

**OUTLINES PROGRAM EDUCATION,  
UNIT OF EVENT INSTRUCTION, &  
CONTRACT LECTURING**



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**PROGRAM STUDY NUTRITION SCIENCE  
FACULTY OF MEDICINE DIPONEGORO UNIVERSITY**

**PROGRAM STUDY STRATA-1 NUTRITION SCIENCE (ILMU GIZI)  
FACULTY OF MEDICINE DPONEGORO UNIVERSITY**

**SUBJECT** : SCIENCE PHILOSOPHY (*FILSAFAT ILMU*)

**SCS/SEMESTER** : 3 SCS/I

**SUPERVISOR** : Prof. dr. HM. Sulchan, MSc, SpGK

**DESCRIPTION** : This study in fact represent introductory subject for the philosophy of and science of Bioetic, therefore its gift/ giving in semester 1 where student not yet ready for study implementation both the things in activity of reality. That is why most its target is to comprehend.

**GENERAL INSTRUCTIONAL TARGET (TIU)** : 1. Comprehending science reality and applying responsibility, to God and for the sake of environment ( natural and social).  
2. Comprehending reality of bioetic and its applying in executing activity of science, especially Nutrition Science (*Ilmu Gizi*).

SPEIFIC INSTRUCTIONAL TARGET	TOPIC	SUB TOPIC	WEEK	REFFERENCES	METHOD of STUDY	LECTURE
	1	2	4	5	6	7
Comprehending definition of philosophy	1 The definiti on of philosop hy	-mean truth -definition of philosophy -study area -philosophy branch -definition of philosophy science	1-2	1. Suria- sumantri, JS. Filsaft Ilmu: Sebuah Pengantar Populer. Jakarta: Pustaka Sinar Harapan, 19 99 2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta ; Liberty, 199 9	1 discourse 2 discus- sion	1. Prof. dr. HM. Sulchan, MSc, SpGK
Comprehending	2 Basic	- Truth	3	same	same	same

truth bases	Knowledge	theory - Mean and concept of the truth - Essence of thinking - Logic - Source of knowledge				
Explain about Ontology Science	3 Ontology	- Definition of Ontology - Various ism in ontology - Change - Assumption - Boundary explore science	4	same	same	same
Explain about Epistemology Knowledge	4 Epistemology	- Definition of Epistemology - Definition of knowledge & science - Erudite method structure - Erudite knowledge	5	same	same	same
Explain Axiology Knowledge	5. Axiology	- Definition of Axiology - Neutrality Science and moral - Social responsibility scientist - Case with high moral wight	6	same	same	same
Explain about medium of erudite thinking	6 Medium erudite thinking	- Variety of medium erudite thinking - Role of language - Role of Mathematics - Role of statistic	7	same	same	same

Comprehending erudite study path and framework.	7 Erudite study bases	- Framework erudite study - Erudite study path - Basic erudite method - Elementary technique of erudite writing.	8-9	idem	idem	idem
Comprehending Ethics	8 Common definition of ethics	- Meaning of ethics - Ethics as value system - Ethics as value principality corps.	10-11	3. Bertens, K. Etika. Jakarta: Gramedia, 1993	same	same
Comprehending bioethics	9 introductory of bioethics	- Definition of Bioethics - History of Bioethics Growth - Application of Bioethics - Bioethics and Law	12	4. International Ethical Guidelines for Biomedical Research Involving Human Subjects. CIOMS, Geneva, 1993 5. International Guidelines for Ethical Review of Epidemiological Studies CIOMS, Geneva, 1991	same	same
Comprehending Declaration of Jenewa & other document about Bioethics	10 Implementation of Bioethics in Service Health.	- Declaration of Jenewa - KEKI - execution mechanism of KEKI - Kode Etik Gizi Indonesia	13-14	Idem + 6. Samil, RS. Etika Kedokteran. Indonesia, Jakarta: Sarwono, 2001. 7. (Draft)	same	same

				Kode Etik Profesi Gizi, 1999 idem	idem	idem
Comprehending principal of bioethics in research to human being	11 impleme ntation bioethics in research to human being	- Principal of bioethics in research to human being - Principal of bioethics in biomedic research - Principal of bioethics in epidemiology research - Mechanism execution of bioethics in research to human being	15-16			

## CONTRACT LECTURING.

SUBJECT	: PHILOSOPHY SCIENCE & BIOETHICS
CODE	: KUG110
SCS (System Credit Semester)	: 3 SCS
SEMESTER	: I
SUPERVISOR	: Prof. dr. Sulchan, MSc, DA.Nutr, SpGK
LECTURER	: Prof. dr. Sulchan, MSc, DA.Nutr, SpGK
SCHEDULE	: Friday, 08.00-10.40 AM
MEETING PLACE	: Room.....

### 1. **BENEFIT of SUBJECT**

This Subject is needed by student since early them comprehend about existence of science method and method of bioethics which must always made by base in activity of Nutrition profession and science in service and research of nutrition.

### 2. **DESCRIPTION of SUBJECT**

This Subject in fact represent introductory, reaching Philosophy Science and of bioethics, because of its gift is executed in semester 1, so that student not yet implementation can the understanding of study both the things in activity of real profession and science in future.

### 3. **INSTRUCTSIONAL TARGET**

#### **General Instructional Target**

##### **(*Tujuan Instruksional Umum/TIU*)**

- Comprehending science reality and its applying responsibility, to God and for environment ( natural and social).
- Comprehending reality of bioethics and its applying in executing activity of science, specially nutrition.

#### **Specific Instructional Target**

##### **(*Tujuan Instruksional Khusus/TIU*)**

- Comprehending congeniality of philosophy
- Comprehending truth bases
- Explaining science ontology
- Explaining science epistemology
- Explaining science axiology
- Comprehending suggestion of erudite thinking
- Comprehending elementary path and framework of erudite thinking
- Comprehending ethics meaning
- Comprehending coverage congeniality of bioethics
- Comprehending declaration of jenewa other document and of bioethics
- Comprehending principle of bioethics in research to human being
- Comprehending execution of principle of bioethics in research of biomedic

#### 4. LECTURING STRATEGY

This lecturing is given in the form of class discourse to present interconnected illustration and concept. Class managed to invite student discussion and attention.

#### 5. READING LECTURING

Book / fundamental reading in this lecturing are:

1. Suriasumantri, JS Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta: Pustaka SinarHarapan,1999
2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
3. Berteens,K. Etika. Jakarta: Gramedia,1993
4. Inthernational Ethical Guidelines for Biomedical Research Involving Human Subjects. CIOMS, Geneva,1993
5. International Guidelines for Ethical Review of Epidemiological Studies. CIOMS, Geneva, 1991
6. Samil, RS. Etika Kedokteran. Indonesia, Jakarta: Sarwono, 2001
7. (Draft) Kode ETik Profesi Gizi, 1999

#### 6. DUTY

Student given duty:

- a. to review Philosophy Science handing out
- b. to review Bioethics handing out
- c. the report of review is presented in class and will be discuss

#### 7. ASSESSMENT CRITERIA

Assessment will be conducted by instructor by using the following criteria:

Value	Point	Range
A	4	4-
AB	3,5	3.5-3.9
B	3	3.0-3.4
BC	2,5	2.5-2.9
C	2	2.0-2.4
CD	1,5	1.5-1.9
D	1	1.0-1.4
E	0	0.0-0.9

In determining final value, will be used the following wight :

Absence	30%
Mid semester evaluation	30 %
End semester evaluation	40 %
Total	100 %

**8. LECTURING SCHEDULE**

<b>MEETING</b>	<b>TOPIC</b>	<b>LECTURER</b>
LECTURING 1	Common Definition of Philosophy	No. 1-2
LECTURING 2	Basics of Knowledge	same
LECTURING 3	Ontology	same
LECTURING 4	Epistemology	same
LECTURING 5	Axiology	same
LECTURING 6	Basic of Erudit Thinking	same
LECTURING 7	Basic of Erudite Study	same
LECTURING 8	Mid Semester Evaluation	same
LECTURING 9	Common definition of Ethics	No 3-7
LECTURING 10	Deliverer of Bioethics	same
LECTURING 11	Implementation of Bioethics in Health Service	same
LECTURING 12	Implementation of Bioethics in Human research	same
LECTURING 13	Review of Philosophy Science Handing Out	No 1-2
LECTURING 14	Review Bioethics Handing Out	No 3-7
LECTURING 15	Presentation Result of Handing Out review	all
LECTURING 16	End Semester Evaluation	same



**UNIT of EVENT INSTRUCTION**

**PHILOSOPHY SCIENCE**

**( Code : KUG 110 )**

**PROGRAM STUDY GIZI SCIENCE**

**FACULTY of MEDICINNES**

**DIPONEGORO UNIVERSITY**

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**LECTURER: Prof. dr. Sulchan, MSc, DA.Nutr, SpGK**

**Semester: I ( one )**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : 1

**A. INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Comprehending common definition about philosophy

**B. TOPIC**

COMMON DEFFINITION of PHILOSOPHY

**C. SUB TOPIC**

- the meaning of truth
- definition of philosophy
- field analysis philosophy
- branch of philosophy
- definition of science philosophy

**D. LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery of the growth of child	Listening and discussing	LCD Projector
PRESENTATION	explain the definition of philosophy	Listening and discussing	LCD Projector
	explain-field-analyse-of philosophy	Listening and discussing	LCD Projector
	Explain branch of philosophy	Listening and discussing	LCD Projector
	give early explanation about Philosophy science	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENSI**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : II

**A. INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Comprehending basics of truth

**B. TOPIC**

BASICS of KNOWLEDGE

**C. SUB TOPIC**

- the theory of truth
- meaning and concept of truth
- essence of thinking
- logic
- source of knowledge

**D. LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery of the basics of knowledge	Listening and discussing	LCD Projector
PRESENTATION	explain meaning and concept of truth	Listening and discussing	LCD Projector
	explain the essence of thinking	Listening and discussing	LCD Projector
	explain the logic	Listening and discussing	LCD Projector
	Explain about source of nowledge	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENSI**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : III

**A. INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Explain Ontology Science

**B. TOPIC**  
ONTOLOGY

**C. SUB TOPIC**

- deffiniton of Ontology
- various ism in ontology
- chance
- assumption
- boundary explore science

**E. LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery about ontology	Listening and discussing	LCD Projector
PRESENTATION	explain definition of ontology	Listening and discussing	LCD Projector
	explain about chance	Listening and discussing	LCD Projector
	explain about assumption	Listening and discussing	LCD Projector
	explain about boundary explore science	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENSI**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : IV

**A. INSTRUCTIONAL TARGET**

**General Instructional Target (Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Explain epistemology science

**B. TOPIC**

EPISTEMOLOGY

**C. SUB TOPIC**

- definition of epistemology
- definition of science and knowledge
- erudite method
- structure of erudit knowledge

**F. LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery of epistemology	Listening and discussing	LCD Projector
PRESENTATION	explain definition epistemology	Listening and discussing	LCD Projector
	explain definition of science and knowledge	Listening and discussing	LCD Projector
	explain about erudite method	Listening and discussing	LCD Projector
	Explain about structure of erudite knowledge	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector



**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENSI**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(*SATUAN ACARA PENGAJARAN SAP*)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : V

**A. INSTRUCTIONAL TARGET**

**General Instructional Target ( *Tujuan Instruksional Umum/TIU* )**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target ( *Tujuan Instruksional Khusus/TIU* )**

Explain about axiology science

**B. TOPIC**

AXIOLOGY

**C. SUB TOPIC**

- definition of axiology
- neutrality science and moral
- social responsibility of scientist
- case with high moral wight
- source of knowledge

**D LECTURING ACTIVITY**

<b>PHASE of ACTIVITY</b>	<b>LECTURER ACTIVITY</b>	<b>STUDENT ACTIVITY</b>	<b>MEDIA &amp; INSTRUMENT LECTURING</b>
ANTECEDENT	explain the matery about axiology	Listening and discussing	LCD Projector
PRESENTATION	explain definition of axiology	Listening and discussing	LCD Projector
	explain neutrality of science and moral	Listening and discussing	LCD Projector
	explain about social responsibility of scientist	Listening and discussing	LCD Projector
	Illustrate science case with high moral wight	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFFERENCES**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, L.G. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : VI

**A. INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Explain about medium of erudite thinking

**B. TOPIC**

MEDIUM of ERUDITE THINKING

**C. SUB TOPIC**

- Various medium of erudite thinking
- role of language
- role of matemathics
- role of statisthic

**D LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery about medium of erudite thinking	Listening and discussing	LCD Projector
PRESENTATION	explain various of medium of erudite thinking	Listening and discussing	LCD Projector
	explain role of language	Listening and discussing	LCD Projector
	explain role of matemathics	Listening and discussing	LCD Projector
	explain role of statisthic	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENCES**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : VII

**B. INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Explain basics of erudite study

**B. TOPIC**

BASICS of ERUDITE STUDY

**C. SUB TOPIC**

- framework of erudite study
- path erudite study
- basics of erudite method
- basic technique of erudite writing

**G. LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery of the basics of erudite study	Listening and discussing	LCD Projector
PRESENTATION	explain framework of erudite study	Listening and discussing	LCD Projector
	explain the path of erudite study	Listening and discussing	LCD Projector
	explain basics of erudite method	Listening and discussing	LCD Projector
	explain basic technique of erudite writing	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFFERENCES**

1. Bertens, K. Etika. Jakarta: Gramedia, 1993
  2. International Ethical Guidelines for Biomedical Research involving Human Subjects. CIOMS, Geneva, 1993
  3. International Guidelines for Ethical Review of Epidemiological Studies. CIOMS, Geneva, 1991.
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : VIII

**A INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Comprehending ethic generally

**B. TOPIC**

DEFFINITION of GENERAL ETHIC

**C. SUB TOPIC**

- the mean of ethic
- ethic as value system
- ethic as moral principality union
- ethic as moral philosophy

**D LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery ethic	Listening and discussing	LCD Projector
PRESENTATION	explain meaning of ethic	Listening and discussing	LCD Projector
	explain ethic as moral principality union	Listening and discussing	LCD Projector
	explain the logic	Listening and discussing	LCD Projector
	explain ethic as moral philosophy	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector



**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENCE**

1. Bertens, k. Etika. Jakarta: Gramedia,1993
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : IX

**A INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Comprehending Bioethic

**B. TOPIC**

INTRODUCTORY of BIOETHIC

**C. SUB TOPIC**

- definition of bioethic
- history of bioethic growth
- application of bioethic
- bioethic and law

**D LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery of bioethic	Listening and discussing	LCD Projector
PRESENTATION	explain definition of bioethic	Listening and discussing	LCD Projector
	explain application of bioethic	Listening and discussing	LCD Projector
	explain the relation between bioethic and law	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENCE**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : X

**A INSTRUCTIONAL TARGET**

**General Instructional Target (Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Comprehending Declaration of Geneva & others document of Bioethic

**B. TOPIC**

IMPLEMENTATION of BIOETHIC IN HEALTH SERVICE

**C. SUB TOPIC**

- Declaration of Jeneva
- *KEKI*
- mechanism of *KEKI* execution
- *KODE ETIK GIZI INDONESIA*

**D LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery about implementation bioethic in health service	Listening and discussing	LCD Projector
PRESENTATION	explain declaration of Jenewa	Listening and discussing	LCD Projector
	explain the <i>KEKI</i>	Listening and discussing	LCD Projector
	explain the mechanism of <i>KEKI</i>	Listening and discussing	LCD Projector
	Explain <i>KODE ETIK GIZI Indonesia</i>	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENSI**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Philosophy Science  
**CODE** : KUG110  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Prof. dr. Sulchan, MSc, DA.Nutr, SpGK  
**TIME MEETING** : 3 x 55 Minutes  
**MEETING** : XI

**A INSTRUCTIONAL TARGET**

**General Instructional Target ( Tujuan Instruksional Umum/TIU)**

Comprehending science reality and its applying by responsible, to God and for the sake of environment natural and social .

**Specific Instructional Target (Tujuan Instruksional Khusus/TIU)**

Comprehending Declaration of Geneva & others document of Bioethic

**B. TOPIC**

IMPLEMENTATION of BIOETHIC IN HUMAN RESEARCH

**C. SUB TOPIC**

- Declaration of Jeneva
- *KEKI*
- mechanism of *KEKI* execution
- *KODE ETIK GIZI INDONESIA*

**D LECTURING ACTIVITY**

PHASE of ACTIVITY	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT LECTURING
ANTECEDENT	explain the matery about implementation bioethic in health service	Listening and discussing	LCD Projector
PRESENTATION	explain declaration of Jenewa	Listening and discussing	LCD Projector
	explain the <i>KEKI</i>	Listening and discussing	LCD Projector
	explain the mechanism of <i>KEKI</i>	Listening and discussing	LCD Projector
	Explain <i>KODE ETIK GIZI Indonesia</i>	Listening and discussing	LCD Projector
CONCLUSION	Concluding	Listening and discussing	LCD Projector

**E EVALUATION**

1. Discussing during study
2. Mid semester evaluation
3. End semester evaluation

**F REFERENCE**

1. Suriasumantri, JS. Filsafat Ilmu: Sebuah Pengantar Populer. Jakarta; Pustaka Sinar Harapan, 1999
  2. The, LG. Pengantar Filsafat Ilmu. Yogyakarta: Liberty, 1999
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**OUTLINES PROGRAM EDUCATION**  
***GARIS GARIS BESAR PROGRAM PENGAJARAN***

SUBJECT : Educatin of Civic  
 CODE/SCS : MPK102 / 3 SKS  
 SEMESTER : 1

**DESCRIPTION**

Subject Personal Development is group of study with aim to develop godfearing and religious Indonesia human being to God Which Single The most. Education of Five Principles and Civic of substance its study cover : Base and target education of *PPKN*, *SPPB*, System punish pursuant to *Pancasila* and of *UUD 1945*, Dynamics execution of *UUD 1945*, *Pancasila* as System Philosophy & ethics, Five Principles as life paradigm and ideology, Actualization Five Principles, *HAM*, Rights And Obligations of *WNI*, Democracy, Archipelagos knowledge, Resilience National and Politics Strategy National.

**GENERAL INSTRUCTIONAL TARGET**

After attend the lecture this student can apply *Pancasila* values as philosophy live in to execute responsibility and duty and also societal life rights and obligations, nation and state and also meekly to law and regulation.

