

FATIMA COLLEGE (AUTONOMOUS)



**Re-Accredited with “A” Grade by NAAC (3rd Cycle)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Maryland, Madurai- 625 018, Tamil Nadu, India**

NAME OF THE DEPARTMENT : THE RESEARCH CENTRE OF HOME SCIENCE

NAME OF THE PROGRAMME : PH.D. HOME SCIENCE

PROGRAMME CODE : DSHS

ACADEMIC YEAR : 2020 - 2021

Minutes of the Board of studies - Upgradation of syllabus 2020-21 - Research Centre of Home Science.

The Board of Studies meeting for the upgradation of the syllabus was convened in the Research Centre of Home Science on Feb 28, 2020, for the forthcoming academic year 2020-2021.

The third and fourth semesters for UG and PG were reviewed with respect to self study portions - 10% of syllabus for UG and 20% of syllabus for PG.

The syllabus for Self learning course for UG and PG were scrutinised. ^{Scrutinised}

The service learning program for UG and PG were discussed.

The strategies for Remedial teaching was discussed.

The action taken report was presented in the Board.

The syllabus of the Diploma Course - Fashion Designing & Garment Construction along with Fashion Designing & Apparel making and Surface Ornamentation & Apparel making offered as Certificate courses were also scrutinised.

The modifications, inclusions & deletions were recorded. The members present for the Board of Studies - Upgradation of syllabus 2020-21 are

EXTERNAL EXPERTS

1. UNIVERSITY NOMINEE

DR. D. VIJAYARANI

ASSOCIATE PROF & HEAD,

DEPT. OF HOME SCIENCE.

VVV College For Women.

VIRUDHUNAGAR

D. Vijayarani
28/2/2020

2. DR. S. KANCHANA - SUBJECT EXPERT 1

PROF & HEAD

DEPT. OF HUMAN DEVT.

TNAU, MADURAI.

S. Kanchana
28/2/2020

3. DR. P. L. SRIDEVI SIVAKAMI - SUBJECT EXPERT-2

ASSOCIATE PROFESSOR

DEPT. OF FOOD SERVICE MANAGEMENT
& DIETETICS.

P. L. Sridevi
28/2/2020

AVINASHILINGAM UNIVERSITY,
COIMBATORE.

4. ALUMNAE

MS. SHIV POORNIMA

ASST. PROFESSOR,

DEPT. OF FOOD & NUTRITION

DR GVN INSTITUTE OF MEDICAL
TRICHY. SCIENCES

Shiv Poornima

28-02-2020

5. INDUSTRIALIST.

DR. SURESH GOVINDAN.

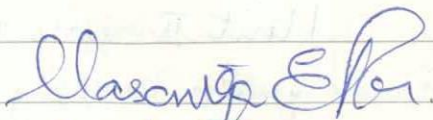
RESEARCH HEAD,

RVN HOSPITALS.

MADURAI.

S. Suresh Govindan
28/2/2020

INTERNALS.

- | | |
|------------------------------------|---|
| 1. DR. VASANTHA ESTHER RANI. |  |
| 2. DR. R. LATHA. | R. Latha |
| 3. DR. S. SANTHI. |  |
| 4. DR. K. KARTHIGA. | K. Karthiga |
| 5. MS. C. HELEN. |  |
| 6. MS. D. MOUNA. | D. Mouna |
| 7. MS. C. PRIMALATHA. | C. Primalatha |
| 8. MS. J. JOSEPHINE JESINTHA. | J. Josephine Jesintha |
| 9. MS. C. BHUVANESWARI. | C. Bhuvaneshwari |
| 10. MS. A. MABEL ESTHER PARIPURAM. | A. Mabel Esther Paripuram |
| 11. MS. R. DHIVYA. |  |

DEAN OF SCIENCE - DR. N. MACATHY

The suggestions given by the Board for the academic year 2019-2020, held on 02.03.2019, were carried out appropriately.

In the third semester, the major core paper Extension Education & Communications - 19N3CC7 was slightly modified by

- including Program Planning in Unit I.
- e-communication methods was included in Unit V, under Audio-visual aids.

In the allied option paper Catering & Hotel Management 19N3AC1, the title of Unit III was changed to "Reservation and Reception".

- The front office component from Unit I has been shifted to Unit II.

- The Reservation, Reception components of Unit II has been shifted to Unit III.

In Semester IV, the major core paper - Basis of Biotechnology - 19N4CC10, Unit I was modified as follows

- title renamed as Biotechnological approaches in food processing.

- Basis of Microbiology - classification of microorganisms Bacteria, Yeast & Mold were added.

