COURSE NAME : NUTRITION, HEALTH AND ENVIRONMENT

COURSE CODE : FEM 3202

CREDIT : 3 (2+1)

TOTAL STUDENT LEARNING TIME : 120 hours per semester

PREREQUISITE : None

LEARNING OUTCOMES : Students will be able to:

1. Explain basic principles of nutrition, health and environment (C2)

2. Clarify the principles of nutrition in healthy diet planning for sustaining health (C2, CS)

3. Apply method to prevent risk factor of diseases in eating behavior, health and human environment) (C3, P3, CTPS, TS)

4. Relate social, physical, biological environmental factors with health (C4, A4).

SYNOPSIS : This course comprises the principles of nutrition and their interrelationship of health and environment in the context of healthy lifestyle, development impact, socio-culture factor, physical environment, diseases and ways to avoid disease. The importance of sustainable development in the prevention and control of nutritional problem, health and environment is also emphasized.

COURSE CONTENT

<table>
<thead>
<tr>
<th>LECTURES</th>
<th>Contact Hours</th>
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<tbody>
<tr>
<td>Introduction to nutrition, health and environment</td>
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<tr>
<td>- Definition of nutrition, health and environment</td>
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<tr>
<td>- Components of environment</td>
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<td>- Inter-related between environment and human health</td>
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<td>Nutrients in Food</td>
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<tr>
<td>- Carbohydrate</td>
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<td>- Lipid</td>
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<td>- Protein</td>
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<td>- Vitamin</td>
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3. Guideline Diet
   - Food Pyramid
   - Dietary Guidelines

4. Health and Environment
   - Health Models
   - Inter-related between health and environment

5. Influence Social factors on nutrition and health
   - Culture behavior
   - Socio-economic status
   - Lifecycles
   - Lifestyles

6. Environment factors that influencing to health
   - Noise
   - Food pollution
   - Water and air pollution
   - Solid and hazardous waste management

7. Physical and health problem related to nutrition, health and mental.
   - Communicable diseases
   - Non-communicable diseases
   - Mental problem

8. Occupational Health
   - Introduction to occupational health
   - Types of occupation expose to health problems
   - Agents related to occupational health problems

9. Affect of development towards nutrition, health and environment
   - Genetically modified food
   - Convenience food
   - Supplement diet

10. Consumer issues related to nutrition, health and environment
    - Education toward environment and consumerism
    - Act and regulation

**Total** 28
Contact Hours

PRACTICALS : 1. Introduction to laboratory and equipments 3
2. Dietary intake metodology 6
3. Nutrient composition analysis 6
4. Healthy Diet Planning 3
5. Anthropometry Measurement 3
6. Biochemical Test 3
7. Fitness Test 3
8. Talk on social diseases, health and environment 3
9. Noise test and air pollution 3
10. Side visit to related agencies 9

Total 42

EVALUATION : Course Work 70%
Final Examination 30%