No.	Spesific Instructional Target	Topic	Sub topic	Refferensi
1.	Student can analysis target and base of <i>PPKN</i> .	student can analysis target and base of <i>PPKN</i> Base and target of <i>PPKN</i> .	<ul style="list-style-type: none"> <li>- Definition</li> <li>- Base of education (historis, cultural, yuridis and filososfis )</li> <li>- Purpose of <i>PPKN</i></li> <li>- Competence f education</li> </ul>	<ul style="list-style-type: none"> <li>- Kansil, 2002. Pancasila &amp; UUD 1945.</li> <li>-----, 2202. Pendidikan Ke-warganegaraan.</li> <li>-----, 2003. Mo dul Pancasila dan Kewarganegaraan</li> </ul>
2.	Student can execute rights and obligations as citizen.	rights and obligations as	<ul style="list-style-type: none"> <li>- Congeniality of resident &amp; citizen</li> </ul>	<ul style="list-style-type: none"> <li>- B Daroeso,1996. Dasar dan Konsep PMP</li> </ul>



			citizen.	<ul style="list-style-type: none"> <li>- Civic principality</li> <li>- Right and obligation as citizens</li> <li>- Advocating state</li> </ul>	<ul style="list-style-type: none"> <li>- Kaelani, 2000. Pendidikan Pancasila</li> <li>- Subagyo, dkk, 2002 Pendidikan Kewarganegaraan.</li> </ul>
3.	Student understand and execute according to UU no.39 / 1999.	HAM	HAM	<ul style="list-style-type: none"> <li>- Definition and growth of HAM</li> <li>- HAM according to UUD 1945</li> <li>- Peripheral HAM in Indonesia</li> <li>- Implementation of HAM in Indonesia.</li> </ul>	<ul style="list-style-type: none"> <li>- Sugito, 2002. Pendidikan Pancasila</li> <li>- Kansil, 2002. Hukum Kewarganegaraan Indonesia.</li> <li>- Mustafa, K, 2003. Civics Education</li> <li>- Darwan P, 2001. Sosialisasi dan diseminasi HAM</li> </ul>
4.	Student can identify democratic system in life		Demokrasi	<ul style="list-style-type: none"> <li>- Source of democracy in the world</li> <li>- Type of democracy</li> <li>- Democracy of Pancasila</li> <li>- General election in Indonesia.</li> </ul>	<ul style="list-style-type: none"> <li>- Meriam B, 1992. Dasar-dasar Politik</li> <li>- Roger E, 2003. Lebih jauh dengan ideologi Kontemporer.</li> <li>- UU tentang parpol dan pemilu</li> </ul>
5.	Mahasiswa dapat menjelaskan perbedaan konstitusi dan UUD. Student can explain the difference between constitution and UUD		Konstitusi	<ul style="list-style-type: none"> <li>- Definition, nature of, function and characteristic of constitution</li> <li>- Flexibility of UUD</li> <li>- UUD in Indonesia.</li> </ul>	<ul style="list-style-type: none"> <li>- Meriam B, 1992. Dasar-dasar Politik.</li> <li>- Oetoyo Usman, 1992. Pancasila sebagai Ideologi Negara Indonesia.</li> </ul>
6.	Student can describe relation between Proklamasi, Pembukaan and UUD 1945		System of governance in	<ul style="list-style-type: none"> <li>- Basic Law and UUD 1945</li> <li>- Domiciling of main thought</li> </ul>	<ul style="list-style-type: none"> <li>- Dardji D, 1992. Santiaji Pancasila.</li> </ul>

			Indonesia	<ul style="list-style-type: none"> <li>- <i>Pembukaan UUD 1945</i></li> <li>- Relation between <i>Pancasila &amp; UUD 1945</i></li> </ul>	<ul style="list-style-type: none"> <li>- Tolchah, 1983. Teks Resmi UUD 1945.</li> </ul>
7.	Student can illustrate applying <i>pasal-pasal UUD 1945</i> in life		<i>Batang Tubuh UUD 1945</i>	<ul style="list-style-type: none"> <li>- Main key Governence System</li> <li>- High institute of State</li> </ul>	<ul style="list-style-type: none"> <li>- Marsono, 2002. Susunan dalam satu naskah UUD 1945 dengan perubahannya.</li> <li>- Kaelani, 2002. UUD 1945 hasil Amandemen</li> <li>- Mudjanto, 1996. Pancasila buku panduan mahasiswa.</li> </ul>
8.	Student can mention The function of High Institute of State	High	High Institute of State	<ul style="list-style-type: none"> <li>- Type</li> <li>- Duty and function</li> <li>- Dimiciling and its duty</li> </ul>	<ul style="list-style-type: none"> <li>- Kaelani, 2002. Kajian tentang UUD 1945 setelah diamandemen.</li> <li>- Anonim, 2003. Amandemen I, II, III dan IV UUD 1945.</li> </ul>
9.	Student can illustrated cause happened amandemen <i>UUD 1945</i> .		Change of UUD 1945.	<ul style="list-style-type: none"> <li>- <i>Pembukaan UUD 1945</i></li> <li>- Dimiciling regulation of addition and switchover.</li> <li>- Constitution Lawcourt</li> </ul>	<ul style="list-style-type: none"> <li>- Anonim, 2003. Amandemen I, II, III dan IV UUD 1945.</li> <li>- UU no.24/2003. Ttg. Mahkamah Konstitusi.</li> </ul>
10.	Student can explain <i>Pancasila</i> as philosophy	nation	<i>Pancasila Philosophy</i>	<ul style="list-style-type: none"> <li>- Definition of Philosophy</li> <li>- Value, norm, and ethic based on <i>Pancasila</i></li> <li>- <i>Pancasila</i> philosophy and value system</li> </ul>	<ul style="list-style-type: none"> <li>- Dardji D, 1996. Penjabaran Nilai Pancasila dalam sistim hukum di Ind.</li> <li>- Kaelani 2003. Filsafat Pancasila</li> <li>- Sunoto, 2002. Filsafat</li> </ul>

					Pancasila - Sunarjo,2001. Ilmu Pancasila Yuridis Kenegaraan
11.	Student can analyse ideology of <i>Pancasila</i> in life	Ideology of <i>Pancasila</i>	- Growth of open ideology - Ideology of <i>Pancasila</i>	- Roger E,2003. Lebih jauh dengan ideologi Komtemporer. - Dardji D, 2001. Ideologi Pancasila - Oetoyo U, 1992. Pancasila sebagai Ideologi Negara.	
12.	Student can explain concept of archipelagos knowledge ( <i>wawasan nusantara</i> )	Archipelagos knowledge ( <i>wawasan nusantara wasantara</i> )	- Definition - Fundamental of archipelagos formula - <i>Wasantara</i> as national knowledge - Element of archipelagos knowledge and its implementation	- Toto Pandoyo,1994, Wawasan Nusantara & implementasinya - Sutarno.1997. Buku Pegangan Mahasiswa Kuliah Kewiraan - Safrudin. 1992. PPBN lanjutan	
13.	Mahasiswa dapat memberikan gambaran ketahanan nasional Student can describe national defence	National Defence	- Term and fundamental of national defence - Elementary concept and scope of <i>Trigatra</i> and <i>Pancagatra</i> .	- Dirjen Dikti, 1992, Kewiraan untuk Mahasiswa. - Frans EL,1985. Pengantar Pend. Kewiraan. - Bilver S.1996. Dwi Fungsi ABRI	
14.	Student understand concept of national development ( <i>pembangunan nasional</i> )	Politic Strategy National	- Definition, function of <i>Polstranas</i>	- UU no. 20.1982 & Kepres no.4.1994	

			<ul style="list-style-type: none"> <li>- <i>Tata Bina Nasional</i></li> <li>- <i>Outlines of polstranas.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Sobana, 1996. Kewiraan dalam konsepsi dan implementasinya</li> </ul>
15.	Student apply behavior based on life norm.	Ethics life of nation have & state	<ul style="list-style-type: none"> <li>- Determinant <i>Tap.MPR no.VI dan VII/2001</i></li> <li>- Execution method</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Tap MPR</i></li> </ul>
16.	Student get minimum value C.	End semester evaluation	schedule	

## CONTRACT LECTURING.

SUBJECT : Education of Civic  
CODE : MPK 102  
SCS (System Credit Semester) : 3 SCS  
SEMESTER : I  
SUPERVISOR : Drs. Tarsono, M. Kes  
LECTURER : 1. Drs. Tarsono, M.Kes  
SCHEDULE : 1 day/week, 2 hours  
MEETING PLACE : CAMPUS PRODI GIZI

### 1. BENEFIT OF SUBJECT

FORMING PERSONALITY THROUGH CARRYING OUT OF, THINKING, AND CONTINUATION OF VALUE of *PANCASILA* AND HISTORY STRUGGLE OF NATION IN LIFE OF NATION AND STATE.....

### 2. DESCRIPTION

SUBJECT PERSONAL DEVELOPMENT IS GROUP SUBJECT WITH AIM TO DEVELOP HUMAN BEING of INDONESIA GODFEARING AND RELIGIOUS TO THE *TUHAN YANG MAHA ESA*

ITS *PPKN* SUBSTANSI STUDY COVER: BASE AND TARGET of *PPKN*, *SPB*, SYSTEM PUNISH PURSUANT TO *PANCASILA* AND of *UUD 1945*, DYNAMICS EXECUTION OF *UUD 1945*, *PANCASILA* AS SYSTEM PHILOSOPHY AND ETHICS, *PANCASILA* AS IDEOLOGY NATION AND PARADIGM LIFE, AKTUALISASI *PANCASILA*, RIGHTS of *ASAZI* HUMAN BEING, RIGHTS AND OBLIGATIONS CITIZEN of RI, DEMOCRACY KNOWLEDGE of ARCHIPELAGOS, RESILIENCE NATIONAL AND POLITICS STRATEGY NATIONAL.

### 3. INSTRUCTIONAL TARGET

#### GENERAL INSTRUCTIONAL TARGET/ *TIU*

Having completed this subject, student expected can apply *Pancasila* values and history struggle of nation in executing and duty of responsibility and also rights and obligations as Indonesia citizen

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#### SPEISIFIC INSTRUCTIONAL TARGET/ *TIK*

After following this subject student will be able to:

1. analysis fundamental and purpose of *PPKn*
2. execution right and obligation as citizen
3. comprehend and execution human right according to regulation of constitution
4. identificate democratic system in life
5. explain the difference between fundamental constitution and convension
6. describe relation between *Proklamasi*, *Opening*, and *Body of UUD 1945*
7. illustrate application of section of *UUD 1945* in real life
8. mention the function of high institute state

9. explain the happening of amandemen of *UUD 1945*
10. explain *Pancasila* as nation philosophy
11. analyse *Pancasila* ideology in life
12. explain concept of archipelagos knowledge
13. describe about National Defence in Indonesia
14. understand concept of national development after no more *GBHN*
15. apply attitude in life according to *Pancasila and UUD 1945* value and realize of right and obligation as Indonesian citizen

#### 4. LECTURING STRATEGY

To reach the target of this subject, hence compiled is immeasurable of education media and method. Lecturing method the utilized are

- a. discourse and question and answer
- b. duty
- c. discuss
- d. problem solving in illustration

#### 5. REFERENCE

The reading are:

1. Bambang Daroeso, 1986. *Dasar dan Konsep Pendidikan Moral Pancasila*. Aneka Ilmu, Smg.
2. Oetojo Oesman, 1992. *Pancasila sebagai ideologi dalam berbagai bidang kehidupan bermasyarakat, berbangsa dan bernegara*, BP 7, Jakarta.
3. Dardji D, 1994. *Pendidikan Pancasila di PerguruanTinggi*, Laboratorium Pancasila IKIM Malang.
4. -----, 1978. *Santiadji Pancasila, Usaha Nasional*, Surabaya.
5. -----, 1996 *Penjabaran nilai-nilai Pancasila dalam Sistem Hukum di Indonesia*, Raja Gravindo Perkasa, Jakarta.
6. Haji Masagung, 1992. *Sistem Administrasi Negara RI*
7. Meriam B, 1992. *Dasar-dasar Ilmu Politik*, Gramedia Pustaka Utama, Jakarta
8. Moedjanto, dkk, 1996. *Pancasila Buku Panduan Mahasiswa*. Gramedia Pustaka Utama, Jakarta.
9. Marsono, 2002. *Susunan dalam satu naskah UUD 945 dengan perubahan-perubahannya 1999-2002*, Eka Jaya, Jakarta
10. Kaelani, 2002. *Filsafat Pancasila, Pandangan Hidup Bangsa Indonesia, Paradigma*, Yogyakarta.

#### 6. DUTY

1. Hand out about Human rigt in Indonesia
2. Hand out about *Pilkada* as implementation of democracation in Indonesia
3. Section of amandemen *UUD 1945* discussion material
4. Deviding in 10 groups

## 7. ASSESMENT CRITERIA

Assessment will be conducted by instructor by using the following criteria:

Value	Point	Range
A	4	80,00-100,00
AB	3,5	75,00-79,00
B	3	70,00-74,99
BC	2,5	65,00-69,99
C	2	60,00-64,99
CD	1,5	55,00-59,99
D	1	50,00-54,99
E	0	<50,00

In determining final value, will be used the following wight

Absence	...10,00.. %
Mid semester evaluation	...25,00.. %
End semester evaluation + Duty	...50,00.+ 15,00 %

## 8. SCHEDULE

MEETING	TOPIC	LECTURER
1	Fundamental and purpose of <i>PPKN</i>	.....
2	Right and Obligation of Indonesia citizen	.....
3	Human Right	.....
4	Democracation and <i>Pancasila</i> Democracation	.....
5	Constitution, <i>UUD</i> , and convension	.....
6	Governence System of Indonesia	.....
7	The Body of <i>UUD 1945</i>	.....
8	State Institute	.....
9	High State Institute	.....
10	<i>Pancasila</i> Philosophy	.....
11	Ideology and <i>Pancasila</i> Ideology	.....
12	Archipelagos knowledge	.....
13	National Defence	.....
14	<i>POLSTRANAS</i>	.....

15	NATIONAL DEVELOPMENT	.....
16	Society living ethic, nation have, state have	.....



**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 1

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN ANALYSE THE CONCEPT OF *PPKN*
2. TIK :
  - a. STUDENT CAN EXPLAIN DEFINITION AND TARGET OF *PPKN* BY OWN WORDS
  - a. STUDENT CAN EXPLAIN FUNDAMENTAL OF *PPKN*
  - b. STUDENT CAN EXPLAIN THE COMPETENCE OF *PPKN*

**B. TOPIC: FUNDAMENTAL AND TARGET OF *PPKN***

**C. SUB TOPIC :**

1. DEFINITION.
2. FUNDAMENTAL OF EDUCATION (HISTORIS, CULTURAL, YURIDIS & FILOSOFIS).
3. TARGET OF *PPKN*
4. COMPETENCE OF *PPKN*

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Introducing	Reply to absence	Absence
PRESENTATION	2. Showing obligated reading book with example book	Giving attention	OHP
	3. Lecturing transparace	Writing, asking, and discuss	OHP Transparance
	4. question and answer	asking	
CONCLUSION	5. ordered to read and learn	Giving attention and execution	

**E. EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F. REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 2

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT APPLY RIGHT AND OBLIGATION ACCORDING TO ITS DUTY AND FUNCTION
2. TIK :
  - a. STUDENT CAN EXPLAIN THE MEANING OF RESIDENT AND CITIZEN
  - b. STUDENT CAN EXPLAIN PRINCIPALITY CIVIC
  - c. STUDENT CAN ILLUSTRATE RIGHT AND OBLIGATION AS CITIZEN IN EFFORT DEFENCE OF STATE ACCORDING TO HIS/HER PROFESSION

**B. TOPIC: RIGHT AND OBLIGATION OF INDONESIA CITIZEN**

**C. SUB TOPIC :**

1. THE MEANING OF RESIDENT AND CITIZEN
2. PRINCIPALITY CIVIC
3. RIGHT AND OBLIGATION OF INDONESIA CITIZEN
4. STATE ADVOCATING (*BELA NEGARA*)

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of second topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	

**E. EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED.**

**F. REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 3

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN EXECUTE HUMAN RIGHT ACCORDING UU NO. 39/1999 ABOUT HUMAN RIGHT
2. TIK :
  - a. STUDENT CAN EXPLAIN THE GROWTH OF HUMAN RIGHT BY OWN WORDS
  - b. STUDENT UNDERSTAND THE INSTRUMENT OF HUMAN RIGHT IN INDONESIA
  - c. STUDENT CAN ILLUSTRATE THE EXECUTION OF HUMAN RIGHT IN INDONESIA

**B. TOPIC : HUMAN RIGHT**

**C. SUB TOPIC :**

1. The meaning and growth of Human Right
2. Human Right according to UUD 1945
3. The instrument of Human Right in Indonesia
4. Implementation of HAM in Indonesia

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of third topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUTION	4. Order to learn and read the refference book	Giving attention	

**E. EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED.**

**F. REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 4

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN IDENTIFICATE DEMOCRATIC SYSTEM IN INDONESIA
2. TIK :
  - a. STUDENT CAN IDENTIFICATE DEMOCRATIC SYSTEM IN THE WORLD.
  - b. STUDENT CAN EXPLAIN TYPE OF DEMOCRATION
  - c. STUDENT CAN EXPLAIN THE EXECUTION OF GENERAL ELECTION ( *PEMILU* ) IN INDONESIA

**B. TOPIC : DEMOCRATION**

**C. SUB TOPIC :**

1. Source of democracation in the world
2. Type of democracation
3. Democracation of Pancasila
4. *Pemilu & Pilkada* in Indonesia

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of tirth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUTION	4. Order to learn and read the refference book	Giving attention	

**E. EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLER AND EXPOSTULATED.**

**F. REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 5

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN EXPLAIN THE DIFFERENCE BETWEEN CONTITUTION, UUD, AND CONVENSON
2. TIK :
  - a. STUDENT CAN EXPLAIN THE MEANING OF KONSTITUTION, UUD, CONVENSON BY OWN WORDS
  - b. STUDENT CAN EXPLAIN NATURE AND FUNCTION AND CHARACTERISTIC OF CONTITUTION
  - c. STUDENT CAN EXPLAIN FLEXIBILITY OF CONSTITUTION AND UUD

**B. TOPIC : KONSTITUSI DAN UUD**

**C. SUB TOPIC :**

1. THE MEANING
2. NATURE AND FUNCTION AND CHARACTERISTIC OF CONTITUTION
3. FLEXIBILITY OF CONSTITUTION AND UUD
4. UUD IN INDONESIA

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of fourth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	

**E. EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED.**

**F. REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 6

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN DESCRIBE RELATION BETWEEN *PROKLAMASI*, OPENING AND THE BODY OF UUD 1945
2. TIK :
  - a. STUDENT CAN EXPLAIN BASIC LAW OF INDONESIA
  - b. STUDENT CAN EXPLAIN POSITION OF OPENING OF UUD 1945
  - c. MAHASISWA DAPAT MENJELASKAN HUBUNGAN PANCASILA DAN UUD 1945
  - STUDENT CAN EXPLAIN RELATION BETWEEN PANCASILA AND UUD

**B. TOPIC : GOVERNANCE SYSTEM OF INDONESIA**

**C. SUB TOPIC :**

- a. Basic law and UUD 1945
- b. Position of Opening UUD 1945
- c. Main idea of Opening UUD 1945
- d. Relation between Pancasila and UUD 1945

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of fifth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 7

**A. INSTRUCTSIONAL TARGET**

1. TIU : STUDENT CAN EXPLAIN MAIN KEY OF GOVERNENCE SYSTEM IN INDONESIA
2. TIK :
  - a. STUDENT CAN EXPLAIN DEFINITION OF GOVERNENCE SYSTEM IN INDONESIA
  - b. STUDENT CAN EXPLAIN INSTITUTE SYSTEM IN INDONESIA
  - c. STUDENT CAN EXPLAIN FUNTION AND POSITION OF STATE HIGH INSTITUTE

**B. TOPIC : KONSTITUTION & UUD**

**C. SUB TOPIC :**

1. MAIN KEY OF GOVERNENCE SYSTEM IN INDONESIA
2. STATE HIGH INSTITUTE
3. FUNCTION OF STATE HIGH INSTITUTE
4. POSITION OF STATE HIGH INSTITUTE

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of fourth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUTION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 8

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN EXPLAIN PRECISELY STATE HIGH INSTITUTE IN INDONESIA
2. TIK :
  - a. STUDENT CAN MENTION PRECISELY STATE HIGH INSTITUTE
  - b. STUDENT CAN EXPLAIN DUTY OF STATE HIGH INSTITUTE IN INDONESIA
  - c. STUDENT CAN EXPLAIN POSITION OF STATE HIGH INSTITUTE IN INDONESIA.

**E. TOPIC : STATE HIGH INSTITUTE.**

**C. SUB TOPIC :**

1. TYPE OF STATE HIGH INSTITUTE
2. DUTY AND FUNCTION OF EACH HIGH INSTITUTE
3. POSITION OF STATE HIGH INSTITUTE
4. COUNCIL DELEGATION OF AREA (DPD)

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of seventh topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**



**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 9

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN ILLUSTRATED BECAUSE THE HAPPENING OF AMANDEMEN UUD 1945.
2. TIK :
  - a. STUDENT CAN EXPLAIN POSITION OF OPENING OF UUD 1945 IN LAW SYSTEM INDONESIA
  - b. STUDENT EXPLAIN POSITION OF TRANSITORY REGULATION of UUD 1945.
  - c. STUDENT CAN EXPLAIN DUTY AND POSITION OF LAW COURT CONSTITUTION IN SYSTEM OF JUDICATURE IN INDONESIA.

**B. TOPIC : CHANGE OF UUD 1945 ( AMANDEMEN )**

**C. SUB TOPIC :**

1. OPENING UUD 1945
2. POSITION OF TRANSITORY REGULATION of UUD 1945.
3. CONSTITUTION LAW COURT
4. LAW COURT CONSTITUTION IN SYSTEM OF JUDICATURE IN INDONESIA.

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of eight topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL  
UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 10

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN ILLUSTRATED PANCASILA AS PHILOSOPHY NATION SYSTEM
2. TIK :
  - a. STUDENT UNDERSTAND PHILOSOPHY AND PHILOSOPHY SYSTEM
  - b. STUDENT CAN EXPLAIN VALUE, NORM, AND ETHIC BASED ON PANCASILA
  - c. STUDENT CAN EXPLAIN PANCASILA PHILOSOPHY AND VALUE SYSTEM

**B. TOPIC : CONSTITUTION AND UUD**

**C. SUB TOPIC :**

1. DEFINITION
2. PHILOSOPHY SYSTEM AND PHILOSOPHY
3. VALUE, NORM, AND ETHIC IN LIFE
4. PANCASILA PHILOSOPHY AND VALUE SYSTEM

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of ninth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL  
UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

.

