Title of Module:

Public Health Nutrition

Coordinator(s) / organiser(s):

Trias Mahmudiono, S.KM, M.PH(Nutr.), GCAS, Ph.D. (Module Leader)

| Teaching Faculty | | | | |
|------------------|-----------------------|------------------------------------|----------------------|--|
| Title | Name | Qualifications* | Hours contributed | |
| Dr. | Trias Mahmudiono | SKM., M.PH(Nutr)., GCAS., Ph.D. | 24.93 | |
| Professor | Bambang Wirjatmadi | dr., MS., M.CN., Ph.D., Sp.GK. | 20.40 | |
| Dr. | Sri Sumarmi | S.KM., M.Si., Dr. | 24.93 | |
| Dr. | Annis Catur Adi | Ir., M.Si., Dr. | 24.93 | |
| Dr. | Abdur Rohim Tualeka | Drs., M.Kes., Dr. | 13.60 | |
| dr. | Farapti | dr., M.Gizi. | 11.33 | |
| dr. | Erwin Dyah Nawawinetu | dr., M.Kes. | 13.60 | |
| Mr. | Mahmud Aditya Rifqi | S.Gz., M.Si. | 20.40 | |
| Mrs. | Lailatul Muniroh | S.KM., M.Kes. | 24.93 | |
| Mrs. | Triska Susila Nindya | SKM., M.PH(Nutr). | 18.13 | |
| Mrs. | Maya Saridewi | S.KM., M.Kes. | 15.87 | |
| Ms. | Rian Diana | SP., M.Si. | 13.60 | |

^{*} PhD, Master, 20 years service(in practice) etc. Only provide details for faculty responsible for 25% or more of course load.

| Core /elective or optional: | Core: Introduction to Community Nutrition (NUM301) |
|-----------------------------|---|
| | Elective: Nutrition Education (EDM401) Nutritional Edpidemiology (KME405) Nutrition in Urban Community (NUM318) Food Security (NUM216) Economics of Food and Nutrition (NUM209) Nutrition and Productivity (NUM311) Nutritional Anthropology (SOK103) |

| Number of SKS | Student's workload | Contact work | Self-study work |
|-------------------|--------------------|--------------|-----------------|
| credits allocated | in hours | hours* | hours |
| 17 SKS | 770,67 | 226.67 | 544 |

^{*} includes lectures, seminars, face-to-face, assessments

Learning competences / objectives

On successful completion of this module students will be able to:

- 1. Understand and assess nutritional problems especially the correlation between nutrients in food with the health of human body
- 2. Understand and conceptualize the implementation of calculating nutritional needs
- 3. Examine the main nutritional problems that exist in the community and assess nutritional status
- 4. Explain and describe the epidemiology of nutrition
- 5. Explain the concept / paradigm of food security
- 6. Determine the correlation between the economy of food and nutrition and human health
- 7. Conduct feasibility analysis and evaluation of the economic problems
- 8. Explain the nutritional principles for increasing work productivity
- 9. Explain the theory and concept of anthropology in community and human nutrition, as well as socio-cultural factors related to consumption

Syllabus content. Brief overview of syllabus using bullet points.

Introduction to Community Nutrition:

- History of the development of nutrition science
- Understanding the scope of nutrition science
- Understanding the role of food and nutrients for health
- The need and adequacy of nutrients including the nutritional adequacy of various physiological groups according to the life cycle (from preconception to the elderly)
- Understanding and assessing key public health nutrition problems in the community (protein energy malnutrition, anemia, iodine deficiency, vitamin A deficency, obesity)
- Methods of determining the state of nutrition at the community level

Nutrition Education:

- Understanding the correlation of research, theories and practices
- Explaining the nutrition problems in the community (dietary and food choices determinants, behavioral change theory and research)
- Designing nutritional education media presentations based on behavioral change theory
- Implementation of nutrition education (working with diverse populations, best practice, public policy and ethics)

Nutritional Epidemiology:

- Epidemiological triangle of nutrition
- Nutrigenomic and nutrigenetic
- Determinant, distribution and variable of nutritional epidemiology
- Natural history of nutritional illness
- Observational study design of Nutritional Epidemiology
- Experimental study design of Nutritional Epidemiology

