**Course Name: Advanced Nutrition and Life Span**

**Program in which it is offered: BSc Fourth Semester**

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| **Course Category: Minor**  **Course Credit Structure: 3 Course Code: PSY036**  **Total Number of Hours: 45 Contact hours per week:3**  **Lecture: 2 Tutorial: 1 Practical/Practicum:**  **Last Revision Year: 2022 Instructor: TBD** |

**Course Introduction**

This course will enable students to get a greater understanding on Advanced Nutrition and lifespan. The Course will help the students to examine the nutritional needs of humans as they move through the life cycle stages from pre-conception through elder years. It also examines conditions that may alter or substantially impact nutrition at these stages; reviews programs which provide support for food or nutrition education at various life cycle stages; and uses case study data to assess nutrition issues/conditions. Students will assess adequacy of diets as well as design diets to meet needs during various life cycle stages. The course titled, ‘Advanced Nutrition and Life Span ’introduces the students of psychology the physiological basis for nutritional needs of normal, healthy humans as they move through life cycle stages: pre-conception, pregnancy, lactation, infancy, toddler and pre-school, child and preadolescent, adolescent, adult, and elderly. The students are introduced to locate, interpret, evaluate and use professional literature to make ethical evidence based practice decisions. The students are learned to do certain intervention to enhance wellness in a target population taking environmental, food and lifestyle choice into consideration.

**Course Objectives**

1. To familiarize to identify specific nutrient requirements for each stage of the life cycle.
2. To evaluate dietary intakes and feeding programs for individuals throughout the life cycle.
3. To enable the understanding of the importance of environment, feeding skills, psychosocial situations and other factors to total nutrition and eating habits through the lifecycle (development through aging).
4. To identify risk factors associated with major health problems over the life span and acquire appropriate knowledge for addressing through dietary and lifestyle choices.

**Course Outcomes**

At course completion:

1. Demonstrate familiarity with key concepts and principles of nutrition.
2. Evidence competence in analyzing the role of nutrition during the Lifespan growth and development.
3. Indicate the application of the concepts and principles of nutrition and lifespan development in other professional domains such as clinical and counseling psychology, social psychology and public policy.

**Teaching method**

The Course will be taught based Kolbs Learning Style approach. The components are:

1. **Experience** – Students will be exposed to the ideas and principles of community Psychology through TEDX/ other videos.
2. **Reflection:** Reflections and internalization would be done through group activities,

brainstorming sessions and critical thinking group assignments.

1. **Concepts**: Conceptual frameworks will be introduced and internalized through lectures, paper and report review assignments.
2. **Active Experimentation** – Mini student projects will be given for different aspects of community psychology. These will be through various webinars, TED X video reviews and writing assignments

**Module Sessions**

**Module 1: Nutrition: Toddlerhood, and Childhood** **(10 Lecture+ 5 tutorial hours)**

* Sensitive periods and nutrition; A growing infant and toddler; weight gain, motor milestones, Breast feeding, nutrition for the lactating mother; weaning from breast milk and introducing food groups. Cultural and local resources of food. Poverty, deprivation, malnutrition and impact on child development.
* Developmental delays in motor, language and cognition, early childhood interventions for better assessments and identification. Brain and Cognitive Development; key food and diet requirements;
* Deficiencies and impact on growth and development in toddlerhood and childhood: jaundice, blindness, PCM, PICA, Rickets

**Readings**:

* Buttriss, Judith,L.;Welch, Ailsa, A.; Kearney,John,M.; Lanham, Susan,A.(2017) Public Health Nutrition, (2nd Ed.). London: Wiley-Blackwell
* Lanham, Susan,A.; MacDonal, Ian,A.;Rche, Helen,M.(2011) Nutrition and Metabolism ,(2nd Ed). London: Wiley-Blackwell
* Papalia, D. E., Olds, S.W. & Feldman, R.D. (2006). Human Development (9th Ed.). New Delhi: McGraw Hills.

**Suggested Activities:**

**Activity:** (Assignment -Individual): Identify key nutritional deficiencies that affect early

childhood development/Childhood/Adolescence. List the consequences and preventive actions.

**Module 2: Nutrition, Adolescence and Youth (10 Lecture+5 tutorial hours)**

* Adolescence: Food, diets and contemporary lifestyle; junk and processed foods; puberty and nutritional requirement; anemia among adolescents, obesity; body image and eating disorders.
* Sports and exercise behavior, nutrition metabolism and endocrine health. Mental Health and nutrition during adolescence.
* Youth and nutrition requirements; impact of poverty and deprivation; early marriage and pregnancy among young girls.

**Readings**:

* Buttriss, Judith,L.;Welch, Ailsa, A.; Kearney,John,M.; Lanham, Susan,A.(2017) Public Health Nutrition, (2nd Ed.). London: Wiley-Blackwell
* Lanham, Susan,A.; MacDonal, Ian,A.;Rche, Helen,M.(2011) Nutrition and Metabolism ,(2nd Ed). London: Wiley-Blackwell
* Papalia, D. E., Olds, S.W. & Feldman, R.D. (2006). Human Development (9th Ed.). New Delhi: McGraw Hills.

**Activity:** (Assignment –Group): Review evidence on exercise behavior and nutritional requirements during adolescence. Create a nutrition plan each for three adolescents known to you (including you).

**Module 3: Nutrition: adulthood and Old Age (10 lecture Hours+5 tutorial hours)**

* Adulthood, middle age; pregnancies and nutrition requirement among women, specific deficiencies in adulthood; metabolic disorders; sedentary lifestyles and lifestyle disorders; excess of salt and processed food and sugar in nutrition. Nutrition and illness among adults.
* Old age; Nutritional requirements and deficiencies in old; decline in health parameters, maintaining cognitive health in old age.

**Readings**:

* Buttriss, Judith,L.;Welch, Ailsa, A.; Kearney,John,M.; Lanham, Susan,A.(2017) Public Health Nutrition, (2nd Ed.). London: Wiley-Blackwell
* Lanham, Susan,A.; MacDonal, Ian,A.;Rche, Helen,M.(2011) Nutrition and Metabolism ,(2nd Ed). London: Wiley-Blackwell
* Papalia, D. E., Olds, S.W. & Feldman, R.D. (2006). Human Development (9th Ed.). New Delhi: McGraw Hills.

**Activity:** (Assignment - Group): Discuss the nutritional requirements and deficiencies

found among the elderly, with a practicing nutritionist (over phone/person), using a prescribed

questionnaire, by each team member. Collate all the individual documents and present

key findings; suggest solutions.

**Reference Books**

* Berk, L. E. (2010). Child Development (9th Ed.). New Delhi: Prentice Hall.
* Feldman, R.S.& Babu.N. (2011). Discovering the Lifespan. New Delhi:Pearson.
* Papalia, D. E., Olds, S.W. & Feldman, R.D. (2006). Human Development (9th Ed.). New Delhi: McGraw Hill.
* Saraswathi, T.S. (2003). Cross-cultural perspectives in Human Development: Theory, Research and Applications. New Delhi: Sage Publications
* Zimmerman, Maureen (2012) An Introduction to Nutrition. Online publication date:2012, Creative Commons.

**CIA Components**

**Continuous Evaluation is built in in the design of the course. CIA is as follows:**

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| Individual Assignments | 5% |
| Group Assignments | 5% |
| Attendance | 5% |
| Mid-term Exam | 15% |
| End Term Exam | 70% |
| Total | 100% |

CHINMAYA