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPKI02  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 11

**A INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN ANALYSE IDEOLOGY IN WORLD AND PANCASILA IDEOLOGY
2. TIK :
  - a. STUDENT CAN EXPLAIN GROWTH OF IDEOLOGY IN THE WORLD
  - b. STUDENT CAN EXPLAIN OPEN IDEOLOGY
  - c. STUDENT CAN EXPLAIN PANCASILA IDEOLOGY

**B TOPIC : PANCASILA IDEOLOGY**

**C. SUB TOPIC :**

1. DEFINITION AND GROWTH OF IDEOLOGY
2. OPEN/CLOSED IDEOLOGY
3. PANCASILA IDEOLOGY
4. PANCASILA IDEOLOGY AS NATION PHILOSOPHY

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of tenth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the reference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 12

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN DESCRIBE CONCEPT OF ARCHIPELAGOS KNOWLEDGE
2. TIK :
  - a. STUDENT CAN DESCRIBE DEFINITION OF ARCHIPELAGOS KNOWLEDGE BY OWN WORDS
  - b. STUDENT CAN DESCRIBE FUNDAMENTAL OF ARCHIPELAGOS KNOWLEDGE
  - c. STUDENT CAN EXPLAIN FLEXIBILITY OF CONSTITUTION AND UUD

**B. TOPIC : ARCHIPELAGOS KNOWLEDGE**

**C. SUB TOPIC :**

1. Definition of Archipelagos Knowledges
2. Fundamental of Archipelagos Knowledges
- 3 Archipelagos Knowledges as national knowledge
4. Element of Archipelagos Knowledges
5. Implementation of Archipelagos Knowledges

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of eleventh topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUTION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING.**

.

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 13

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN DESCRIBE ABOUT NATIONAL DEFENCE
2. TIK :
  - a. STUDENT CAN DESCRIBE DEFINITION OF NATIONAL DEFENCE
  - b. STUDENT CAN EXPLAIN THE BASIC CONCEPT OF NATIONAL DEFENCE AND ITS SCOPE
  - c. STUDENT CAN EXPLAIN ASTA GATRA OF NATIONAL DEFENCE

**B. TOPIC : NATIONAL DEFENCE**

**C. SUB TOPIC :**

1. DEFINITION AND BASIC OF NATIONAL DEFENCE
2. BASIC CONCEPT OF NATIONAL DEFENCE
3. SCOPE OF NATIONAL DEFENCE
4. ASTAGATRA NATIONAL DEFENCE

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of twelfth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING**



**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN-SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 14

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT CAN EXPLAIN CONCEPT AND EXECUTION OF INDONESIA DEVELOPMENT
2. TIK :
  - a. STUDENT CAN DESCRIBE EXECUTION OF INDONESIA
  - b. STUDENT CAN EXPLAIN THE MEANING OF *TATA BINA NASIONAL*
  - c. STUDENT CAN EXPLAIN OUTLINES OF NATIONAL POLITIC STRATEGY

**B. TOPIC : NATIONAL POLITIC STRATEGY**

**C. SUB TOPIC :**

1. DEFINITION
2. NATURE AND FUNCTION OF NATIONAL POLITIC STRATEGY
3. *TATA BINA NASIONAL*
4. OUTLINES OF NATIONAL POLITIC STRATEGY

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of thirteenth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the refference book	Giving attention	
ANTECEDENT	1. Review of lecturing last week	asking	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 15

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT HAVING BEHAVIOR BASED ON LIFE NORMS
2. TIK :
  - a. STUDENT CAN DESCRIBE FACTORS WHICH HAVE INFLUENCE IN SOCIETY LIFE
  - b. STUDENT CAN EXPLAIN VISION OF INDONESIA IN 2020
  - c. STUDENT CAN EXPLAIN METHOD EXECUTION OF LIFE OF BEING SOCIETY, NATION AND STATE

**B. TOPIC : ETHICS LIFE OF NATION**

**C. SUB TOPIC :**

1. Factors which have influence in society life
2. Tap MPR no. VI / MPR / 2001
3. Tap MPOR. No. VII/MPR/2001
4. Method execution of life of being society, nation and state

**D. LECTURING ACTIVITY**

ACTIVITY PHASSE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA AND INSTRUMENT
ANTECEDENT	1. Review of lecturing last week	asking	
PRESENTATION	2. Giving lecturing of fourteenth topic	Giving attention, listenig, and writing	OHP, Transpa-ransi
	3. Question and answer	asking	
CONCLUSION	4. Order to learn and read the reference book	Giving attention	

**E EVALUATION : GIVING OPPORTUNITY TO ASK MATTER WHICH STILL UNCLEAR AND EXPOSTULATED**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING**

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : Education of Civic  
**CODE** : MPK102  
**SCS (System Credit Semester)** : 3 SCS  
**LECTURER** : Tarsono  
**TIME MEETING** : 100 Minutes  
**MEETING** : 16

**A. INSTRUCTIONAL TARGET**

1. TIU : STUDENT GRADUATE WITH VALUE A
2. TIK : STUDENT CAN DO QUESTION TEST BETTER AS ACCORDING TO COMAND

**B. TOPIC : ALL OF TOPIC**

**C. SUB TOPIC :**

1. THEORY
2. DUTY
3. ABSENCE

**D. LECTURING ACTIVITY**

<b>ACTIVITY PHASSE</b>	<b>LECTURER ACTIVITY</b>	<b>STUDENT ACTIVITY</b>	<b>MEDIA AND INSTRUMENT</b>
ANTECEDENT	DEVIDING TEST PAPER	WRITE NAME AND TEST NUMBER	
PRESENTATION	PASSING IN TO DO AND TAKE CARE OF TEST	DOING TEST	COPY TEST
CONCLUTION	COLLECTING TEST RESULT	TEST PAPER BROUGHT TO HOME FOR THE STABILIZATION OF RESULT TEST	

**E EVALUATION : TEST RESULT AS SUCCES INDICATOR**

**F REFERENCE : ENCLOSED AT CONTRACT LECTURING**

**OUTLINES PROGRAM EDUCATION  
GARIS BESAR PROGRAM PEMBELAJARAN ( GBPP )**

SUBJECT : ELEMENTARY NUTRITION SCIENCE ( ILMU GIZI DASAR )  
 CODE/SCS : KUG114 / 3 SCS  
 DESCRIPTION : Elementary Nutrition Science represent nutrition studying about elementary nutrient interconnected with health of body covering : history growth of nutrition, congeniality, nature of, function, source of, requirement and sufficiency of nutrient  
 GENERAL INSTRUCTIONAL TARGET (TIIU) : Student will able to combine basic concept of Elementary Nutrition Science to constitutoing and to explain concept in Nutrition Science

NO	SPECIFIC INSTRUCTIONAL TARGET (TIK)	TOPIC	SUB TOPIC	TIME	REFERENCE
1	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain elementary nutrition science minimum 80 % correct	Introducing Nutrition Science	<ul style="list-style-type: none"> <li>• History of Nutrition Science Growth</li> <li>• Definition/terminology, field study, classification of nutrition</li> <li>• Philosophy</li> <li>• Classification and analyse of nutrient</li> </ul>	1 x 150	1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i> , Gramedia Pustaka Utama, Jakarta, 2003 2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i> , Ninth Edition, Wadworth group, 2002 3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i> , 1982
2	After following this lecturing, student of first	digestive, absorption,	<ul style="list-style-type: none"> <li>• Anatomi of digestiv tract</li> <li>• ingestion</li> </ul>	1 x 150	1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i> , Gramedia Pustaka Utama,

	semester Program Study Nutrition Science will be able to explain basic concept of digestive, absorption, and transportation of nutrient minimum 80 % correct.	and transportation	<ul style="list-style-type: none"> <li>• Absorption process on intestinal cells</li> <li>• vasculer system</li> <li>• limphatic system</li> <li>• regulation of ingestin\on and absorption through hormone and nerve system</li> </ul>		<p>Jakarta, 2003</p> <ol style="list-style-type: none"> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i>, 1982</li> </ol>
3	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of metabolism, transformation & interaction of nutrient minimum 80 % correct	Metabolism, transformation & interaction	<ul style="list-style-type: none"> <li>• Resolving various of nutrient (covering : glucose, gliserol, fatty acid, amino acid) becoming energi</li> </ul>	1 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i>, 1982</li> </ol>
4	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about energy minimum 80 % correct	Energy	<ul style="list-style-type: none"> <li>• Metabolism, value &amp; interaction of nutrient producing energy</li> <li>• Function</li> <li>• Basal metabolism</li> <li>• SDA</li> <li>• Physical Actifity</li> <li>• Requirement- sufficiency</li> </ul>	1 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i>, 1982</li> </ol>

			<ul style="list-style-type: none"> <li>• Source</li> </ul>		
5	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about carbohydrat minimum 80 % correct	Carbohydrat	<ul style="list-style-type: none"> <li>• Definition, classification</li> <li>• Nature of physical &amp; chemical</li> <li>• Function</li> <li>• Fermentation, <i>broowming</i> reaction</li> <li>• Fiber</li> <li>• Balance/homeostasis</li> <li>• Requirement- sufficiency</li> <li>• Source</li> </ul>	2 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip - Prinsip Ilmu Gizi</i>, 1982</li> </ol>
6	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about fat minimum 80 % correct	Fat	<ul style="list-style-type: none"> <li>• Definition, classification</li> <li>• Nature of physical &amp; chemical</li> <li>• Fuction</li> <li>• Fatty acid</li> <li>• Essensial fatty acid</li> <li>• Effect of insufficiency – excess</li> <li>• Requirement- sufficiency</li> <li>• Source</li> </ul>	2 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip Prinsip Ilmu Gizi</i>, 1982</li> </ol>

7	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about protein minimum 80 % correct	Protein	<ul style="list-style-type: none"> <li>• Definition, classification</li> <li>• Nature of physical &amp; chemical</li> <li>• Function</li> <li>• Amino acid</li> <li>• Essential amino acid</li> <li>• Quality of protein (NPU,PS,etc)</li> <li>• Effect of supplementation, komplementation</li> <li>• Requirement- sufficiency</li> <li>• Source</li> </ul>	1 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip - Prinsip Ilmu Gizi</i>, 1982</li> </ol>
8	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about vitamin minimum 80 % correct	Vitamin	<ul style="list-style-type: none"> <li>• Definition, classification</li> <li>• Vitamin dissolve in fat</li> <li>• Vitamin dissolve in water</li> <li>• Nature of physical &amp; chemical</li> <li>• Function</li> <li>• Effect of insufficiency – excess</li> <li>• Source</li> </ul>	2 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i>, 1982</li> </ol>
9	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science	Body liquid	<ul style="list-style-type: none"> <li>• Nature of physical &amp; chemical</li> <li>• Function</li> <li>• Balance/homeostasis</li> <li>• Requirement- sufficiency</li> </ul>	1 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> </ol>

	about liquid minimum 80 % correct				3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i> , 1982
10	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about mineral minimum 80 % correct	Mineral	<ul style="list-style-type: none"> <li>• Definition, classification</li> <li>• Macromineral &amp; micromineral</li> <li>• Nature of physical &amp; chemical</li> <li>• Function</li> <li>• Effect of insufficiency – excess</li> <li>• Source</li> </ul>	1 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama, Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i>, 1982</li> </ol>
11	After following this lecturing, student of first semester Program Study Nutrition Science will be able to explain basic concept of nutrition science about mother milk (ASI) minimum 80 % correct	ASI & Analyses of food stuff	<ul style="list-style-type: none"> <li>• Anatomy of glandula mammae</li> <li>• Definition of ASI</li> <li>• Change phase of ASI</li> <li>• Benefit of breastfeeding</li> <li>• Compare of ASI dan cow milk</li> <li>• <i>Bingung puting</i></li> <li>• Position of giving breastfed</li> <li>• Definition of food stuf changer</li> <li>• Benefit of food stuf changer</li> <li>• The use of food stuf changer</li> <li>• arange daily menu based on food stuf changer</li> </ul>	1 x 150	<ol style="list-style-type: none"> <li>1. Sunita Almatsier, <i>Prinsip Ilmu Gizi Dasar</i>, Gramedia Pustaka Utama. Jakarta, 2003</li> <li>2. Whitney Rolfes, Eleanor Noss, <i>Understanding Nutrition</i>, Ninth Edition, Wadworth group, 2002</li> <li>3. Suharjo, Clara M Kusharto, <i>Prinsip – Prinsip Ilmu Gizi</i>, 1982</li> </ol>



## CONTRACT LECTURING.

SUBJECT : ILMU GIZI DASAR  
CODE : KUG114  
SCS : 3 SCS  
SEMESTER : I  
SUPERVISOR : dr. Yekti Wirawanni  
LECTURER : 1. dr. Enny Probosari  
2. dr. Lidya Diah Wulandari  
3. dr. Hesti Murwani  
SCHEDULE : Wednesday 10.40 – 13.10  
MEETING PLACE : Room D

### 1. BENEFIT

Student will be able to comprehend elementary nutrient related to health of body covering : history growth of nutrition, congeniality, nature of, function, source of, requirement and sufficiency of nutrient, so that can unite elementary concept of nutrition science to constitute and formulate concept in next nutrition science

### 2. DESCRIPTION

Elementary Nutrition represent nutrition studying about elementary nutrient related to health of body covering : history growth of nutrition, congeniality, nature of, function, source of, requirement and sufficiency of nutrient

### 3. INSTRUCTIONAL TARGET

#### TIU

Having completed this subject, student expected can unite elementary concept nutrition science to constitute and formulate concept in next nutrition science

#### TIK

After following this study student will be able to :

1. explain basic nutrition science minimum 80 % correct
2. explain basic concept of digestive, absorption, and transportation of nutrient minimum 80 % correct
3. explain basic concept of metabolism, transformation & interaction of nutrient minimum 80 % correct
4. explain basic concept of energy minimum 80 % correct
5. explain basic concept of carbohydrate minimum 80 % correct
6. explain basic concept of lipid minimum 80 % correct
7. explain basic concept of protein minimum 80 % correct
8. explain basic concept of vitamin minimum 80 % correct

9. explain basic concept of body liquid minimum 80 % correct
10. explain basic concept of mineral minimum 80 % correct
11. explain basic concept of *ASI* minimum 80 % correct
12. arrange menu 80% correct

#### 4. LECTURING STRATEGY

To reach the target of this subject, hence compiled is immeasurable of education media and method. Method lecturing used are discourse, question and answer, discussion

Book / fundamental reading in this lecturing are:

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
2. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982

#### 5. DUTY

1. arrange daily menu

#### 6. ASSESMENT CRITERIA

Assesment will be conducted by instructor with following criteria: Penilaian akan dilakukan oleh pengajar dengan menggunakan kriteria sebagai berikut :

Value	Point	Range
A	4	≥ 80
B	3	70 - 79
C	2	60 - 69
D	1	50 - 59
E	0	≤ 49

In determining final value, will be used the following wight:

Absence	minimum 75%
Mid semester evaluation	25 %
End semester evaluation	75 %

## 7. SCHEDULE

No	LECTURE AT	Topic	Way of teaching	Lecturer
1	I	Introduction of Nutrition Science	Discourse & Discuss	dr. Yekti Wirawanni
2	II	Digestion, absorption & transportation	Discourse & Discuss	dr. Hesti Murwani
3	III	Metabolism, transformation & interaction	Discourse & Discuss	dr. Enny Probosari
4	IV	Energy ballance	Discourse & Discuss	dr. Lidya Diah
5	V	carbohydrat	Discourse & Discuss	dr. Lidya Diah
6	VI	carbohydrat	Discourse & Discuss	dr. Lidya Diah
7	VII	Lipid	Discourse & Discuss	dr. Lidya Diah
8		Mid semester	Discourse & Discuss	
9	VIII	Lipid	Discourse & Discuss	dr. Lidya Diah
10	IX	Protein	Discourse & Discuss	dr. Enny Probosari
11	X	Vitamin dissolve in water	Discourse & Discuss	dr. Enny Probosari
12	XI	Vitamin dissolve in lipid	Discourse & Discuss	dr. Enny Probosari
13	XII	Body liquid	Discourse & Discuss	dr. Hesti Murwani
14	XIII	Mineral	Discourse & Discuss	dr. Hesti Murwani
15	XIV	ASI dan Analisis of food stuff	Discourse & Discuss	dr. Yekti Wirawanni
16		Silence Week		
17		End Semester Evaluation		

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **1**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain minimum nutrition bases 80 % correct

A. **TOPIC** : Introduction of Nutrition Science

B. **SUB TOPIC** :

- History of Nutrition Science Growth
- Definition/ terminology, field study, classification of nutrient
- Philosophy
- Classification and analysis of nutrient

C. **LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explaining items coverage Recognition of nutrition science 2. Explain benefit of learning Introduction of Nutrition Science 3. explain competence of <i>TIU</i> and <i>TIK</i>	Giving attention	LCD Projector
Presentatio n	1. Explaining History growth of Definition nutrition terminology, study area, subdividings of nutrition, Philosophy, Classification and analysis of nutrient 2. Giving some examples 3. Giving exercise	Giving attention, asking	White board & LCD Projector
Conclusion	1. Giving question about introduction of nutrition science 2. Clarification to student answer to assess	- Discuss - Answer	White board & LCD Projector

	<p>domination storey level to items which have been given.</p> <p>3. Identifying difficulty which still felt by student.</p>	<p>- Enquire again about unclear items</p>	
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#### D. EVALUATION

Giving formative tes in the form of short question forwarding of items of study

#### E. REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
2. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip –prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **2**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of digestion, absorption, and transportation of nutrient minimum 80% correct

A. **TOPIC** : Digestion, absorption, and transportation

B. **SUB TOPIC** :

- Anatomy of tractus digestivus
- Ingestion
- Absorption process on intestinal cells
- Vascular system
- Lymphatic system
- Regulation of ingestion and absorption through hormone and nerve system

C. **LECTURING ACTIVITY**

<b>Activity Phase</b>	<b>Lecturing Activity</b>	<b>Student Activity</b>	<b>Media and Instrument</b>
Antecedent	1. Explain matter about digestion, absorption, and transportation 2. Explain benefit of learning digestion, absorption, and transportation 3. Explain competence of <i>TIU</i> and <i>TIK</i> relevansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1. Explain Anatomy of digestiv tract, Ingestion, absorption process on intestinal cell, vascular system, lymphatic system, regulation of ingestion and absorption through hormone and nerve system 2. Giving some example	Giving attention, asking	<i>White board &amp; LCD Projector</i>

	3. Giving Exercise		
Conclution	1. Giving questin about digestion, absorbtion & transportation 2. Clarification to student answer to assess domination storey;level to items which have been given. 3. Identifying difficulty which still felt by student..	- Discuss - Answer  - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>

#### D. EVALUATION

Giving formative tes in the form of short question forwarding of items of study

#### F. REFERENCE

4. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
5. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
6. Suharjo. Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **3**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student offirst semester Nutrition Science will be able to explain basic concept of metabolism, transformation, and interaction of nutrient minimum 80% correct

A. **TOPIC** : metabolism, transformation, and interaction

B. **SUB TOPIC** :

Resolving various means of nutrient ( include glucose, gliserol, fatty acid, amino acid, ) become energy

C. **LECTURING ACTIVITY**

<b>Activity Phase</b>	<b>Lecturing Activity</b>	<b>Student Activity</b>	<b>Media and Instrument</b>
Antecedent	1. Explain matery about metabolism, transformation, and interaction 2. Explain benefit of learning metabolism, transformation, and interaction 3. Explain competence of <i>TIU</i> and <i>TIK</i> /relavansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1.Explain Resolving various means of nutrient ( include glucose, gliserol, fatty acid, amino acid, ) become energy 2 Giving some example 3 Giving Exercise	Giving attention, asking	<i>White board &amp; LCD Projector</i>
Conclution	1 Giving questin about digestion, absorbtion & transportation 2 Clarification to student answer to assess domination storey;level to items which have been given.	- Discuss - Answer  - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>



	3 Identifying difficulty which still felt by student..		
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#### D. EVALUATION

Giving formative tes in the form of short question

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
2. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **4**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student offirst semester Nutrition Science will be able to explain basic concept of energy minimum 80% correct

