of Value Added Chikkies" - 4th Indo Korean Conference on Integrative Bio Sciences Research organized by Avinashilingam Institute for Home Science and Higher Education, 2012, Published by Thannambikkai Publications, Coimbatore. ISBN No - 978-93-81102-18-3.