Nutrition in Urban Community:

- Understanding determinants of nutrition problems
- The concept of demographic, epidemiology and nutrition transition
- The complexity of double burden of malnutrition
- Current health and nutrition interventions targeting urban community

Food Security:

• Food security concept/paradigm

- Determinant factors, indicators, systems and condition (global and national).
- Identification and measurement of food insecurity (FIA, ISMAP)
- Social capital and coping mechanism for food insecurity

Economics of Food And Nutrition:

- Correlation between economic variables with food consumption and nutrition;
- Correlation between economic development and nutrition improvement;
- Economic policies and their effects on food and nutrition consumption;
- Principles of minimizing the cost of food consumption,
- Feasibility analysis and evaluation of food and nutrition programs
- Assessment of the economic impact of nutritional problems

Nutrition and Productivity:

- Nutrition issues in institutions (PEM, obesity)
- Nutrition problems in institutions (Anemia, hypertension, hypercholesterolemia, hyperuricemia)
- Specific problems of female workers nutrients (pregnancy, menstruation, lactation)
- Nutrition needs of workers (macro nutrition, micro nutrition)
- Work environment factors that affect the nutritional state of the workers
- Nutrition requirement of workers in hot place
- Nutrition requirement of workers in the place exposed to radiation
- Organizing meal and nutrition program at work

Nutritional Anthropology:

- Introduction to nutritional anthropology
- Food system development
- Food preferences
- Ethnography, ethnicity and eating habits
- Food geometric dimension and consumption
- Food ideology system
- Behavioral adaptation to food and nutrition fulfillment
- Socio-cultural aspects of pregnancy, breastfeeding, infants, children
- Method of anthropological studies of nutrition
- Food consumption: data collection, analysis and interpretation.

Module level timetable - indicate the timing of the teaching sessions from the current and upcoming teaching year:

Introduction to Community Nutrition: 07.00 – 09.00 a.m., Wednesday, 3nd semester

Nutrition Education: 6th semester Nutritional Epidemiology: 6th semester Nutrition in Urban Community: 6th semester

Food Security: 7th semester

Economics of Food and Nutrition: 7th semester

Nutrition and Productivity: 7th semester Nutritional Anthropology: 7th semester

| Pedagogic, | /teacning | metno | aology: |
|------------|-----------|-------|---------|
|------------|-----------|-------|---------|

Scheduled learning includes lectures and group discussions. Lectures are done by two way teaching and learning, where the students may asking questions or give an opinion regarding the subjects and the lecturer may also learn from the student. Lecturer presents the teaching materials with LCD and whiteboard. Group discussion is done by dividing students into groups and give each group a different topic determined by the lecturers.

Independent learning hours includes assignment preparation and completion and self-directed study.

Assessments used:

There are four types of examination:

- 1. Middle examination (35%): essay question
- 2. Final examination (35%): multiple choice question and essay question
- 3. Group presentation (20%)
- 4. Individual soft skill (10%)

Each examination takes 100 minutes includes essays for middle examination and multiple choice questions and essays for final examination to assess the students' knowledge. Soft skill assessment for the group is based on the presentations of the results of the discussion and for the individual on the activity during discussions.

| Weeks | required | and | place | Number of weeks | Week number |
|--|----------------------------------|-----------|-------|-----------------|-------------|
| in academic calendar: Introduction to Community Nutrition Wednesday, 07.00 – 09.00 a.m., Weeks beginning 15/08/2018– 28/11/2018 | | | 16 | 01-16 | |
| Nutrition Ed Weeks begin | ducation nning 02/2020 | - 05/2020 | | 16 | 17-32 |
| | Epidemiology nning 02/2020 | - 05/2020 | | 16 | 17-32 |
| | Urban Commu nning 02/2020 | • | | 16 | 17-32 |
| Food Securi Weeks begi | ty nning 08/2020 | - 11/2020 | | 16 | 01-16 |
| | of Food and Nu nning 08/2020 | | | 16 | 01-16 |
| | nd Productivity nning 08/2020 | | | 16 | 01-16 |
| Nutritional | Anthropology | | | 16 | 01-16 |

| Weeks beginning 08/2020 - 11/2020 | |
|-----------------------------------|--|