**A TOPIC** : **ENERGY**

**B SUB TOPIC** :

- Metabolism, value, & interaction of nutrient producer energy
- Function
- Basal metabolism
- SDA
- Physical Activity
- Effect of insufficiency – excess
- Requirement- sufficiency
- Source

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explain matery about energy 2. Explain benefit of learning energy 3. Explain competence of <i>TIU</i> and <i>TIK</i> /relavansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1.Explain Metabolism, value, & interaction of nutrient producer energy, Function,Basal metabolism,SDA,Physical Activity, Effect of insufficiency – excess, Requirement-sufficiency, Source 2. Giving example of food producer energy	Giving attention, asking	<i>White board &amp; LCD Projector</i>

	3. Giving exercise		
Conclusion	1 Giving question about energy 2 Clarification to student answer to assess domination storey; level to items which have been given. 3 Identifying difficulty which still felt by student .	- Discuss - Answer - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>

#### D. EVALUATION

Giving formative tests in the form of short question forwarding of items of study

#### E REFERENCE

4. Sunita Almatier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
5. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
6. Suharjo, Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **5 & 6**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of carbohydrate minimum 80% correct

**A** TOPIC : carbohydrate

**B** SUB TOPIC :

- Definition, classification
- Function
- Nature of physical and chemical
- Fiber
- Balance/ homeostasis
- Requirement- sufficiency
- Source

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	<ol style="list-style-type: none"> <li>1. Explain matter about carbohydrate</li> <li>2. Explain benefit of learning carbohydrate</li> <li>3. Explain competence of <i>TIU</i> and <i>TIK</i> relevansi</li> </ol>	Giving attention	<i>LCD Projector</i>
Presentatio n	<ol style="list-style-type: none"> <li>1. Explain Definition, classification, Function, Nature of physical and chemical, Fiber, Balance/homeostasis, Requirement- sufficiency, Source</li> <li>2. Giving example of food producer carbohydrate</li> <li>3. Giving exercise</li> </ol>	Giving attention, asking	<i>White board &amp; LCD Projector</i>

Conclusion	1 Giving question about carbohydrate 2 Clarification to student answer to assess domination storey; level to items which have been given. 3 Identifying difficulty which still felt by student..	- Discuss - Answer  - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>
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#### D. EVALUATION

Giving formative tests in the form of short question forwarding of items of study

#### E REFERENCE

7. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
8. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
9. Suharjo, Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **7 & 8**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student offirst semester Nutrition Science will be able to explain basic concept of lipid minimum 80% correct

**A** TOPIC : lipid

**B** SUB TOPIC :

- Deffinition, classification
- Function
- Nature of phisic and chemic
- Fatty acid
- Essensial fatty acid
- Balance/ homeostasis
- Requirement- sufficiency
- Source

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explain matery about lipid 2. Explain benefit of learning lipid 3. Explain competence of <i>TIU</i> and <i>TIK</i> relavansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1.Explain Deffinition, classification, Function, Nature of phisic and chemic,Fiber,Balance/homeostasis, Requirement- sufficiency,Source 2. Giving example of food producer lipid 3. Giving exercise	Giving attention, asking	<i>White board &amp; LCD Projector</i>

Conclusion	1 Giving question about lipid 2 Clarification to student answer to assess domination storey; level to items which have been given. 3 Identifying difficulty which still felt by student..	- Discuss - Answer - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>
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#### D. EVALUATION

Giving formative tes in the form of short question

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
  2. Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
  3. Suharjo, Clara M Kusharto, *Prinsip –prinsip ilmu gizi*, 1982
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**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **9**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of protein minimum 80% correct

**A** TOPIC : protein

**B** SUB TOPIC :

- Definition, classification
- Function
- Nature of physics and chemistry
- Amino acid
- Essential amino acid
- Quality of protein
- Effect of supplementation, complementation
- Requirement- sufficiency
- Source

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explain matter about protein 2. Explain benefit of learning protein 3. Explain competence of <i>TIU</i> and <i>TIK</i> relevansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1. Explain Definition, classification, Function, Nature of physics and chemistry, classification, quality of protein, effect of supplementation, complementation, Requirement- sufficiency, Source	Giving attention, asking	<i>White board &amp; LCD Projector</i>



	2. Giving example of food producer protein 3. Giving exercise		
Conclusion	1 Giving questin about protein 2 Clarification to student answer to assess domination storey;level to items which have been given. 3 Identifying difficulty which still felt by student..	- Discuss - Answer  - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>

#### D. EVALUATION

Giving formative tes in the form of short question to know efficacy forwarding of items of study

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
- 2 Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **10 & 11**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of vitamin minimum 80% correct

**A** **TOPIC** : vitamin

**B** **SUB TOPIC** :

- Definition, classification
- Function
- Nature of phisic and chemic
- Vitamin dissolve in water
- Vitamin dissolve in lipid
- Effect of supplementation, complementation
- Requirement- sufficiency
- Source

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explain matery about vitamin 2. Explain benefit of learning vitamin 3. Explain competence of <i>TIU</i> and <i>TIK</i>	Giving attention	<i>LCD Projector</i>
	relavansi		
Presentatio n	1.Explain Deffinition, Function, Nature of phisic and chemic,classification, Requirement- sufficiency 2. Giving example of food producer vitamin 3. Explain the difference of vitamin dissolve in water between vitamin dissolve in lipid	Giving attention, asking	<i>White board &amp; LCD Projector</i>

Conclusion	1 Giving question about protein 2 Clarification to student answer to assess domination storey; level to items which have been given. 3 Identifying difficulty which still felt by student..	- Discuss - Answer  - Enquire again about unclear items	<i>White board &amp; LCD Projector</i>
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#### D. EVALUATION

Giving formative test in the form of short question

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
- 2 Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip-prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **12**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of body liquid minimum 80% correct

**A** TOPIC : body liquid

**B** SUB TOPIC :

- Function
- Nature of phisic and chemic
- Ballance/ Homestasis
- Requirement- sufficiency

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	4. Explain matery about body liquid 5. Explain benefit of learning body liquid 6. Explain competence of <i>TIU</i> and <i>TIK</i> /relavansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1.Explain Function, Nature of phisic and chemic,ballance/homeostasis, Requirement-sufficiency	Giving attention, asking	<i>White board &amp; LCD Projector</i>
	2. Giving example 3. Giving exercise		
Conclusion	1 Giving question about body liquid 2 Clarification to student answer to assess domination storey;level to items which have been given.	- Discuss - Answer - Enquire again about	<i>White board &amp; LCD Projector</i>

	3 Identifying difficulty which still felt by student..	unclear items	
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#### D. EVALUATION

Giving formative test in the form of short question

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
- 2 Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip -prinsip ilmu gizi*, 1982

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **13**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of mineral minimum 80% correct

**A** TOPIC : mineral

**B** SUB TOPIC :

- Definition, classification
- Macromideral & micromineral
- Function
- Nature of phisic and chemic
- Requirement- sufficiency
- Source

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explain matery about mineral 2. Explain benefit of learning mineral 3. Explain competence of <i>TIU</i> and <i>TIK</i> /relavansi	Giving attention	<i>LCD Projector</i>
Presentatio n	1.Explain Function, Nature of phisic and chemic,definition, classification, macromineral, micromineral, Requirement-sufficiency 2. Giving example 3. Giving exercise	Giving attention, asking	<i>White board &amp; LCD Projector</i>
Conclusion	1 Giving question about mineral	- Discuss	<i>White board &amp;</i>

	2 Clarification to student answer to assess domination storey;level to items which have been given. 3 Identifying difficulty which still felt by student..	- Answer - Enquire again about unclear items	<i>LCD Projector</i>
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#### D. EVALUATION

Giving formative test in the form of short question

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
  - 2 Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
  3. Suharjo, Clara M Kusharto, *Prinsip prinsip ilmu gizi*, 1982
-

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **ELEMENTARY NUTRITION SCIENCE**  
**CODE** : **MPK102**  
**TIME MEETING** : **1 X 150 Minutes**  
**MEETING** : **14**

**TARGET**

**TIU** : Student will be able to unite elementary concept of nutrition to constitute and formulate concept in next nutrition science

**TIK**: After following this lecturing, student of first semester Nutrition Science will be able to explain basic concept of mother milk (*ASI*) minimum 80% correct

**A** TOPIC : *ASI* AND ANALYSE OF FOOD STUF

**B** SUB TOPIC :

*ASI*

- Anatomy of glandula mammae
- *Deffinition of ASI*
- Change phase of *ASI*
- Benefit of Breast feeding
- *Bingung puting*
- Position of breastfed

**C. LECTURING ACTIVITY**

Activity Phase	Lecturing Activity	Student Activity	Media and Instrument
Antecedent	1. Explain matery about <i>ASI</i> and food stuff analysis 2. Explain benefit of <i>ASI</i> and food stuff analysis	Giving attention	<i>LCD Projector</i>
	3. Explain competence of <i>TIU</i> and <i>TIK/relavansi</i>		
Presentatio n	1.Explain - Anatomy of glandula mammae - <i>Deffinition of ASI</i> - Change phase of <i>ASI</i> - Benefit of Breast feeding	Giving attention, asking	<i>White board &amp; LCD Projector</i>



	<ul style="list-style-type: none"> <li>- <i>Bingung puting</i></li> <li>- Position of breastfed</li> </ul> <p>2. Explain of list of Food Stuff Changer, Benefit of Food Stuff Changer, use of Food Stuff Changer, arrange daily menu based on Food Stuff Changer</p> <p>3. Giving example</p> <p>4. Giving exercise</p>		
Conclusion	<p>1 Giving question about <i>ASI</i></p> <p>2 Clarification to student answer to assess domination storey; level to items which have been given</p> <p>3 Identifying difficulty which still felt by student..</p>	<ul style="list-style-type: none"> <li>- Discuss</li> <li>- Answer</li> </ul> <p>Inquire again about unclear items</p>	<i>White board &amp; LCD Projector</i>

#### D. EVALUATION

Giving formative test in the form of short question to know efficacy of forwarding of items of study

#### E REFERENCE

1. Sunita Almatsier, *Prinsip Ilmu Gizi Dasar*, Gramedia Pustaka Utama, Jakarta, 2003
- 2 Whitney Rolfes, Eleanor Noss, *Understanding Nutrition*, Ninth Edition, Wadworth group, 2002
3. Suharjo, Clara M Kusharto, *Prinsip-prinsip ilmu gizi*, 1982

**OUTLINES PROGRAM EDUCATION  
GARIS-GARIS BESAR PROGRAM PENGAJARAN**

SUBJECT : Anatomy Physiology Nutrition  
 CODE/SCS : KUG222/4  
 SEMESTER : II

**DESCRIPTION**

Elementary knowledge about human being body function and structure as supporter of this profession subject and study dynamics and system of homeostatis human being body, body organs and its accessories gland which playing a part in ingestion, absorption, excretion and metabolism of nutrient including exocrine and endocrine gland. Studied also about organs which play a part in fitness of physical like lung, system and heart circulation of and blood of limph and also muscle tissue.

**GENERAL INSTRUCTIONAL TARGET**

After following this study student can explain the elementary comprehending about structure and function of human body as supporter of this profession subject and can the system and homeostatis dynamic of human body, body organ, and accessories gland which have role in ingestion, absorption, metabolism, & excretion of nutrient including endocrine and exocrine glands. Studied also about organs which play a part in fitness of physical like lung, system and heart circulation of and blood of limph and also muscle tissue.

No.	Specific Instructional Target	Topic	Sub Topic	References
1	Explain basics of anatomy and physiology	basics of anatomy and physiology	<ul style="list-style-type: none"> <li>• basics of anatomy</li> <li>• basics of physiology</li> </ul>	1. Dasar anatomi klinis untuk mahasiswa kedokteran, bag 1-3, Richard snell. EGC. Jakarta
2	Can identificate and mentione musculoskeletal system in human	Muskuloskeletal System	<ul style="list-style-type: none"> <li>• Skeletal system</li> <li>• Muskulus system</li> </ul>	2. Dasar fisiologi kedokteran, Guyton & Hall, EGC, Jakarta
3	Can explain anatomy and physiology of respiratory tract	Tractius respiratorius	Anatomy <ul style="list-style-type: none"> <li>• Respiratory organ</li> <li>• Function of respiratory organ</li> </ul>	3. Dasar fisiologi kedokteran, Ganong, EGC, Jakarta 4. Introduction to The Human Body, Tortora GJ. Wiley International Edition
4	Can explain anatomy and physiology of limph	limph system and	Anatomy	

	system and immunity	immunity	
5	Can explain anatomy and physiology of cardiovascular system	Cardiovascular system	<ul style="list-style-type: none"> <li>• Lymph organ and tissue</li> <li>• Lymph circulation</li> </ul> Anatomy <ul style="list-style-type: none"> <li>• Structure &amp; division of heart cabin</li> <li>• Anatomy of vasculer</li> </ul>
6	Can explain anatomy and physiology of gastrointestinal tract	Tractus gastrointestinal I	Anatomy <ul style="list-style-type: none"> <li>• mouth</li> <li>• pharink &amp; esophagus</li> <li>• gaster</li> <li>• pancreas</li> </ul> Physiology <ul style="list-style-type: none"> <li>• digestion in mouth</li> <li>• digestion dan absorbtion in gaster</li> </ul>
7	Can explain anatomy and physiology of gastrointestinal tract	Tractus gastrointestinal II	Anatomy <ul style="list-style-type: none"> <li>• hepar &amp; vesika vetea</li> <li>• intestin</li> <li>• colon</li> </ul> Physiologi <ul style="list-style-type: none"> <li>• Hepatic function</li> <li>• digestion dan absorption in intestine</li> <li>• digestion dan absorption in colon</li> <li>• nutrition dan metabolism</li> </ul>
8	Can explain anatomy and physiology of urinary tract	Tractus urinarius	Anatomy <ul style="list-style-type: none"> <li>• kidneyl – urethra</li> </ul>

				Physiology <ul style="list-style-type: none"> <li>• filtration of Glomerolus</li> <li>• reabsorption &amp; tubuler secretion</li> </ul>	
9	Can explain anatomy and function of liquid body	Liquid body and homeostasis	Physiology <ul style="list-style-type: none"> <li>• liquid &amp; elektrolit</li> <li>• acid base ballance</li> </ul>		
10	Can explain anatomy and function of aging process	Aging ( Proses Penuaan )	Physiologi cal change on aging : <ul style="list-style-type: none"> <li>- SSP</li> <li>- Coordination of physiological function</li> <li>- Endokrin system</li> <li>- Cardioaskuler system</li> <li>- Kidney system</li> <li>- Respiratory system</li> <li>- Gastrointestinal system</li> <li>- Digestion and absorption of nutrient</li> </ul>		
11	Can explain anatomy and function of development	Anatomy & physiology of development	Anatomy <ul style="list-style-type: none"> <li>• Embrio period</li> <li>• Fetal periode</li> <li>• maternal change during pregnancy</li> </ul> Physiology <ul style="list-style-type: none"> <li>• pregnancy</li> </ul>		

			<ul style="list-style-type: none"> <li>• labouaring</li> <li>• lactacy</li> </ul>	
12	Can explain anatomy and phisiology of endocrine system	Endokrin system	Anatomy – anatomy of glands Physiologi – Hormon <i>action</i>	
13	Can explain anatomy and function of five senses of human	Five senses	Anatomy : - ear - eye - nose - tounge - skin  Function : - ear - eye - nose - tounge - skin	

## CONTRACT LECTURING

SUBJECT : ANATOMY PHYSIOLOGY NUTRITION  
CODE : KUG222  
SCS : 4  
SEMESTER : II  
SUPERVISOR : dr. YEKTI WIRAWANNI  
LECTURER : 1. dr. ETISA ADI MURBAWANI, MSi  
2. dr. MARTHA ARDIARIA  
3. dr. ENNY PROBOSARI  
4. dr. LIDYA DYAH  
SCHEDULE : SELASA, PK. 10.30- 13.50 WIB  
MEETING PLACE : ROOM D

### **BENEFIT OF SUBJECT :**

After following this subject students are expected can explain physiological process that happened in human body and attributed with metabolism process of nutrient in human body

### **DESCRIPTION :**

Elementary knowledge about human being body function and structure as supporter of profession subject and study dynamics and system of homeostatis human being body, body organs and its accessories gland which playing a part in ingestion, absorption, excretion and metabolism of nutrient the including and endocrine of exocrine. Studied also about organs which play a part in fitness of physical like lung, system and heart circulation of and blood of limph and also muscle tissues.

### **GENERAL INSTRUCTIONAL TARGET**

After attend this lecture, student of semester II of program study S1 Nutrition Science expected can explain elementary knowledge about human body function and structure as supporter of subject profession and can explain dynamics and system of homeostatis human body, body organs and its accessories gland which playing a part in ingestion, absorption, excretion and metabolism of nutrient including endocrine of exocrine. Studied also about organs which play a part in fitness of physical like lung, system and heart circulation of and blood of limph and also muscle tissues.

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### **SPECIFIC INSTRUCTIONAL TARGET :**

After following this study student will be able to :

1. Explain basics of Anatomy and Physiology
2. Identificate and mentioned musculoskeletal system in human
3. Explain anatomy & function of tractus respiratorius
4. Explain anatomy & function limphatic system & imunity
5. Explain anatomy & function kardiovaskuler system
6. Explain anatomy & function tractus gastrointestinal
7. Explain anatomy & function traktus gastrointestinal.

8. Explain anatomy & function tractus urinarius
9. Explain anatomy & function body liquid
10. Explain anatomy & function aging in human
11. Explain anatomy & function human growth
12. Explain anatomy & function endocrine system
13. Explain anatomy & function human senses

**STRATEGY**

To reach the target of this study, hence lecturing method used are] :  
discussion and face in class.

**REFERENCES**

The references are :

1. Dasar anatomi klinis untuk mahasiswa kedokteran, bag 1-3, Richard snell. EGC. Jakarta
2. Dasar fisiologi kedokteran, Guyton & Hall, EGC, Jakarta
3. Dasar fisiologi kedokteran, Ganong, EGC. Jakarta

**1. ASSESTMENT CRITERIA**

Assesment will be done by lecturer with following criteria : *Pedoman Acuan Normatif*

Nilai	Point	Range
A	4	.....
B	3	.....
C	2	.....
D	1	.....
E	0	.....