Unit II was titled as Spoilage, Contamination & preservation of food.

- In Clothing and Fashion lab - 19N4CC12, inclusion of blouse construction was suggested.

The rest of the papers offered in Semester III & IV - Fiber to Fabric - 19N3CC8, lab in Basics of Clothing 19N3CC9, Clothing & Fashion - 19N4CC11 were found to be satisfactory.

In PG - Human Nutrition & Nutraceuticals, the III & IV semester papers were reviewed and the following suggestions were made.

- In major core 19PG3N12 - Functional Foods & Nutraceuticals in Preventive Dietetics Units I, II & V were modified by deleting the physiological aspects - as a paper exclusively on Applied Physiology. 19PGIN3 has been introduced in the first semester.

- In Unit V - reproductive health has been included.

- In the paper 'Community Nutrition' - 19PG3N13, 'Health Indicators' has been included in Unit IV.

- In the core paper 19PG3N14 - Analytical Instrumentation, 'ICP - Induction Coupled Plasma Spectrophotometry' was included in Unit IV.

- In the lab in Techniques of Experimental Nutrition 19PG3N16, Estimation of acid value in fruits & vegetables has been included.

- In the Core paper 19PG4N18 - Food Microbiology, Unit II was renamed as Food borne infections,

Unit III as Contamination, Spoilage & preventive measures and Unit IV as Food borne Intoxication.

The other major & elective papers - Nutrition in Clinical Care & Disaster, Nutritional Biochemistry, Advanced Food Science & Processing Techniques, Food safety & Quality Control and Institutional Management & Food Product Development were found to be satisfactory.

The add on credit - Computer application - SPSS syllabus was shown to the Board and approved.

The Diploma course Fashion Designing & Garment Construction was reviewed and found balanced. The value added certificate

courses (60 hours) i) Fashion Designing & Apparel making 19UGVA^{CN1} and ii) Surface Ornamentation & Apparel making 19UGVACN2. were scrutinised and to be satisfactory.

- The Self Learning papers - 'Nutrition for Health & Fitness' for UG and 'Sports Nutrition' for PG were framed and approved by the Board.

- The self study component was highlighted in each course and found appropriate by the subject experts of the Board.

- The MOOC online courses taken up by the UG and PG students were discussed.

- The External examiners and subject experts for all lab exams & project VIVA for UG, PG and FDGC were reviewed.

- The industries (Food & Textiles) and hospitals for industrial and dietetic internships were discussed with the Board members.

- Service Learning program for UG - Extension - 'Outreach Program' and 'Community Nutrition Field Work' for PG were discussed in the meeting.

Finally, the feedback about the UG and PG program was collected. The Board members recorded their remarks and suggestions for change on the individual course papers offered for the UG, PG and FDGC courses.

The members for the upgradation of the syllabus 2020-21 of the Research Centre of Home Science appreciated the framework of the syllabus with reference to self study component. Constructive suggestions by the Board elicited appropriate modifications in the respective major, allied & elective papers of the UG, PG and Diploma Course offered by the Research Centre of Home Science.

1. DR. D. VIJAYARANI.
UNIVERSITY NOMINEE

D. Vijayarani
28/2/2020

2. DR. S. KANCHANA
SUBJECT EXPERT - I.

S. Kanchana
28/2/2020

3. DR. P.L. SRIDEVI SIVAKAMI.
SUBJECT EXPERT - II.

P.L. Sridevi Sivakami
28/2/2020

4. MS. SHIV POORNIMA.
ALUMNAE

Shiv Poornima
28-02-2020

5. DR. SURESH GOVINDAN
INDUSTRIALIST

S. Suresh Govindan
28/2/2020

6. DR. VASANTHA ESTHER RAO

V. Vasantha Esther Rao

7. DR. R. LATHA

R. Latha

8. DR. S. SANTHI.

S. Santhi

9. DR. K. KARTHIGA

K. Karthiga

10. MRS. C. HELEN

C. Helen

11. MRS. D. MOVNA

D. Movna

12. MRS. C. PRIYALATHA

C. Priyalatha

13. MRS. J. JOSEPHINE JESINTHA

J. Josephine Jesintha

14. MS. C. BHUVANESWARI

C. Bhuvaneshwari
28.02.2020

15. MS. A. MABEL ESTHER PARIPURNA

A. Mabel Esther Paripurna
28.2.20.

16. MS. DHINYA .R

Dhinya R
28.02.2020

17. DR. N. MALATHY
(DEAN OF SCIENCE.)

N. Malathy

Action taken report of 2019-2020

Suggestions by Board

Action taken

1. In PNICCI - Human Development factors affecting prenatal development, babyhood and habit formation - need to be mentioned

The subheadings were included in the syllabus of 2019-2020.

