

ROYAL SCHOOL OF MEDICAL & ALLIED SCIENCES (RSMAS)

DEPARTMENT OF NUTRITION & DIETETICS

**Ph. D COURSE WORK SYLLABUS PAPER III & IV**

**SYLLABUS (Department of Nutrition and Dietetics)**

**Paper III: Overview of Nutrition and Dietetics**

**L-T-P-C-3-0-0-3 Credit units: 3 Scheme of evaluation: (T)**

**Course Objective:**

The course is developed with the following objectives:

* To provide the students an overview of major areas of nutrition and dietetics.
* To understand the functions of major macro and micronutrients, it’s digestion absorption.
* To give the students the knowledge on the science behind different food groups, food security, nutritional security and food safety.
* To give an understanding of assessing nutritional status and malnutrition.
* To provide knowledge on different institutional food service management.

**Course Outcomes :**

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| --- | --- | --- |
| **On successful completion of the course the students will be able to:** | | |
| **COs** | **Course Outcome** | **Blooms Taxonomy Level** |
| **CO1** | **Relate** major nutritional components that influences health and nutritional status of an individual and communities. | **BT1** |
| **CO2** | **Relate** functions of foods and nutrients in context of health status. | **BT2** |
| **CO3** | **Apply** the strategies to combat malnutrition and disease conditions. | **BT3** |
| **CO4** | **Analyze** the situations and strategize planning for food and nutritional security. | **BT4** |
| **CO5** | **Evaluate** the effectiveness of different measures for effective nutrition. | **BT5** |
| **CO6** | **Adapt** innovative solutions to malnutrition. | **BT6** |

**Detailed Syllabus:**

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| **Modules** | **Topics / Course content** | **Periods** |
| **I** | **Nutritional Biochemistry and Food Safety**  Nutrients- carbohydrates, proteins, lipids and functions, fat and water soluble vitamins and functions, Fibre, Water, Digestion and absorption of nutrients, bioavailability.  Food groups, food security and food safety, HACCP, food fortification and food packaging. | **10** |
| **II** | **Normal and Therapeutic Nutrition**  Human physiology-human body system, diet plan in normal and therapeutic conditions. Nutritional requirements and planning of diet throughout lifecycle and therapeutic diet plan for different disease-communicable and non-communicable diseases. | **10** |
| **III** | **Public Health Nutrition**  Nutrition security, nutritional status, malnutrition, under- and over nutrition, trends in nutritional status in India, Strategies to overcome nutritional challenges- under-nutrition, anaemia, obesity, Nutrition intervention programmes in India, Sustainable development goals, Trends in breast feeding practices in India, Nutrition education, Maternal and child nutrition programmes in India. | **8** |
| **IV** | **Food Service Management**  Meal planning, portion sizing, food service institutes, types of food service, food service equipment, layouts, design, principles of meal service and planning, catering service management and institutional food service. | **8** |
| **Total** | | **36** |

**Textbooks:**

1. **Joshi, S.A., Nutrition and Dietetics,** Tata McGraw Hill Publications, New Delhi, 2004.

2.  **Srilakshmi B.,** Dietetics, New Age International (P) limited Publications, 2004

3. **Gordon. M.** Wardlaw et.al; Contemporary Nutrition, 2nd edition, Publishing by Mosby, 2004.

**References:**

1. Peggy S. Stanfield, Peggy Stanfield, Y. H. Hui. 2010. Nutrition and Diet Therapy: Self-

Instructional Approaches. 5th edition. Jones and Bartlett publishers. Canada.

1. Nutrient Requirement and Recommend Dietary Allowances for Indians by Indian council of Medical research, National Institute of nutrition, Hyderabad.
2. Jim M. & Truswell A.S.2010, Essentials of Human Nutrition. Oxford University Press, 3rd Edition.
3. Manay, N.S. & Shadaksharaswamy, M. 2008, Foods Facts and Principles. 3rd Edition. New Age International (P) limited.

**Paper IV: Project Review and Presentation**

# Objective:

The objective of the course is to familiarize the Ph. D students with different literature related to proposed area of research and to identify the gap in the existing literature.

# Assessment Pattern for Teaching Practice

* 1. 12 hours of discussion with Ph.D guide regarding the literature.
  2. Each Ph. D student shall review a minimum of 26 articles related to the proposed area of research.
  3. A report of the same needs to be compiled under the guidance of the concerned Ph. D guide.
  4. The report will contain the following topics:
     1. Introduction.
     2. Definition of key terminologies
     3. Literature Review (of 26 articles following a specific type of review of literature)
     4. Gap in the existing literature.
     5. Proposed title of research as a conclusion.
     6. References
  5. A presentation of the same needs to be given in presence of the DRC members as a part of examination and accordingly assessment will be done based on the given parameters.

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| **Assessment Criteria:** | | | | |
|  | No. | Criteria | Marks |  |
|  | 1 | Preparation of the material, its content, coverage & quality | 50 |  |
|  | 2 | Presentation  -Quality and Relevance of the topic  -Exhustiveness of the selected papers  -Research Gap/Research Prospects  -Presentation Style  -Overall flow of the Presentation | 25 |  |
|  | 3 | Viva-Voce | 25 |  |
|  |  | Total | 10 |  |