In determining final value, will be used the following wight:

Absences	Minimum 75%
Mid semester evaluation	25 %
End semester evaluation + duty	75 %

**2. SCHEDULE**

MEETING	TOPIC	LECTURER
LECTURE 1	Basics of Anatomy Physiology	dr. Etisa Adi Murbawani, M.Si
LECTURE 2	Muskuloskeletal System	dr. Martha Ardiaria
LECTURE 3	Tractus Respiratorius	dr. Enny Probosari
LECTURE 4	limph dan imunity System	dr. Enny Probosari
LECTURE 5	Kardiovaskuler System	dr. Martha Ardiaria
LECTURE 6	Gastrointestinal I System	dr. Lidya Dyah WS
LECTURE 7	Mid Semester Evaluation	Semua Dosen
LECTURE 8	Gastrointestinal II System	dr. Lidya Dyah WS

LECTURE 9	Urinary System	dr. Martha Ardiana
LECTURE 10	Liquid & Homeostasis	dr. Lidya Dyah WS
LECTURE 11	Aging ( <i>Proses Penuaan</i> )	dr. Etisa Adi Murbawani, M.Si
LECTURE 12	Anatomy & Physiology of Growth	dr. Etisa Adi Murbawani, M.Si
LECTURE 13	Endocrine System	dr. Enny Probosari
LECTURE 14	Senses	dr. Etisa Adi Murbawani, M.Si
LECTURE 15	Nerve System	dr. Enny Probosari
LECTURE 16	Evaluation	Semua dosen



**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Etisa Adi Murbawani, M.Si  
 SCHEDULE : 1X  
 MEETING : 1

**A. INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain the basics of anatomy and phisiology.
  
2. TIK : After following this study, students of second semester are expected can explain and describe the terms in anatomy , structure & function of human organ

**B. TOPIC** : Basics of Anatomy Physiology

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussioni	1. giving attention 2. discussion	LCD & discussion
CONCLUTION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Martha Ardiaria  
 SCHEDULE : 1X  
 MEETING : 2

**A. INSTRUCTIONAL TARGET**

- 1. TIU** : After following this study, students of second semester are expected can explain anatomy and phisiology of musculoscelethal system
  
- 2. TIK** : After following this study, students of second semester are expected can explain and describe musculus system and scelethal system

**B. TOPIC** : musculoscelethal system

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI & NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Enny Probosari  
 SCHEDULE : 1X  
 MEETING : 3

**A. INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain anatomy and physiology of respiratory tract
  
2. TIK : After following this study, students of second semester are expected can explain and describe anatomy of respiratory tract, function of respiratory tract organ

**B. TOPIC** : respiratory tract

**C. LECTURING ACTIVITY** :

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Enny Probosari  
 SCHEDULE : 1X  
 MEETING : 4

**A. INSTRUCTIONAL TARGET**

- 1. TIU** : After following this study, students of second semester are expected can explain physiological process in limph system and imunity
- 2. TIK** : After following this study, students of second semester are expected can explain and describe limphatic tissue and organ, limphatic circulation process

**B. TOPIC** : Limph System & Imunity

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUTION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Martha Ardiaria  
 SCHEDULE : 1X  
 MEETING : 5

**A. INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain anatomy & physiology of cardiovascular system
2. TIK : After following this study, students of second semester are expected can explain and describe structure and devision of heart cabin and vasculer antomy

**B. TOPIC** : cardiovascular system

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Lidya Dyah  
 SCHEDULE : 2X  
 MEETING : 6

**B. INSTRUCTIONAL TARGET**

- 1. TIU** : After following this study, students of second semester are expected can explain anatomy & physiology of gastrointestinal system
- 2. TIK** : After following this study, students of second semester are expected can explain and describe anatomy and physiology mouth, pharink, esophagus, gaster, pancreas, and phisiology process of digestion and absorption in mouthand gster

**B. TOPIC** : gastrointestinal system

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2 preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUTION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Lidya Dyah  
 SCHEDULE : 2X  
 MEETING : 8

**C. INSTRUCTIONAL TARGET**

- 1. TIU** : After following this study, students of second semester are expected can explain anatomy & physiology of gastrointestinal system
- 2. TIK** : After following this study, students of second semester are expected can explain and describe anatomy and physiology hepar, vesica velea, intestine, & colon, and physiological process of digestion and absorption in intestine and colon

**B. TOPIC** : gastrointestinal system II

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUTION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Martha Ardiaria  
 SCHEDULE : 1X  
 MEETING : 9

**D. INSTRUCTIONAL TARGET**

- 1. TIU** : After following this study, students of second semester are expected can explain anatomy & physiology of tractus urinarius
- 2. TIK** : After following this study, students of second semester are expected can explain and describe anatomy and physiology kidney, urethra, filtration process in glomerollus, reabsorption process, and tubular secretion

**B. TOPIC** : urinary system

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion



**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Lidya Dyah  
 SCHEDULE : 1X  
 MEETING : 10

**A. INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain anatomy & phisiology of liquid body and acid base ballance
2. TIK : After following this study, students of second semester are expected can explain and describe physiology of body liquid and electrolite, and acid base ballance

B. TOPIC : liquid and homeostasis

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2.preface	listening	LCD & d.scussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2 self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Etisa Adi Murbawani, M.Si  
 SCHEDULE : 1X  
 MEETING : 11

**A INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain physiological change of aging process
  
2. TIK : After following this study, students of second semester are expected can explain and describe physiological change of aging process of SSP, physiology function coordination, endocrine system, cardiovascular system, urinary system, respiratory system, gastrointestinal system, digestion process, and nutrient absorption

**B. TOPIC** : Aging

**C. LECTURING ACTIVITY** :

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1. Introducing 2. preface	listening	LCD & discussion
PRESENTATION	1. Explain topic 2. discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Etisa Adi Murbawani, M.Si  
 SCHEDULE : 1X  
 MEETING : 12

**A INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain anatomy and physiology of human growth

2. TIK : After following this study, students of second semester are expected can explain and describe anatomy & physiology from embrio period, fetal, pregnancy, birth, & lactacy

**B. TOPIC** : anatomy and physiology of human growth

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1 Introducing 2 preface	listening	LCD & discussion
PRESENTATION	1 Explain topic 2 discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Enny Probosari  
 SCHEDULE : 1X  
 MEETING : 13

**A INSTRUCTIONAL TARGET**

1. TIU : After following this study, students of second semester are expected can explain anatomy and physiology of endocrine system
  
2. TIK : After following this study, students of second semester are expected can explain and describe anatomy & physiology of glands and hormone which in involve in endocrine system

**B. TOPIC** : endocrine system

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1 Introducing 2 preface	listening	LCD & discussion
PRESENTATION	1 Explain topic 2 discussion	1. giving attention 2. discussion	LCD & discussion
CONCLUSION	Formatif test	1. answer question 2. self supporting discussion	LCD & discussion

**UNIT OF EVENT INSTRUCTION**  
**SATUAN ACARA PENGAJARAN/SAP**

SUBJECT : ANATOMY PHYSIOLOGI NUTRITION  
 CODE : KUG222  
 SCS : 4  
 SEMESTER : II  
 LECTURER : 1. dr. Etisa Adi Murbawani, M.Si  
 SCHEDULE : 1X  
 MEETING : 14

**A INSTRUCTIONAL TARGET**

- 1. TIU** : After following this study, students of second semester are expected can explain anatomy and physiology of human senses
- 2. TIK** : After following this study, students of second semester are expected can explain and describe anatomy of ear, eye, nose, tongue, & skin, & physiological process of ear, eye, nose, tongue, & skin

**B. TOPIC** : human senses

**C. LECTURING ACTIVITY :**

ACTIVITY PHASE	LECTURER ACTIVITY	STUDENT ACTIVITY	MEDIA & INSTRUMENT
ANTECEDENT	1 Introducing 2 preface	listening	LCD & discussion
PRESENTATION	1 Explain topic 2 discussion	3. giving attention 4. discussion	LCD & discussion
CONCLUSION	Formatif test	3. answer question 4. self supporting discussion	LCD & discussion

## OUTLINES PROGRAM OF EDUCATION

SUBJECT : FOOD SCIENCE AND TECHNOLOGY  
 CODE/SCS : KUG332P./3  
 SEMESTER : II

### DESCRIPTION

This subjects discuss about food damage and food processing or preservation suitable with nature of foods and defence or increase the quality of foods, and nutrient content.

### TARGET OF GENERAL INSTRUCTIONAL

This subjects target is students can apply the principles of food science and technology to process and picle the food and defence or increase the quality of foods

No.	Target of Specific Instructional	Topic	Sub Topic	Literature
1.	Can explain causes and fisical sign of food damage.	Food damage	1. causes of food damage 2. food damage because of microorganism 3. food damage because of parasits, insects and rodents 4. food damage because of chemical and enzym 5. food damage because of themperature, and humidity 6. food damage because of mechanic and fisical causes 7. signs of food damage 8. effect of food damage to food contents and quality.	1. Penuntun praktikum penilaian organoleptik, Winiati Pudji Rahayu, 1997 2. Pedoman pembuatan roti dan kue. US Wheat Associates, 1983 3. Bahan makanan untuk makanan dan kotaminan, FG Winarno, 1994 4. Teknologi pengawetan pangan, Norman W. Desrosier, 1988

2.	Can analyze quality of foods	Food quality analysis	<ol style="list-style-type: none"> <li>1. definition and purpose of food quality analysis</li> <li>2. How to analyze quality of foods (objective and subjective)</li> <li>3. Possitive and negative of food quality analysis objectively and subjectively.</li> <li>4. principle and technique of food quality analysis objectively and subjectively</li> </ol>	<ol style="list-style-type: none"> <li>5. Teknologi pengemasan pangan, Rizal Syarrief, 1989</li> <li>6. Food Microbiology, Williem C. Frazier, 1988</li> <li>7. Dasar-dasar pengawasan dan standar mutu pangan, Soewarno T. Soekarto, 1990</li> <li>8. Teknologi penyimpanan pangan, Rizal Syarrief, 1993</li> <li>9. Teknologi fermentasi umbi-umbian dan biji-bijian, Suliantari, 1990</li> <li>10. Kimia pangan dan gizi, FG Winarno, 2002</li> <li>11. Menyimpan bahan pangan, Heri Purwanto, 1995</li> <li>12. Petunjuk lab : penyimpanan dingin, Atjeng M. Syarrief, 1992</li> <li>13. Emulsi pangan instant berlesitin, AJ Hartomo, 1993</li> <li>14. Evaluation of certain food additives and contaminants, WHO 2004</li> <li>15. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000</li> <li>16. Mikotoksin pangan, Djarir, 1992</li> <li>17. Ilmu pengetahuan bahan pangan, Tien R. Muchtadi. 1992</li> <li>18. Ilmu Pangan, K A Puadla</li> </ol>
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		Organoleptic test	<ol style="list-style-type: none"> <li>1. Introduce nature of organoleptic</li> <li>2. Preparation sample in organoleptic test</li> <li>3. Laboratory standart in organoleptic test</li> <li>4. Types of phanelis in organoleptic test</li> <li>5. Types of organoleptic test</li> </ol>	
3.	Can explain how to increase contents and quality of food	Increasing nutrient quality of food	<ol style="list-style-type: none"> <li>1. Definition of quality and nutrient food</li> <li>2. Objective of increasing contents and nutrient quality of food</li> <li>3. Type and way to increase contents and nutrient quality of food (supplementation, fortification, enrichment, complementation, etc)</li> </ol>	
4.	Can arrange formula food	Arrange formula food	<ol style="list-style-type: none"> <li>1. definition, purpose, and type of formula food</li> <li>2. standarts of formula foods</li> <li>3. ways to arrange formula food for babies, child under 5, athlets, pregnant woman, elderly, and navy.</li> </ol>	
5.	Can explain function and ways to use food additives	Food additives	<ol style="list-style-type: none"> <li>1. definition and function of food additives</li> <li>2. purpose of food additive addition</li> <li>3. type and way of food additive addition</li> <li>4. doses which recomended by Health Dept, WHO, etc.</li> <li>5. the risk of using food additive</li> </ol>	
6.	Can explain exactly packaging	Food packaging	<ol style="list-style-type: none"> <li>1. definition and purpose of packaging</li> <li>2. type and function of packaging</li> <li>3. consideration factor of election package ingredient</li> <li>4. methods of packaging</li> </ol>	



7.	Can process or preservative food	Processing or preservation food	<ol style="list-style-type: none"> <li>1. definition and purpose of processing</li> <li>2. principles of processing and preservation</li> <li>3. operation unit and factors which contribute to processing and preservation</li> <li>4. influence of processing and preservation to food quality and nutrient content</li> <li>5. methods of food processing and preservation</li> <li>6. postprocess/preservation handling</li> </ol>	
		Food process / preservation by drying	<ol style="list-style-type: none"> <li>1. principles of drying</li> <li>2. drying condition</li> <li>3. factors which contribute to drying process</li> <li>4. various drying process product</li> <li>5. methods of process / preservation food by drying</li> </ol>	
		Food process / preservation by high temperature	<ol style="list-style-type: none"> <li>1. principles of high temperature</li> <li>2. high temperature condition</li> <li>3. factors which contribute to high temperature process</li> <li>4. various high temperature process product</li> <li>5. methods of process / preservation food by high temperature</li> </ol>	

		Food process / preservation by freezing	<ol style="list-style-type: none"> <li>1.principles of freezing</li> <li>2.freezing condition</li> <li>3.factors which contribute to freezing process</li> <li>4.various freezing process product</li> <li>5.methods of process / preservation food by freezing</li> </ol>	
		Food process / preservation by fermentation	<ol style="list-style-type: none"> <li>1.principles of fermentation</li> <li>2.fermentation condition</li> <li>3.factors which contribute to fermentation process</li> <li>4.various fermentation process product</li> <li>5.methods of process / preservation food by fermentation</li> </ol>	
		Food process / preservation by smoked	<ol style="list-style-type: none"> <li>1.principles of smoked</li> <li>2.smoked condition</li> <li>3.factors which contribute to smoked process</li> <li>4.various smoked process product</li> <li>5.methods of process / preservation food by smoked</li> </ol>	
		Food process / preservation by sugaring, salting, and aciding	<ol style="list-style-type: none"> <li>1.principles of sugaring, salting, and aciding</li> <li>2.sugaring, salting, and aciding condition</li> <li>3.factors which contribute to sugaring, salting, and aciding process</li> <li>4.various sugaring, salting, and aciding process product</li> <li>5.methods of process / preservation food by sugaring, salting, and aciding</li> </ol>	

		<p>Food process / preservation by emulsification, instant, and minimally process</p>	<ol style="list-style-type: none"> <li>1.principles of emulsification, instant, and minimally process</li> <li>2.emulsification, instant, and minimally process condition</li> <li>3.factors which contribute to emulsification, instant, and minimally process</li> <li>4.various emulsification, instant, and minimally process product</li> <li>5.methods of process / preservation food by emulsification, instant, and minimally process</li> </ol>	
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## TEACHING CONTRACT

SUBJECT : Food Science and Technology  
CODE : KUG332P  
SCS : 3  
SEMESTER : II  
SUBJECT SUPERVISOR : Arintina Rahayuni, STP., M.Pd.  
LECTURER : 1. Arintina Rahayuni, STP., M.Pd.  
2. Ir. Sri Hetty Susetyorini, M.Kes.  
3. Teguh Budiharjo, STP.  
DAY /TIME : Wednesday/ 13.00-15.30  
LOCATION : 1. Class C  
2. Food Tech. Laboratory Nutrition Dept, Poltekkes  
Smg

### 1. ADVANTAGE OF SUBJECT

Giving knowledge and skill to identify food damage and food processing or preservation suitable with nature of foods and defence or increase the quality of foods, and nutrient content.

### 2. SUBJECT DESCRIPTION

This subjects discuss about food damage and food processing or preservation suitable with nature of foods and defence or increase the quality of foods, and nutrient content.

### 3. INTRUCTIONAL TARGET

#### TARGET OF GENERAL INSTRUCTIONAL

This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods

#### TARGET OF SPECIFIC INSTRUCTIONAL

After follow this subject students can:

1. Can explain causes and fisical sign of food damage.
2. Can analyze quality of foods
3. Can explain how to increase contents and quality of food

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4. Can arrange formula food
5. Can explain function and ways to use food additives
  
6. Can explain exactly packaging
7. Can process or preservative food
8. Can process or preservative food by: fermentation, drying, freezing, high themperature, smoked, sugaring, salting, aciding, emulsification, instant, and minimally process

#### 4. TEACHING STRATEGY

To reach the objective of this subject arranged methods and education tools.. Teaching methods which used are discourse, discussion, and practice on laboratory.

#### 5. REFERENCE

1. Penuntun praktikum penilaian organoleptik, Winiati Pudji Rahayu, 1997
2. Pedoman pembuatan roti dan kue, US Wheat Associates, 1983
3. Bahan makanan untuk makanan dan kotaminan, FG Winarno, 1994
4. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
5. Teknologi pengemasan pangan, Rizal Syarrief, 1989
6. Food Microbiology, Williem C. Frazier, 1988
7. Dasar-dasar pengawasan dan standar mutu pangan, Soewarno T. Soekarto, 1990
8. Teknologi penyimpanan pangan, Rizal Syarrief, 1993
9. Teknologi fermentasi umbi-umbian dan biji-bijian, Suliantari, 1990
10. Kimia pangan dan gizi, FG Winarno, 2002
11. Menyimpan bahan pangan, Heri Purwanto, 1995
12. Petunjuk lab : penyimpanan dingin, Atjeng M. Syarief, 1992
13. Emulsi pangan instant berlesitin, AJ Hartomo, 1993
14. Evaluation of certain food additives and contaminants, WHO 2004
15. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
16. Mikotoksin pangan, Djarir, 1992
17. Ilmu pengetahuan bahan pangan, Tien R. Muchtadi, 1992
18. Ilmu Pangan, KA Buckle, 1988
19. Pengolahan pangan tingkat rumah tangga, Sri Anna, 1992
20. Manisan buah-buahan, N. Eddy S., 1996
21. Gizi dan pengolahan pangan, Rizqie A.
22. Mikrobiologi dalam pengolahan pangan dan keamanan pangan, Imam S.
23. Food Processing Technology, PJ Fellows, 1988
24. Gizi dan pengolahan pangan, Rizqie Auliana, 2001
25. Kerusakan bahan pangan dan cara pencegahannya, FG Winarno, 1983
26. Penilaian orno industri pangan & hasil pertanian, Soewarno T. Soekarto, 1985
27. Sifat fisik pangan, M. Aman Wirakartakusumah, 1992
28. Teknologi fermentasi produk perikanan, Winiati Pudji Rahayu, 1992
29. Teknologi fermentasi sayur dan buah-buahan, Djundjung Daulay, 1992
30. Teknologi fermentasi susu, Ansori R., 1992
31. Teknologi pasca panen dan industri rumah tangga (suatu rangkuman) Tj. Vivian, 1991
32. Teknologi pengolahan pasca panen, AG Karta Saputra, 1994
33. Teknologi pengawetan pangan, Suharta, 1991
34. Teknologi pengolahan pangan nabati (I) dan hewani (II), Made astawan, 1991.
35. Mikrobiologi pengolahan pangan, Srikandi Fardiaz, 1992

#### 6. ASSIGNMENT

Group visit (@ 2 student) to home industry, to see processing food and the quality of food which produced.

## 7. SCORING

Score	Point	Range
A	4	≥ 88
AB	3,5	80-87
B	3	72-79
BC	2,5	64-71
C	2	56-63
CD	1,5	48-55
D	1	40-47
E	0	< 40

To determine final score, will used:

Attendance	: 10%
Mid semester test	: 35%
Final test	: 35%
Assignment	: 20%

## 9. TEACHING SCHEDULE

MEETING	TOPIC	LECTURER
Meeting I	Food damage Food Quality	Arintina R.
Meeting II	Increasing food quality Formula food	Teguh B.
Meeting III	Food additive Packaging	Arintina R.
Meeting IV	Processing and preservation by high temperature	Hetty S.
Meeting V	Processing and preservation by high temperature (continued) Processing and preservation by low temperature (freezing)	Hetty S.
Meeting VI	Fermentation Smoked	Teguh B.
Meeting VII	<b>Mid Test</b>	
Meeting VIII	Sugaring Aciding Salting	Hetty S.
Meeting IX	Emulsification Minimally Process Instant product	Arintina R.
Meeting X	Organoleptic test Bread	Arintina R.
Meeting XI	Tools introduction Jam/Jelly	Arintina R. + Hetty S.
Meeting XII	Practice Saurkraut/pickle/Tape	Teguh B. + Hetty S.
Meeting XIII	Practice	Arintina R. + Teguh

	Soy milk Tofu	B.
Meeting XIV	Practice Ice Cream Instant ginger	Teguh B. + Hetty S.
Meeting XV	Nugget Meat ball	Arintina + Teguh B.
Meeting XVI	<b>Final Test</b>	

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
**TIME** : 150 min  
**MEETING** : I

### A. INTRUCTIONAL TARGET

1. TGI : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods
2. TSI : Can explain causes and fisical sign of food damage.  
Students can analyze food quality

**B. TOPIC** : Food damage  
Food Quality

### C. SUB TOPIC :

1. causes of food damage
2. food damage because of microorganism
3. food damage because of parasits, insects and rodents
4. food damage because of chemical and enzym
5. food damage because of themperature, and humidity
6. food damage because of mechanic and fisical causes
7. signs of food damage
8. effect of food damage to food contents and quality.
9. definition and purpose of food quality analysis
10. How to analyze quality of foods (objective and subjective)
11. Possitive and negative of food quality analysis objectively and subjectively.
12. Principle and technique of food quality analysis objectively and subjectively

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Introduce your self. Introduce and explain about the subject. Negotiate about score and assignment.	Answering salute. Respons to explanation.	White board and spidol
TEACHING	Explain about causes of food damage. Explain about food damage by: a. microorganism, b. parasits, insects & rodents c. chemical and enzyme	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Food damage and quality handbook



	<p>d. temperature, and humidity</p> <p>e. mechanic and fisical causes</p> <p>f. giving examples about signs of food damage</p> <p>g. explain about effect of food damage to food contents and quality.</p> <p>h. explain about definition and purpose of food quality analysis</p> <p>i. explain how to analyze quality of foods (objective and subjective), possitive and negative of food quality analysis objectivelly and subjectivelly.</p> <p>j. explain about principle and techniqe of food quality analysis objectivelly and subjectivelly</p> <p>Menguraikan cara-cara penilaian kualitas makanan (obyektif dan subyektif)</p>		
<b>CLOSING</b>	<p>Resume the topic</p> <p>Close the class (giving salute)</p>	Answering salute	white board and spidol

#### **E. EVALUATION :**

Observed understanding of student to matery of meeting and ask about the topic.