2. In PN2CC6, Food Science's Nutrition lab, Experimental Cookery was to be mentioned.

Experimental cookery was mentioned in the syllabus of 2019-20.

3. In The Family Resource Mangement now titled as Housing's Art in Home NECC15, Savings, houseplan and landscaping were suggested, to be added.

As suggested, the subheadings were added on to Unit I and Unit III of the syllabus of 2019-20.

4. In 19PG2NY, Functional Foods $\frac{3}{4}$ Nutraceuticals, Bacopa monnieri were suggested to be included.

The suggested herb was included in Unit V.

5. In 19PG2N10, extraction of Bacosides using TLC was suggested

The experiment was added as a demonstration experiment.

28/02/2020



Course III - SYLLABUS - Relevant to research topic

Subject Title: “ROLE OF WHEY PROTEIN SUPPLEMENTATION TO SARCOPENIC OBESE ADULTS WITH TYPE II DIABETES – AN EXPERIMENTAL STUDY”

SUPERVISOR : Dr. Vasantha Esther Rani (Guide), Associate Professor, Research Centre of Home Science and
Dr. K. Karthiga (Co-Guide), Assistant Professor, Research Centre of Home Science, Fatima College, Madurai – 625018.

Research Scholar : Ms. M. Thenmozhi

Subject : FOOD AND NUTRITION

Course code : 20PHDCWP03

SYLLABUS

UNIT – I SARCOPENIA

Introduction, Definition EWGSOP2 - operational definition, Classification, Prevalence and Epidemiology, Pathophysiological changes and Risk factors, Muscle changes with aging, Diagnostic and Evaluation criteria- Muscle mass, Muscle strength, Physical performance Treatment, Hormone therapy, Pharmacotherapy in sarcopenia, Assessment of sarcopenia, factors associated with loss of muscle mass, Biological mechanism, Oxidative stress -Age-Related Remodeling of Neuromuscular Junctions, Changes in Motor Unit Structure and Function, Excitation-Contraction Coupling Regulation in aging skeletal muscle, Alterations in Mitochondria and Their Impact in aging skeletal muscle, Age-Related Changes in the Molecular Regulation of Skeletal Muscle Mass , Role of β -Adrenergic Signalling in Skeletal Muscle Wasting.

UNIT – II SARCOPENIC OBESITY

.Aging and obesity, Pathogenesis and complications of Sarcopenic Obesity –Aging, Lack of Physical Activity, Imbalanced Nutrition, Low-Grade Inflammation, Insulin Resistance, Hormonal Changes, Complications of Sarcopenic Obesity. Clinical Evaluation of the sarcopenic obesity and sarcopenia - Evaluation of body composition, Evaluation of handgrip strength, Evaluation of quality of life, Obesity and Mortality, Clinical Consequences of Sarcopenic Obesity

UNIT – III SARCOPENIA AND DIABETES MELLITUS

Aging and Diabetes and sarcopenia, insulin and insulin resistance, Growth hormone and insulin-like growth factor 1, Diabetes and geriatric syndromes,(SYL BOOK Sarcopenia, Sarcopenic Obesity and Insulin Resistance - InTech (PDFDrive) sarcopenia and diabetes complications - microvascular

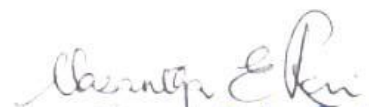
complications - macrovascular complications , Antidiabetic Agents in Sarcopenia - Complications and Reduced Functionality,

UNIT – IV WHEY PROTEIN

Composition, History, Chemical constituents, Production, Major forms of whey protein, Amino acids in Whey protein, Pharmacology of Whey protein, Chemistry of whey protein, Whey protein structure and denaturation, Interaction of other food components, Nutritional properties of whey protein, Nutritional application, Functional properties of whey protein, Applications – Body building, Weight management,

UNIT – V INTERVENTION ON DIET AND PHYSICAL ACTIVITY

Dietary Intervention - Diet and Supplementation, dietary interventions, Medication, Impact on the Quality of Life Nutritional Intervention - Physical Activity and Exercise - Resistance Training, Aerobic Exercise, High-Intensity Interval Training, Multimodal Exercise, Whole-Body Vibration Therapy, Impact of resistance training, aerobic training, and whole-body vibrational therapy in sarcopenia,


Dr. Vasantha Esther Rani
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