#### **F. REFERENCE :**

1. Food Microbiology, Williem C. Frazier, 1988
2. Dasar-dasar pengawasan dan standar mutu pangan, Soewarno T. Soekarto, 1990
3. Teknologi penyimpanan pangan, Rizal Syarief, 1993
4. Kimia pangan dan gizi, FG Winarno, 2002
5. Menyimpan bahan pangan, Heri Purwanto, 1995
6. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
7. Mikotoksin pangan, Djarir, 1992
8. Ilmu pengetahuan bahan pangan, Tien R.Muchtadi, 1992
9. Ilmu Pangan, KA Buckle, 1988
10. Gizi dan pengolahan pangan, Rizqie-A.
11. Mikrobiologi dalam pengolahan pangan dan keamanan pangan, Imam S.
12. Food Processing Technology, PJ Fellows, 1988
13. Gizi dan pengolahan pangan, Rizqie Auliana, 2001
14. Kerusakan bahan pangan dan cara pencegahannya, FG Winarno, 1983
15. Sifat fisik pangan, M. Aman Wirakartakusumah, 1992
16. Mikrobiologi pengolahan pangan, Srikandi Fardiaz, 1992
17. Penuntun praktikum penilaian organoleptik, Winiati Pudji Rahayu, 1997
18. Penilaian organoleptik untuk industri pangan dan hasil pertanian, Soewarno T. Soekarto, 1985

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
**TIME** : 150 min  
**MEETING** : II

### A. INTRUCTIONAL TARGET

1. TGI : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods
2. TSI : Student can do organoleptic test

### B. TOPIC : Organoleptic test

### C. SUB TOPIC :

1. Introduce nature of organoleptic
2. Preparation sample in organoleptic test
3. Laboratory standart in organoleptic test
4. Types of phanelis in organoleptic test
5. Types of organoleptic test

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Short explanation about meeting I, food damage and quality	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Identificate nature of organoleptic 2. Explain about preparation sample in organoleptic test 3. Explain about laboratory standart in organoleptic test 4. Accomodating used of phanelis according to the type 5. Elect exacly organoleptic test: differential test, preference, scalar, description, application.	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Organoleptic test handbook
CLOSING	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

### E. EVALUATION :

Observed understanding of student to matery of meeting and ask about the topic.

**F. REFERENCE :**

1. Penuntun praktikum penilaian organoleptik, Winiati Pudji Rahayu, 1997
2. Dasar-dasar pengawasan dan standar mutu pangan, Soewarno T. Soekarto, 1990
3. Penilaian organoleptik untuk industri pangan dan hasil pertanian, Soewarno T. Soekarto, 1985

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Teguh Budiharjo, S.Tp.  
**TIME** : 150 min  
**MEETING** : III

### A. INTRUCTIONAL TARGET

1. TGI : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods
2. TSI : Can explain how to increase nutrient contents and quality of food  
Can arrange formula food

**B.TOPIC** : Increasing nutrient quality of food  
 Arrange formula food

### C. SUB TOPIC:

1. Definition of quality and nutrient food
2. Objective of increasing contents and nutrient quality of food
3. Type and way to increase contents and nutrient quality of food (supplementation, fortification, enrichment, complementation, etc)
4. Definition, purpose, and type of formula food
5. Standarts of formula foods
6. Ways to arrange formula food for babies, child under 5, athlets, pregnant woman, elderly, and navy.

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Introduce your self.	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain about definition of quality and nutrient food 2. Explain about the objective of increasing contents and nutrient quality of food 3. Explain about type and way to increase contents and nutrient quality of food (supplementation, fortification, enrichment, complementation, etc) 4. Explain about definition, purpose, and type of formula food 5. Explain about standarts of formula foods 6. Explain about how to arrange formula food for	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Increasing nutrient quality of food and arrange formula food handbook

	babies, child under 5, athletes, pregnant woman, elderly, and navy.		
<b>CLOSING</b>	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

**E. EVALUATION :**

Observed understanding of student to matery of meeting and ask about the topic.

**F. REFERENCE :**

- a. Kimia pangan dan gizi, FG Winarno, 2002
- b. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
- c. Ilmu pengetahuan bahan pangan, Tien R.Muchtadi, 1992
- d. Ilmu Pangan, KA Buckle, 1988
- e. Gizi dan pengolahan pangan, Rizqie A.

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
**TIME** : 150 min  
**MEETING** : IV

### A. INTRUCTIONAL TARGET

- 1. TGI** : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods  
**2. TSI** : Can explain function and ways to use food additives  
 Can explain and elect exactly packaging

**B. TOPIC** : Function and ways to use food additives  
 Food packaging

### C. SUB TOPIC :

1. definition and function of food additives
2. purpose of food additive addition
3. type and way of food additive addition
4. doses which recomended by Health Dept, WHO, etc.
5. the risk of using food additive
6. definition and purpose of packaging
7. type and function of packaging
8. consideration factor of election package ingredient
9. methods of packaging

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Short explanation about meeting II about organoleptic test	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain about definition and function of food additives 2. Explain about purpose of food additive addition 3. Explain about type and way of food additive addition 4. Explain about doses which recomended by Health Dept, WHO, etc. 5. Explain about the risk of using food additive 6. Explain about definition and purpose of packaging	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT food additives and food packaging handbook

	7. Explain about type and function of packaging 8. Explain about consideration factor of election package ingredient 9. Explain about methods of packaging		
CLOSING	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

#### E. EVALUATION :

Observed understanding of student to matery of meeting and ask about the topic.

#### F. REFERENCE :

1. Food Microbiology, Williem C. Frazier, 1988
2. Dasar-dasar pengawasan dan standar mutu pangan, Soewarno T. Soekarto, 1990
3. Teknologi penyimpanan pangan, Rizal Syarief, 1993
4. Kimia pangan dan gizi, FG Winarno, 2002
5. Menyimpan bahan pangan, Heri Purwanto, 1995
6. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
7. Mikotoksin pangan, Djarir, 1992
8. Ilmu pengetahuan bahan pangan, Tien R.Muchtadi, 1992
9. Ilmu Pangan, KA Buckle, 1988
10. Gizi dan pengolahan pangan, Rizqie A.
11. Mikrobiologi dalam pengolahan pangan dan keamanan pangan, Imam S.
12. Food Processing Technology, PJ Fellows, 1988
13. Gizi dan pengolahan pangan, Rizqie Auliana, 2001
14. Kerusakan bahan pangan dan cara pencegahannya, FG Winarno, 1983
15. Sifat fisik pangan, M. Aman Wirakartakusumah, 1992
16. Mikrobiologi pengolahan pangan, Srikandi Fardiaz, 1992
17. Penuntun praktikum penilaian organoleptik, Winiati Pudji Rahayu, 1997
18. Penilaian organoleptik untuk industri pangan dan hasil pertanian, Soewarno T. Soekarto, 1985

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Ir. Sri Hetty Susetyorini, M.Kes.  
**TIME** : 150 min  
**MEETING** : V

### A. INTRUCTIONAL TARGET

- 1. TGI** : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods  
**2. TSI** : Can explain food processing or preservation  
 Can explain food processing or preservation by high temperature

**B. TOPIC** : Food processing or preservation  
 Food processing or preservation by high temperature

### C. SUB TOPIC :

1. definition and purpose of processing
2. principles of processing and preservation
3. operation unit and factors which contribute to processing and preservation
4. influence of processing and preservation to food quality and nutrient content
5. methods of food processing and preservation
6. postprocess/preservation handling
7. principles of high thtemparature
8. high thtemparature condition
9. factors which contribute to high thtemparature process
10. various high thtemparature process product
11. methods of process / preservation food by high thtemparature

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Introduce your self.	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain about definition and purpose of processing 2. Explain about principles of processing and preservation 3. Differentiate operation unit and factors which contribute to processing and preservation	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Food processing or preservation handbook



	<ol style="list-style-type: none"> <li>4. Associate influence of processing and preservation to food quality and nutrient content</li> <li>5. Giving examples about methods of food processing and preservation</li> <li>6. Practice postprocess/preservation handling</li> <li>7. Explain about principles of high temperature</li> <li>8. Explain about high temperature condition</li> <li>9. Identify factors which contribute to high temperature process</li> <li>10. Giving examples various high temperature process product</li> <li>11. Practice methods of process / preservation food by high temperature</li> </ol>		
<b>CLOSING</b>	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

**E. EVALUATION :**

Observed understanding of student to mastery of meeting and ask about the topic.

**F. REFERENCE :**

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Petunjuk lab : penyimpanan dingin, Atjeng M. Syarif, 1992
3. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
4. Ilmu Pangan, KA Buckle, 1988
5. Gizi dan pengolahan pangan, Rizqie A.
6. Food Processing Technology, PJ Fellows, 1988
7. Teknologi pengawetan pangan, Suharta, 1991

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Ir. Sri Hetty Susetyorini, M.Kes.  
**TIME** : 150 min  
**MEETING** : VI

### A. INTRUCTIONAL TARGET

- 1. TGI** : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods  
**2. TSI** : Can explain food processing or preservation by drying  
 Can explain food processing or preservation by freezing

**B. TOPIC** : Food processing or preservation by drying  
 Food processing or preservation by freezing

### C. SUB TOPIC :

1. principles of drying
2. drying condition
3. factors which contribute to drying process
4. various drying process product
5. methods of process / preservation food by drying
6. principles of freezing
7. freezing condition
8. factors which contribute to freezing process
9. various freezing process product
10. methods of process / preservation food by freezing

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Short explanation about meeting V about food processing and preservation by high temperature	Answering salute. Respos to explanation.	White board and spidol
TEACHING	<ol style="list-style-type: none"> <li>1. Explain about principles of drying</li> <li>2. Explain about drying condition</li> <li>3. Identificate factors which contribute to drying process</li> <li>4. Giving examples various drying process product</li> <li>5. Practice methods of process / preservation food by drying</li> <li>6. Explain about principles of</li> </ol>	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Drying and freezing handbook

	freezing 7. Explain about freezing condition 8. Identificate factors which contribute to freezing process 9. Giving examples various freezing process product 10. Practice methods of process / preservation food by freezing		
<b>CLOSING</b>	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

**E. EVALUATION :**

Observed understanding of student to matery of meeting and ask about the topic.

**F. REFERENCE :**

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Petunjuk lab : penyimpanan dingin, Atjeng M. Syarief, 1992
3. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
4. Ilmu Pangan, KA Buckle, 1988
5. Gizi dan pengolahan pangan, Rizqie A.
6. Food Processing Technology, PJ Fellows, 1988
7. Teknologi pengawetan pangan, Suharta, 1991

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Teguh Budiharjo, S.Tp.  
**TIME** : 150 min  
**MEETING** : VIII

### A. INTRUCTIONAL TARGET

- 1. TGI** : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods  
**2. TSI** : Can explain food processing or preservation by fermentation  
 Can explain food processing or preservation by smoked

### B. TOPIC :

- food processing or preservation by fermentation
- food processing or preservation by smoked

### C. SUB TOPIC :

1. principles of fermentation
2. fermentation condition
3. factors which contribute to fermentation process
4. various fermentation process product
5. methods of process / preservation food by fermentation
6. principles of smoked
7. smoked condition
8. factors which contribute to smoked process
9. various smoked process product
10. methods of process / preservation food by smoked

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Short explanation about meeting III about food nutrient quality and formula food	Answering salute. Respons to explanation.	White board and spidol
TEACHING	<ol style="list-style-type: none"> <li>1. Explain about principles of fermentation</li> <li>2. Explain about fermentation condition</li> <li>3. Identificate factors which contribute to fermentation process</li> <li>4. Giving examples various fermentation process product</li> </ol>	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Fermentation and smoked handbook

	<ol style="list-style-type: none"> <li>5. Practice methods of process / preservation food by fermentation</li> <li>6. Explain about principles of smoked</li> <li>7. Explain about smoked condition</li> <li>8. Identificate factors which contribute to , smoked process</li> <li>9. Giving examples various smoked process product</li> <li>10. Practice methods of process / preservation food by smoked</li> </ol>		
CLOSING	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

#### E. EVALUATION :

Observed understanding of student to matery of meeting and ask about the topic.

#### F. REFERENCE :

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Food Microbiology, Williem C. Frazier, 1988
3. Teknologi fermentasi umbi-umbian dan biji-bijian, Suliantari, 1990
4. Ilmu pengetahuan bahan pangan, Tien R.Muchtadi, 1992
5. Ilmu Pangan, KA Buckle, 1988
6. Gizi dan pengolahan pangan, Rizqie A.
7. Mikrobiologi dalam pengolahan pangan dan keamanan pangan, Imam S.
8. Food Processing Technology, PJ Fellows, 1988
9. Teknologi fermentasi produk perikanan, Winiati Pudji Rahayu, 1992
10. Teknologi fermentasi sayur dan buah-buahan, Djundjung Daulay, 1992
11. Teknologi fermentasi susu, Ansori R., 1992
12. Mikrobiologi pengolahan pangan, Srikandi Fardiaz, 1992

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Ir. Sri Hetty Susetyorini, M.Kes.  
**TIME** : 150 min  
**MEETING** : IX

### A. INTRUCTIONAL TARGET

1. TGI : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods
2. TSI : Can explain food processing or preservation by sugaring, salting, aciding

**B. TOPIC** : Food processing or preservation by sugaring, salting, aciding

### C. SUB TOPIC :

1. principles of sugaring, salting, and aciding
2. sugaring, salting, and aciding condition
3. factors which contribute to sugaring, salting, and aciding process
4. various sugaring, salting, and aciding process product
5. methods of process / preservation food by sugaring, salting, and aciding

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Short explanation about meeting VI about drying and freezing	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain about principles of sugaring, salting, and aciding 2. Explain about sugaring, salting, and aciding condition 3. Identificate factors which contribute to sugaring, salting, and aciding process 4. Giving examples various sugaring, salting, and aciding process product 5. Practice methods of process / preservation food by sugaring, salting, and aciding	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT sugaring, salting, and aciding handbook
CLOSING	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol

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#### **E. EVALUATION :**

Observed understanding of student to matery of meeting and ask about the topic.

#### **F. REFERENCE :**

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Food Microbiology, Williem C. Frazier, 1988
3. Teknologi fermentasi umbi-umbian dan biji-bijian, Suliantari, 1990
4. Ilmu pengetahuan bahan pangan, Tien R.Muchtadi, 1992
5. Ilmu Pangan, KA Buckle, 1988
6. Gizi dan pengolahan pangan, Rizqie A.
7. Mikrobiologi dalam pengolahan pangan dan keamanan pangan, Imam S.
8. Food Processing Technology, PJ Fellows, 1988
9. Teknologi fermentasi produk perikanan, Winiati Pudji Rahayu, 1992
10. Teknologi fermentasi sayur dan buah-buahan, Djundjung Daulay, 1992
11. Teknologi fermentasi susu, Ansori R., 1992
12. Mikrobiologi pengolahan pangan, Srikandi Fardiaz, 1992

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
**TIME** : 150 min  
**MEETING** : X

### A. INTRUCTIONAL TARGET

- 1. TGI** : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods  
**2. TSI** : Can explain food process / preservation by emulsification, instant, and minimally process

**B. TOPIC** : Food process / preservation by emulsification, instant, and minimally process

### C. SUB TOPIC :

1. principles of emulsification, instant, and minimally process
2. emulsification, instant, and minimally process condition
3. factors which contribute to emulsification, instant, and minimally process
4. various emulsification, instant, and minimally process product
5. methods of process / preservation food by emulsification, instant, and minimally process

### D. ACTIVITY OF TEACHING: Discourse

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute). Short explanation about meeting III about food additive and packaging	Answering salute. Respons to explanation.	White board and spidol
TEACHING	<ol style="list-style-type: none"> <li>1. Explain about principles of emulsification, instant, and minimally process</li> <li>2. Explain about emulsification, instant, and minimally process condition</li> <li>3. Identificate factors which contribute to emulsification, instant, and minimally process</li> <li>4. Giving examples various emulsification, instant, and minimally process product</li> <li>5. Practice methods of process / preservation food by emulsification, instant, and minimally process</li> </ol>	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT emulsification, instant, and minimally process handbook



CLOSING	Resume the topic Close the class (giving salute)	Answering salute	white board and spidol
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**E. EVALUATION :**

Observed understanding of student to mastery of meeting and ask about the topic.

**F. REFERENCE :**

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Pedoman pembuatan roti dan kue, US Wheat Associates, 1983
3. Food Microbiology, Williem C. Frazier, 1988
4. Emulsi pangan instant berlesitin, AJ Hartomo, 1993
5. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
6. Gizi dan pengolahan pangan, Rizqie A.
7. Food Processing Technology, PJ Fellows, 1988
8. Gizi dan pengolahan pangan, Rizqie Auliana, 2001
9. Teknologi pengawetan pangan, Suharta, 1991

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
 Ir. Sri Hetty Susetyorini, M.Kes.  
**TIME** : 4 hours  
**MEETING** : XI

### A. INTRUCTIONAL TARGET

- 1. TGI** : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods  
**2. TSI** : Students understan how to use instruments of food technology laboratory  
 St.udents can make food product by sugaring (jam/jelly)

**B. TOPIC** : Processing sugaring product (jam, jelly)

### C. SUB TOPIC:

1. Make jam, jelly with various treatment
2. Perceiving jam, jelly product
3. Storage jam, jelly product
4. Perceiving jam, jelly product had been storage

### D. ACTIVITY OF TEACHING: Practice

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute).	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain basic principle, practice prosedure, treatment on jam, jelly product practice. 2. Perceiving jam, jelly product (rendemen, nature of organoleptic) 3. Storage product jam, jelly 4. Perceiving product jam, jelly had been storage to see change	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT jam, jelly handbook
CLOSING	Conclude the result of practice Close the class (giving salute)	Answering salute	white board and spidol

### E. EVALUATION :

Observed understanding of student to matery of meeting and ask about the topic.

#### F. REFERENCE :

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Teknologi penyimpanan pangan, Rizal Syarif, 1993
3. Menyimpan bahan pangan, Heri Purwanto, 1995
4. Pengolahan pangan tingkat rumah tangga, Sri Anna, 1992
5. Manisan buah-buahan, N.Eddy S., 1996
6. Food Processing Technology, PJ Fellows, 1988
7. Teknologi pengawetan pangan, Suharta, 1991
8. Teknologi pengolahan pangan nabati (I) dan hewani (II), Made astawan, 1991.

## TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
 Teguh Budiharjo, STP.  
**TIME** : 4 hours  
**MEETING** : XIII

### A. INTRUCTIONAL TARGET

1. TGI : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods
2. TIK : Students can make processing/preservation product with heating and process combination (soy milk and tofu)

**B. TOPIC** : Processing/preservation product with heating and process combination (soy milk and tofu)

### C. SUB TOPIC :

1. Make soy milk and tofu with various treatment
2. Perceiving soy milk and tofu product
3. Storage soy milk and tofu product
4. Perceiving soy milk and tofu product had been storage

### D. ACTIVITY OF TEACHING: Practice

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute).	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain basic principle, practice prosedure, treatment on soy milk and tofu product practice. 2. Perceiving soy milk and tofu product (rendemen, nature of organoleptic) 3. Storage product soy milk and tofu 4. Perceiving product soy milk and tofu had been storage to see change	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Food damage and quality handbook
CLOSING	Conclute the result of practice Close the class (giving salute)	Answering salute	white board and spidol

### E. EVALUATION :

Observed understanding of student to matery of meeting and ask about the topic.

**F. REFERENCE :**

1. Teknologi pengawetan pangan, Norman W. Desrosier, 1988
2. Ilmu Pangan, KA Buckle, 1988
3. Pengolahan pangan tingkat rumah tangga, Sri Anna, 1992
4. Food Processing Technology, PJ Fellows, 1988
5. Teknologi pasca panen dan industri rumah tangga (suatu rangkuman) Tj. Vivian, 1991
6. Teknologi pengolahan pasca panen, AG Karta Saputra, 1994
7. Teknologi pengolahan pangan nabati (I) dan hewani (II), Made astawan, 1991.

### TEACHING EVENT UNIT

**SUBJECT** : Food Science and Technology  
**CODE** : KUG332P  
**SCS** : 3  
**LECTURER** : Arintina Rahayuni, STP., M.Pd.  
 Teguh Budiharjo, STP.  
**TIME** : 4 hours  
**MEETING** : XIV

**A. INTRUCTIONAL TARGET**

- 1. TGI : This subjects target is students can apply the principles of food science and technology to process and preservate the food and defence or increase the quality of foods
- 2. TSI : Students can make processing emulsion product and process combination (meat ball and nugget)

**B. TOPIC** : Processing emulsion product and process combination (meat ball and nugget)

**C. SUB TOPIC :**

- 1. Make meat ball and nugget with various treatment
- 2. Perceiving meat ball and nugget product
- 3. Storage meat ball and nugget product
- 4. Perceiving meat ball and nugget product had been storage

**D. ACTIVITY OF TEACHING:** Practice

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	Open the class (giving salute).	Answering salute. Respons to explanation.	White board and spidol
TEACHING	1. Explain basic principle, practice prosedure, treatment on meat ball and nugget product practice. 2. Perceiving meat ball and nugget product (rendemen, nature of organoleptic) 3. Storage product meat ball and nugget 4. Perceiving product meat ball and nugget had been storage to see change	Typing Asking Clarifying the explanation	White board and spidol OHP and OHT Food damage and quality handbook
CLOSING	Conclute the result of practice Close the class (giving salute)	Answering salute	white board and spidol

**E. EVALUATION :**

Observed understanding of student to matery of meeting and ask about the topic.

**F. REFERENCE :**

1. Emulsi pangan instant berlesitin, AJ Hartomo, 1993
2. Buku I, II, III dan IV pangan dan gizi, LIPI, 2000
3. Ilmu Pangan, KA Buckle, 1988
4. Pengolahan pangan tingkat rumah tangga, Sri Anna, 1992
5. Food Processing Technology, PJ Fellows, 1988
6. Teknologi pasca panen dan industri rumah tangga (suatu rangkuman) Tj. Vivian, 1991
7. Teknologi pengolahan pasca panen, AG Karta Saputra, 1994
8. Teknologi pengolahan pangan nabati (I) dan hewani (II), Made astawan, 1991.

## OUTLINES PROGRAM OF EDUCATION

SUBJECT : FOOD CHEMISTRY  
 CODE/SCS : KUG224P / 3  
 SEMESTER : II

### DESCRIPTION

This subject is one of the nutrition program with topic food chemistry. Topic of this subject contains macronutrient, micronutrient, additive and metabolite substance which associate with healthy foods and health problems.

### TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can understand about topic that related with food chemistically.

No.	Target of Specific Instructional	Topic	Sub Topic	Literature
1.	Students can explain definition, natures and advantages of water to life and health.	Water	<ul style="list-style-type: none"> <li>- Water chemistry.</li> <li>- Covalent bond and water molecule bond.</li> <li>- Water in food ingredient.</li> <li>- Atipulating water content.</li> </ul>	FG . Winarno ( 1992 ) John.M.de Man (1997)
2.	Students can explain definition, classification, source and advantages of carbohydrate. can explain and write structure, nomenclature and nature of carbohydrate.	Carbohydrate	<ul style="list-style-type: none"> <li>- Classification, nomenclature, isomerisation, and source of carbohydrate.</li> <li>- Simple carbohydrate</li> <li>- Complex carbohydrate</li> <li>- Carbohydrate Identifikation</li> </ul>	Arun Bahl (1979) Edwin, TM (1960) Kroschuitz, JL (1990) West and Todd (1961)
3.	Students can explain definition, classification, nature of amino acid and can write structure, and nomenclature of amino acid.	Amino acid	<ul style="list-style-type: none"> <li>- Deff. of amino acid, structure and nomenclature</li> <li>- Classification of amino acid</li> <li>- Nature of amino acid (physic and chemist).</li> </ul>	Arun Bahl (1979) Edwin, TM (1960) Kroschuitz, JL (1990) West and Todd (1961)
4.	Students can explain definition, classification, nature of protein and the role to organism. Explain and write various protein bond.	Protein	<ul style="list-style-type: none"> <li>- Deff, protein classification</li> <li>- Type of bond in polipeptida chain / protein</li> <li>- Nature of amino acid (physic and chemist)</li> <li>- Role of Protein</li> </ul>	Arun Bahl (1979) Edwin, TM (1960) Kroschuitz, JL (1990) West and Todd (1961)



5.	Students can explain definition, classification, nature of lipid and the role to organism. Explain and write structure and nomenclature and lipid analysis.	Lipid	<ul style="list-style-type: none"> <li>- Substances that form lipid and structure of lipid</li> <li>- Classification and nomenclature of lipid</li> <li>- Nature of amino acid (physic and chemist)</li> <li>- Lipid analysis</li> </ul>	Arun Bahl (1979) Edwin, TM (1960) Kroschuitz, JL (1990) West and Todd (1961)
6.	Students can explain about micronutrient.	Vitamin	<ul style="list-style-type: none"> <li>- Fat soluble vitamins</li> <li>- Water soluble vitamins</li> <li>- Vitamin function as coenzyme</li> </ul>	FG . Winarno (1992 ) John.M.de Man (1997)
7	Students can explain definition, classification, advantages and samples of mineral to organism.	Mineral	<ul style="list-style-type: none"> <li>- Macro mineral</li> <li>- Micro mineral</li> </ul>	FG . Winarno (1992 ) John.M.de Man (1997)
8.	Students can explain definition, classification, advantages, dangerous of contaminant in food Students can write the examples.	Contaminant	<ul style="list-style-type: none"> <li>- Natural contaminant</li> <li>- Contamination during food processing</li> <li>- Contamination because of microorganism</li> <li>- Contamination because of polution</li> </ul>	Belitz, HDet all (2000) Sudarmadji, Slamet, dkk (1989) Anom, (1989)
9.	Students can explain definition, classification, advantages, dangerous of additive in food Students can give the examples.	Additive	<ul style="list-style-type: none"> <li>- Preservatives</li> <li>- Stabilizers</li> <li>- Thickening agents</li> <li>- Flavor enhancers</li> <li>- Beverages</li> <li>- Coloring agents</li> </ul>	Belitz, HDet all (2000) Sudarmadji, Slamet, dkk (1989) Anom, (1989)
10.	Students can explain definition, classification, advantages, dangerous of metabolite substances in food Students can give the examples.	Metabolite substance	<ul style="list-style-type: none"> <li>- Useful metabolite substances</li> <li>- Unuseful metabolite substance</li> </ul>	Belitz, HDet all (2000) Sudarmadji, Slamet, dkk (1989) Anom, (1989)

## TEACHING CONTRACTS

**SUBJECT** : Food Chemistry  
**CODE** : KUG224P  
**SCS** : 3  
**SEMESTER** : II  
**SUBJECT SUPERVISOR** :  
**LECTURER** : Tim teaching  
**DAY / TIME** : Monday  
**LOCATION** : Class D

### 1. ADVANTAGE OF SUBJECT

Food is one of important human basic need. During food production and consumption, many changes event possitive or negative.

Half of that changes because of chemistry reaction in food or because of changes of environment.

Food chemistry is very important so students suggested can learn to contribute another subject.

### 2. SUBJECT DESCRIPTION

In this subject will explained about macro nutrient, micro nutrient , contaminant, additive, and metabolite substance.

### 3. INTRUCTIONAL TARGET

#### TARGET OF GENERAL INSTRUCTIONAL

After finish this subject students can resume association food chemistry othet nutrition science branches.

#### TARGET OF SPECIFIC INSTRUCTIONAL

After finish this subject students can:

1. Explain about macro nutrient
2. Explain about micro nutrient
3. Explain about contaminant
4. Explain about additive
5. Explain about metabolite substance

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### 4. TEACHING STRATEGY

To reach the target of this subject, arranged various method and medium of education. Teaching methods will be used are:

Discourse and discussion.

In few times of meeting gave discourse than test.

This assignment according to theory during class and literature.

### 5. REFERENCE

Literature of this subject are:

1. Arun,Bahl,(1979), **Advanced Organic Chemistry**, first editions, Chand Company, Ltd, New Delhi
2. Anom, (1989), **Pengantar dan Petunjuk anaalisa Pangan**, PAU Paangan dan GIZI Universitas Gadjah mada, Yogyaakaarta

3. Belitz, HD et al, (2004) , **Food Chemistry**, third edition, springer, Tokyo
4. Edwin, TM, (1960), **Elementary Biochemistry**, first editions, Burgess Publishing Company, Ninessota.
5. F.G. Winarno , (1992), **Kimia Pangan dan Gizi** , PT Gramedia Pustaka Utama, Jakarta
6. Kroschuitz, JL and Winokur, M (1990), **Chemistry, General Organic Biological**, Mc Graw Hill Publishing Company, Sydney
7. Sudarmadji, Slaamet; haryono , bambang dan Suhardi, (1989), **Analisa Bahan Makanan dan Pertanian**, edisi I, Liberty dan PAU Universitas Gadjah Mada , Yogyakarta
8. John. M. De Man, **Kimia Makanan**, Edisi Kedua, Penerbit ITB Bandung, 1997.

## 6. ASSIGNMENT

1. Students must do food chemistry practice following pre-test.
2. Students must make practical report (objective, theory and conclusion).

## 7. SCORING

Value	Point	Range
A	4	.....
AB	3,5	.....
B	3	.....
BC	2,5	.....
C	2	.....
CD	1,5	.....
D	1	.....
E	0	.....

To determine final score, will used:

Practice test	..... %
Mid test	..... %
Final test + assignment	..... %

## 8. TEACHING SCHEDULE

MEETING	TOPIC	LECTURER
I	Water	Dra. Murnaah, Apt.
II & III	Protein	Drs. Gunardi, MS., Apt
IV & V	Vitamin	Dr. Aryoko Widodo
VI & VII	Carbohydrate	Dra. Murnah, Apt.
VIII	<b>Mid Test</b>	Tim
IX & X	Lipid	Drs. Gunardi, MS., Apt.
XI	Mineral	Dr. Aryoko Widodo
XII	Contaminant	Drs. Gunardi, MS., Apt.
XIII & XIV	Additives	Drs. Gunardi, MS., Apt.
XV	Metabolite substances	Drs. Gunardi, Ms., Apt.
XVI	<b>Final Test</b>	Tim

## TEACHING EVENT UNIT

**SUBJECT** : Food chemistry  
**CODE** : KUG224 P  
**SCS** : 3  
**LECTURER** : Dra. Murnah, Apt.  
**DAY** : Monday  
**MEETING** : 1

### A. INTRUCTIONAL TARGET

#### TARGET OF GENERAL INSTRUCTIONAL

After finish this subject students can explain definition of water, bonds in water, water in foods, and water content analysis.

#### TARGET OF SPECIFIC INSTRUCTIONAL

Students can write water molecule structure, covalent bond, and water molecule interaction, type of water, solution in water, water content analysis.

**B. TOPIC** : WATER

**C. SUB TOPIC** :

1. Water chemistry.
2. Covalent bond, and water molecule interaction.
3. solution in water.
4. Water in food.
5. Water content analysis.

### D. ACTIVITY OF TEACHING

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	1. Explain definition of water, source and used in food. 2. Explain competention, TGI and TSI	Focus, write, ask	Whiteboard, spidol & OHP
TEACHING	1. Water-chemistry, chemical structure, electrons in water substances. Write water chemical structure. 2. Explain water covalent bond. Explain water molecule interaction. Pictures of bonds. Types of water : water in ice, water became gas, dispersi. 3. Water in food: according to water interaction degree: Type I, II, III, IV.		

	4. Water content analysis: drying, destilation, use refractometer.		
CLOSING	<ol style="list-style-type: none"> <li>1. Ask to students about the topic.</li> <li>2. Explain the answer of students to judge successfully teaching.</li> <li>3. Correct the answer.</li> </ol>	Answer, typing, focus	

E. EVALUATION : Multiple choise test and assay.

F. REFERENCE :

1. F.G. Winarno (1992) Kimia Pangan Dan Gizi, Edisi ke 6
2. PT Gramedia Pustaka Utama , Jakarta.
3. John. M. de Man (1997) ,Principle of food chemistry
4. (alih bahasa Padmawinata,Kosasih ,Kimia Makanan), Edisi ke 2 ITB Bandung, Bandung.

## TEACHING EVENT UNIT

SUBJECT : Kimia Makanan  
CODE : KUG224 P  
SCS : 3  
LECTURER : dr. Aryoko Widodo  
DAY : Monday  
MEETING : IV, V

### A. INSTRUCTIONAL TARGET

#### TARGET OF GENERAL INSTRUCTIONAL

After finish this topic, students know about vitamin in food.

#### TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain definition, classification, types and use of vitamin in food.

B. TOPIC : Vitamin chemistry

C. SUB TOPIC : 1. Fat soluble vitamin  
2. Water soluble vitamin

### D. ACTIVITY OF TEACHING

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	1. Explain definition and advantages of vitamin. 2. Explain competention, TGI and TSI	Focus, write, ask	Whiteboard, spidol & OHP
TEACHING	1. Fat soluble vitamin. Explain structure, chemical type and the role from vitamin A, D, E, K in food. 2. Water soluble vitamin. Explain structure, chemical type and the role from vitamin B, C in food.	Focus, write, ask	Whiteboard, spidol & OHP
CLOSING	1. Ask to students about the topic. 2. Explain the answer of students to judge successfully teaching. 3. Correct the answer.	Focus, typing	

E. EVALUATION : Multiple choice test and assay

F. REFERENCE :

1. F.G. Winarno (1992) **Kimia Pangan Dan Gizi**, Edisi ke 6, PT Gramedia Pustaka Utama , Jakarta.
2. John. M. de Man (1997) ,**Principle of food chemistry**, (alih bahasa Padmawinata,Kosasih ,Kimia Makanan), Edisi ke 2 ITB Bandung, Bandung.

## TEACHING EVENT UNIT

**SUBJECT** : Food chemistry  
**CODE** : KUG224 P  
**SCS** : 3  
**LECTURER** : Dra. Murnah, Apt.  
**DAY** : Monday  
**MEETING** : VII, VIII

### A. INTRUCTIONAL TARGET

#### TARGET OF GENERAL INSTRUCTIONAL

After finish this topic, students can explain about definition, source, and use of carbohydrate.

#### TARGET OF SPECIFIC INSTRUCTIONAL

Students can classify, wirte nomenclature, isomerization, and identificate carbohydrate.

**B. TOPIC** : Carbohydrate

**C. SUB TOPIC** :

1. Classification, nomenclature, isomerisation, and source of carbohydrate.
2. Simple carbohydrate
3. Complex carbohydrate
4. Carbohydrate Identifikation

### D. ACTIVITY OF TEACHING

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
OPENING	1. Explain definition of carbohydrate, the source and use on health science and association with another science. 2. Explain competention, TGI and TSI.	Focus, write, ask	Whiteboard, spidol & OHP
TEACHING	1. Classification, nomenclature, isomerisation, and source of carbohydrate. Explain Classification of carbohydrate following nomenclature and examples. Write examples, enansioner, diastereoisomer, emimer and anomer from monosakaride. Explain source of common carbohydrate from plant and animal.	Focus, write, ask	Whiteboard, spidol & OHP



	<p>2. Simple carbohydrate. Differentiate aldosa and ketosa following examples. Write oksidation reactions, reduction and dehydration from monosacarides. Explain roud form of monosakarida.</p> <p>3. Complex carbohydrate. Differentiate oligosakarida and polisakarida following examples. Write and type nature of sakarosa, maltosa, sellobiosa and laktosa. Differentiate pentosan and heksosa following examples. Explain structure and how to use amylum, glycogen, and sellulosa. Explain amylum hydrolisa.</p> <p>4. Carbohydrate Identifikation. Demonstrate common reaction to carbohydrate. Demonstrate reactions to carbohydrate reduction. Demonstrate Seliwanoff reactions to fructosa and osazon reaction to monosakarida reduction and disakarida reduction.</p>		
CLOSING	<p>1. Ask to students about the topic.</p> <p>2. Explain the answer of students to judge successfully teaching.</p> <p>3. Correct the answer.</p>	Focus, typing	

E. EVALUATION : Multiple choise test and assay

F. REFERENCE :

1. Arun Bahl and B.S Bahl (1979) Advanced Organic Chemistry, First edition. Chand and Company. Ltd, New Delhi.
2. Edwin T. Merzt (1960), Elementrary Biochemistry, Firt edition, Burgess Publisng Company, Minnessota.
3. West & Todd (1961), textbook of Biochemistry, Third edition, The Macmillan Company, New York.

## OUTLINES PROGRAM OF EDUCATION

SUBJECT : Research Methodology  
 CODE/SCS : KUG224P / 3  
 SEMESTER : II

### DESCRIPTION

In this subject learned basics of basic research methodology which applicate on research proposal.

### TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal.

No.	Target of Specific Instructional	Topic	Sub Topic	Literature
1.	Can explain how important nutrition research on nutrition science and technology development	Definition and scope of nutrition research.	1.1. Research definition 1.2. Research objective 1.3. Nutrition research scope	<ul style="list-style-type: none"> <li>- Sastroasmoro S. Dasar-dasar metodologi penelitian klinis, 2002.</li> <li>- Pratiknya AW. Dasar-dasar metodologi penelitian kedokteran dan kesehatan, 1986.</li> <li>- Singarimbun M. Metode penelitian survai, 1989.</li> </ul>
2.	Can explain how to arrange research proposal	How to arrange research proposal	2.1. Research steps 2.2. How to arrange good research proposal	
3.	Can explain problem formulation and research objective	Problem formulation and research objective	3.1. Definition of research problem 3.2. Formulate research problems correctly. 3.3. The important of research objective. 3.4. Formulate research objective	

No.	Target of Specific Instructional	Topic	Sub Topic	Literature
4.	Can explain theory framework, concept framework, variable, and research hypothesis	Theory framework, concept framework, variable, and research hypothesis	4.1. Theory framework 4.2. Concept framework 4.3. Definition of variable 4.4. Definition of hypothesis	
5.	Can explain various research planning	Research planning	5.1. Definition of research planning 5.2. Survey research planning 5.3. Intervensional/eksperimental research planning	
6.	Can explain population and sample	Population and sample	6.1. Definition of population and sample 6.2. Some way to chose sample	
7.	Can explain research instrument and data collecting	Research instrument and data collecting	7.1. Definition of research instrument 7.2. Data collecting technique	
8.	Can explain processing and data analysis	Processing and data analysis	8.1. Data collecting 8.2. Data Analysis	
9.	Can explain how to write research report	How to write research report	9.1. Report Systematic 9.2. How to write research report 9.3. How to write bibliography	- Junadi P. Pengantar analisis data, 1995.
10.	Can arrange research proposal presentation	Research proposal presentation	10.1. Research proposal presentation of each student	

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : 1

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain definition and scope of nutrition research methodology (80% correct).

B. Topic : Definition and scope of nutrition research methodology.

C. Sub topic :

1. Research definition
2. Research objective
3. Nutrition research scope

### D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting 1</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<i>Teaching</i>	<ol style="list-style-type: none"> <li>1. Research definition <ul style="list-style-type: none"> <li>• Ask about definition of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude definition of research nutrition</li> </ul> </li> <li>2. Research objective <ul style="list-style-type: none"> <li>• Ask about objective of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude objective of research nutrition</li> </ul> </li> <li>3. Nutrition research scope <ul style="list-style-type: none"> <li>• Ask about scope of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude scope of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<i>Closing</i>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

1. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
2. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta. 1995.
3. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali. Jakarta, 1986.
4. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
5. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia. Jakarta, 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : II

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain how to arrange research proposal (80% correct).

B. Topic : How to arrange research proposal.

C. Sub topic:

1. Research steps
2. How to arrange good research proposal

D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting II</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<b>Teaching</b>	<ol style="list-style-type: none"> <li>1. Research steps <ul style="list-style-type: none"> <li>• Ask about research steps of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude research steps of research nutrition</li> </ul> </li> <li>2. How to arrange good research proposal <ul style="list-style-type: none"> <li>• Ask about how to arrange good research proposal</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude how to arrange good research proposal</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<b>Closing</b>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

4. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
5. Singarimbun M. Metode penelitian survai, 1989.
6. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
7. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
8. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
9. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : III

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain problem formulation and research objective (80% correct).

B. Topic : Problem formulation and research objective.

C. Sub topic :

1. Definition of research problem.
2. Research problems formulation.
3. Research objective formulation.

### E. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	1. Explain topic of meeting III 2. Explain the advantage of nutrition research methodology 3. Explain competention, TGI and TSI	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>



<i>Teaching</i>	<ol style="list-style-type: none"> <li>1. Definition of research problem. <ul style="list-style-type: none"> <li>• Ask about research problem of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude research problem of research nutrition</li> </ul> </li> <li>2. Research problems formulation. <ul style="list-style-type: none"> <li>• Ask about problems formulation of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude problems formulation of research nutrition</li> </ul> </li> <li>3. Research objective formulation. <ul style="list-style-type: none"> <li>• Ask about objective formulation of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude objective formulation of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<i>Closing</i>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Referensi:

- Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
- Singarimbun M. Metode penelitian survai, 1989.
- Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
- Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
- Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
- Sumartono R.W. Metode penelitian kesehatan. penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta. 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : IV

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain theory framework, consept framework, variable, and research hipotesis (80% correct).

B. Topic : Theory framework, consept framework, variable, and research hipotesis.

C. Sub topic :

1. Theory framework
2. Consept framework
3. Definition of variable
4. Definition of hipotesis

### F. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	1. Explain topic of meeting IV 2. Explain the advantage of nutrition research methodology 3. Explain competention, TGI and TSI	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<b>Teaching</b>	<ol style="list-style-type: none"> <li>1. Theory framework <ul style="list-style-type: none"> <li>• Ask about theory framework of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude theory framework of research nutrition</li> </ul> </li> <li>2. Concept framework <ul style="list-style-type: none"> <li>• Ask about concept framework of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude concept framework of research nutrition</li> </ul> </li> <li>3. Definition of variable <ul style="list-style-type: none"> <li>• Ask about variable definition of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude variable definition of research nutrition</li> </ul> </li> <li>4. Definition of hypothesis <ul style="list-style-type: none"> <li>• Ask about hypothesis definition of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude hypothesis definition of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparency</li> <li>• Whiteboard</li> </ul>
<b>Closing</b>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparency</li> </ul>

E. Reference:

1. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
2. Singarimbun M. Metode penelitian survai, 1989.
3. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
4. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
5. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
6. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : V

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain various research planning (80% correct).

B. Topic : Research planning

C. Sub topic :

1. Definition of research planning
2. Survey research planning
3. Intervensional/eksperimental research planning

### D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting V</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<b>Teaching</b>	<ol style="list-style-type: none"> <li>1. Definition of research planning <ul style="list-style-type: none"> <li>• Ask about definition of research planning of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude definition of research planning of research nutrition</li> </ul> </li> <li>2. Survey research planning <ul style="list-style-type: none"> <li>• Ask about survey research planning of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude survey research planning of research nutrition</li> </ul> </li> <li>3. Intervensional/eksperimental research planning <ul style="list-style-type: none"> <li>• Ask about intervensional/eksperimental research planning of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude intervensional/eksperimental research planning of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<b>Closing</b>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

**E. Reference:**

1. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
2. Singarimbun M. Metode penelitian survai, 1989.
3. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
4. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
5. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
6. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : VI

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain population and sample (80% correct).

B. Topic : Population and sample

C. Sub topic :

1. Definition of population and sample
2. How to chose sample

### D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting VI</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<b>Teaching</b>	<ol style="list-style-type: none"> <li>1. Definition of population and sample <ul style="list-style-type: none"> <li>• Ask about definition of population and sample of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude definition of population and sample of research nutrition</li> </ul> </li> <li>2. How to chose sample <ul style="list-style-type: none"> <li>• Ask about how to chose sample of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude how to chose sample of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<b>Closing</b>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

1. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
2. Singarimbun M. Metode penelitian survai, 1989.
3. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
4. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
5. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
6. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.



## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : VII

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain research instrument and data collecting (80% correct).

B. Topic : Research instrument and data collecting

C. Sub topic :

1. Definition of research instrument
2. Data collecting technique

### D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting VII</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<b>Teaching</b>	<ol style="list-style-type: none"> <li>1. Definition of research instrument             <ol style="list-style-type: none"> <li>1. Ask about definition of research instrument of research nutrition                 <ul style="list-style-type: none"> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude definition of research instrument of research nutrition</li> </ul> </li> </ol> </li> <li>2. Data collecting technique                 <ul style="list-style-type: none"> <li>• Ask about data collecting technique of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude data collecting technique of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<b>Closing</b>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

1. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
2. Singarimbun M. Metode penelitian survai, 1989.
3. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
4. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
5. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
6. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : VIII

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain processing and data analysis (80% correct).

B. Topic : Processing and data analysis

C. Sub topic :

1. Data collecting
2. Data Analysis

### D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting VIII</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<i>Teaching</i>	<ol style="list-style-type: none"> <li>1. Data collecting <ol style="list-style-type: none"> <li>1. Ask about data collecting of research nutrition</li> <li>2. Write student answer on whiteboard</li> <li>3. Give comment and conclude definition of research instrument of research nutrition</li> </ol> </li> <li>2. Data analysis <ul style="list-style-type: none"> <li>• Ask about data analysis of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude data analysis of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<i>Closing</i>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

- a. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
- b. Singarimbun M. Metode penelitian survai, 1989.
- c. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
- d. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
- e. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
- f. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.

## TEACHING EVENT UNIT

SUBJECT : Research Methodology  
 CODE : KUG241  
 SCS : 2  
 TIME : 2 x 50 min  
 MEETING : IX

### A. Instructional Target

#### 1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

#### 2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can explain how to write research report (80% correct).

B. Topic : How to write research report

C. Sub topic :

1. Report Systematic
2. How to write research report
3. How to write bibliography

### D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting IX</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<i>Teaching</i>	<ol style="list-style-type: none"> <li>1. Report Systematic <ul style="list-style-type: none"> <li>• Ask about report Systematic of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude report systematic of research nutrition</li> </ul> </li> <li>2. How to write research report <ul style="list-style-type: none"> <li>• Ask about how to write research report of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude how to write research report of research nutrition</li> </ul> </li> <li>3. How to write bibliography <ul style="list-style-type: none"> <li>• Ask about how to write bibliography of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude how to write bibliography of research nutrition</li> </ul> </li> </ol>	<p>Answer and ask</p> <p>Focus and answering question</p>	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<i>Closing</i>	<p>Close class:</p> <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	<p>Answer question</p> <p>Focus and comment</p>	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

- a. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
- b. Singarimbun M. Metode penelitian survai, 1989.
- c. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
- d. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
- e. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
- f. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.

## TEACHING EVENT UNIT

**SUBJECT** : Research Methodology  
**CODE** : KUG241  
**SCS** : 2  
**TIME** : 2 x 50 min  
**MEETING** : X, XI, XII, XIII, XIV, XV

**A. Instructional Target**

1. TARGET OF GENERAL INSTRUCTIONAL

After follow this subject, students can arrange research proposal without view class note.

2. TARGET OF SPECIFIC INSTRUCTIONAL

Students can arrange research proposal (80% correct).

B. Topic : Arrange research proposal

C. Sub topic :

1. Arrange research proposal
2. Research proposal presentation

D. Activity of Teaching

ACTIVITY	ACTIVITY OF LECTURER	ACTIVITY OF STUDENTS	TOOLS OF TEACHING
<i>Opening</i>	<ol style="list-style-type: none"> <li>1. Explain topic of meeting X, XI, XII, XIII, XIV, XV</li> <li>2. Explain the advantage of nutrition research methodology</li> <li>3. Explain competention, TGI and TSI</li> </ol>	Focus	<ul style="list-style-type: none"> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> <li>• OHP/Transparancy</li> </ul>

<b>Teaching</b>	1. Guiding student about research proposal presentation <ul style="list-style-type: none"> <li>• Ask about research proposal content of research nutrition</li> <li>• Write student answer on whiteboard</li> <li>• Give comment and conclude research proposal content of research nutrition</li> </ul>	Answer and ask Focus and answering question	<ul style="list-style-type: none"> <li>• OHP/transparancy</li> <li>• Whiteboard</li> </ul>
<b>Closing</b>	Close class: <ul style="list-style-type: none"> <li>• Give question to 3-4 students about the topic.</li> <li>• Give clarification to student answer.</li> <li>• Ask to student about unclear lesson.</li> <li>• Give more explanation</li> <li>• Give short explanation about next meeting.</li> </ul>	Answer question Focus and comment	<ul style="list-style-type: none"> <li>• Whiteboard</li> <li>• OHP/transparancy</li> </ul>

E. Reference:

- a. Pratiknya A W. Dasar-dasar metodologi penelitian kedokteran dan kesehatan. C.V Rajawali, Jakarta, 1986.
- b. Singarimbun M. Metode penelitian survai, 1989.
- c. Lemeshow S, et al. Adequacy of sample size in health studies. WHO, 1990.
- d. Sastroasmoro S, Ismael S. Dasar-dasar metodologi penelitian klinis. Binarupa Aksara, Jakarta, 1995.
- e. Junadi, P. Pengantar analisis data. PT. Rineka Cipta, Jakarta, 1995.
- f. Sumartono R.W. Metode penelitian kesehatan, penuntun latihan metode penelitian (terjemahan dari Health research methodology, A guide for training in research methods), PT Gramedia, Jakarta, 1999.



**OUTLINES PROGRAM EDUCATION**  
*GARIS-GARIS BESAR PROGRAM PENGAJARAN*

SUBJECT : Determination of Nutrition Status  
CODE/SCS : KUG334P / 3 SCS  
SEMESTER : III

**DESCRIPTION**

This subject study about basic concept, principal, & way to score nutrition status and its applying on people and group of society

**GENERAL INSTRUCTIONAL TARGET**

After finishing this study students are expected can make scoring nutrition status and its applying on people and group of society

No	Specific Instructional Target	Topic	Sub topic	Time estimation	Reference
1	- Explain reality of nutrition status	Reality of nutrition status & scoring of nutrition status	- definition & nutrition status principal	20	1. Almastier Prinsip Ilmu Gizi. Gramedia, Jakarta 2. Gibson RS. 1990. Principles of Nutritional Assessment 3. Gibson RS. 1990. Principles of
	- Explain reality of nutrition status scoring		- definition & scoring of nutrition status principal	30	
	- Explain influencing factors of nutrition status		- influencing factors of nutrition status method of nutrition status scoring	80	
2	- Explain natural history of nutrition problem	Problem of nutrition & Its relation with-agent, host, & environment	-nature history of nutrition problem	50	
	- Explain agent of nutrition problem		-agent of nutrition problem	60	
3	- Explain host of nutrition problem	Growth as	-host	50	
	- Explain environment of nutrition problem		-environment	40	
	- Explain basic concept of growth			30	
	- Explain type of growth				
	- Explain reality of		- basic concept of	30	

4	<ul style="list-style-type: none"> <li>- antropometri</li> <li>- Explain type of antropometri measure based on growth</li> <li>- Explain benefit &amp; loss of antropometri</li> </ul>	basic antropometri of nutrition	<ul style="list-style-type: none"> <li>- growth</li> <li>- type of growth</li> <li>- definition &amp; principal antropometri</li> <li>- type of antropometri measurement</li> <li>- excess &amp; lack of antropometri</li> </ul>	30 40 50 50	Nutritional Assessment. Laboratory Oxford University New York 4. Howston, CP, Kennedy .1998. Prevention of Micronutrient Deficiencies. National Academy Press Washington
	<ul style="list-style-type: none"> <li>- Explain reality of antropometri parameter</li> <li>- Mention type of antropometri parameter</li> <li>- Explain reality of size of body composition</li> <li>- Explain type of size of body composition measurement</li> </ul>	Parameter antropometri	<ul style="list-style-type: none"> <li>- definition &amp; principal</li> <li>- type of parameter</li> <li>- definition of measurement</li> <li>- type of measurement</li> <li>- method</li> </ul>	20 60 20 20 60	
5	<ul style="list-style-type: none"> <li>- Explain reality of antropometri index</li> <li>- Explain type of antropometri index</li> <li>- Explain antropometri index for children &amp; baby</li> <li>- Explain benefit &amp; loss of antropometri index for children &amp; baby</li> <li>- Explain antropometri index for adult &amp; teenager</li> </ul>	Index of nutrition antropometri	<ul style="list-style-type: none"> <li>-definition</li> <li>-type</li> <li>-Index for children</li> <li>-benefit &amp; loss</li> <li>-Index for adult</li> <li>- benefit &amp; loss</li> </ul>	20 30 40 20 45 20	
6	<ul style="list-style-type: none"> <li>- Explain mistakes in measuring</li> <li>- Explain reality of precision</li> <li>- Explain reality of accuracy</li> <li>- Apply precision &amp; accuracy test</li> </ul>	Quality Control data of antropometri & body composition	<ul style="list-style-type: none"> <li>-mistakes in measurement</li> <li>-Definition &amp; basic principal of precision</li> <li>-definition &amp; basic principal of accuracy</li> <li>-technique</li> </ul>	20 30 30 100	

7	<ul style="list-style-type: none"> <li>- Explain type of antropometri index calculation</li> <li>- Apply technique percentil calculation</li> <li>- Apply technique percent median calculation</li> <li>- Apply technique Z Score calculation</li> </ul>	Technique of antropometri nutrition account	<ul style="list-style-type: none"> <li>-type of antropometri account</li> <li>-technique of percentile</li> <li>-technique of percent median</li> <li>-technique of Z score</li> </ul>	20 60 40 60	
8	<ul style="list-style-type: none"> <li>- Explain reality of standart</li> <li>- Explain reality of reference</li> <li>- Explain type of reference standart</li> <li>- Explain various method of nutrition status classification</li> </ul>	Standart application, reference	<ul style="list-style-type: none"> <li>-definition &amp; standart principal</li> <li>-definition &amp; standart reference</li> <li>-type of standart reference</li> <li>- various method</li> </ul>	20 20 50 90	
9	<ul style="list-style-type: none"> <li>- Mentioned type of food consumption measurement</li> <li>- Explain purpose, target, &amp; principal of each food consumption measurement</li> <li>- Explain sources of mistaken in food consumption measurement</li> <li>- Explain scoring of food consumption measurement</li> </ul>	Measurement of food consumption	<ul style="list-style-type: none"> <li>-type of Measurement of food consumption</li> <li>-purpose, target &amp; princip of each Measurement of food consumption</li> <li>-source of mistake</li> <li>-evaluation of Measurement of food consumption</li> </ul>	30 60 30 60	
10	<ul style="list-style-type: none"> <li>- Explain ecology factors which</li> </ul>	Relation between	- ecology factors which	120	
	<ul style="list-style-type: none"> <li>- influence nutrition status</li> <li>- Explain vital statistic which influence nutrition status</li> </ul>	ecology fctors & vital statistic with nutrition status	<ul style="list-style-type: none"> <li>- influence nutrition status</li> <li>- vital statistic which influence nutrition status</li> </ul>	60	
11	<ul style="list-style-type: none"> <li>- Explain principal of nutrition status scoring clinically</li> <li>- Explain benefit and</li> </ul>	Scoring of nutrition status	<ul style="list-style-type: none"> <li>-principal of Scoring of nutrition status</li> <li>-benefit &amp; loss</li> </ul>	20 30	

	loss of nutrition status scoring clinically - Explain classification of nutrition status scoring clinically - Explain interpretation of nutrition status scoring clinically		-classification -interpretation	60 70	
12	- Explain nutrition status scoring biochemically - Explain benefit and loss of nutrition status scoring biochemically - Explain nutrition status scoring biochemically based on type of nutrient	Scoring of nutrition status biochemically	-principal -benefit & loss - Scoring of nutrition status biochemically on Various nutrition	20 40 120	
13	- Explain benefit and loss of nutrition status scoring biophysically - Explain nutrition status scoring biophysically - Explain type of nutrition status scoring biophysically - Explain nutrition status scoring method	Scoring of nutrition status biophysically	-principal -benefit & loss - Scoring of nutrition status biophysically Various nutrition -method	20 40 40 80	
14	biophysically - Mention type of nutrition status scoring in hospital - Mention method of nutrition status scoring in hospital - Mention reality of method of nutrition status scoring in	Scoring of nutrition status in hospital	- type of Scoring of nutrition status in hospital - method - reality - according to used	30 80 30 40	

	hospital - Mention according to used of nutrition status scoring in hospital				
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## CONTRACT LECTURING.

SUBJECT : Determination of Nutrition Status  
CODE : KUG334P  
SCS : 3 SCS  
SEMESTER : III  
SUPERVISOR : Ali Rosidi, SKM, M Si  
SCHEDULE : Wednesday 14.00-17.00  
MEETING PLACE : Room F

### 1. BENEFIT

Quality of human resource is not quit of its health. Healthy Body human being need various type of nutrient to execute its everyday activity. Health coming from pattern food consumptio or life style in consuming everyday food, to look in the form of situation of status or nutrition.

Because its problem, this study require to be submitted to utilize to assist student obtain the understanding of comprehensive and also can apply it in scoring status of nutrition to society group and also individual.

### 2. DESCRIPTION

This study including matery of basic concept, principal & way to scoring nutrition status and its applying to society & individu. Each topic will be submitted by relate it or giving examples of problem that happened in society.

### 3. INSTRUCTIONAL TARGET

#### TIU

Having completed this subject, student expected can unite elementary concept nutrition science to constitute and formulate concept in next nutrition science

#### TIK

After following this study student will be able to :

1. explain basic concept nutrition status scoring
2. apply principal of nutrition status scoring on individu & society

### 4. LECTURING STRATEGY

The method of this study are discoursing, strategy of active learning & strategy of collaborative cooperative study

### 5 Book / fundamental reading in this lecturing are:

1. Almastier. Prinsip Dasar Ilmu Gizi. Gramedia, Jakarta
2. Gibson RS. 1990. Principles of Nutritional Assesment. Oxford University New york

3. Gibson RS. 1990. Principles of Nutritional Assessment. Laboratory Oxford University New York  
 4. Howston, CP, Kennedy. 1998. Prevention of Micronutrient Deficiencies. National Academy Press. Washington

**6 DUTY**

There are some certain topic which oblige student make duty, that is in the form of handing out, made to team each 3 student. Each student given time 3 day of to finish the duty.

**7 ASSESMENT CRITERIA**

Assesment is conducted according to regulation from Program Study.

- Absence : 5%
- Group duty : 15%
- Individual duty : 20%
- Activity in class : 10%
- UTS : 20%
- UAS : 30%

**8 SCHEDULE**

Meeting at	Topic	Reference
1	Reality of nutrition status & scoring of nutrition status	Same with point 5
2	Nutrition problem & it relation between agent, host, & environment	
3	Growth as basic of nutrition antropometri	
4	Parameter antropometri & measurement of body composition	
5	Index of Nutrition antropometri	
6	Quality control of data antropometri 7 body composition	
7	Technique accounting of antropometri nutrition index	
8	Standart Application, Reference, & Nutrition Status classification	
9	Measurement of food consumption	
10	Relation between ecology factor & vital statistic with nutrition status	
11	Nutrition status scoring clinically	
12	Nutrition status scoring biochemically	
13	Nutrition status scoring biophysically	
14	Nutrition status scoring in hospital	

**UNIT of EVENT INSTRUCTION**  
(SATUAN ACARA PENGAJARAN/SAP)

**SUBJECT** : **Determination of Nutrition Status**  
**CODE** : **KUD334P**  
**SCS (System Credit Semester)** : **3 SCS**  
**TIME MEETING** : **3 X 60 Minutes**  
**MEETING** : **1,2**

**A. INSTRUCTIONAL TARGET**

1. TIU : student can execute nutrition status scoring to individual or society
2. TIK ( meeting 1 )
  - a. After following this study student can explain reality of nutrition status
  - b. After following this study student can explain reality of nutrition status scoring
  - c. After following this study student can explain factors which influence nutrition status
  - d. After following this study student can explain method of of nutrition status scoring
  - e. After following this study student can explain nature history of nutrition status
  - f. After following this study student can explain agent of nutrition status problem
  - g. After following this study student can explain host of nutrition status problem
  - h. After following this study student can explain environment of nutrition status problem

**TIK ( meeting 2 )**

- a. After following this study student can explain basic concept of growth
- b. After following this study student can explain type of growth
- c. ~~After following this study student can explain reality of antropometri~~
- d. After following this study student can explain type of measurement
- e. After following this study student can explain benefit & loss of antropometri measurement
- f. After following this study student can explain reality of antropometri parameter
- g. After following this study student can explain type of antropometri parameter



- h. After following this study student can explain measurement method

**B TOPIC**

- 1 Reality of nutrition status scoring & relation between nutrition problem with host, agent, & environment
- 2 Growth, antropometri, & Measurement of Body Composition

**C SUB TOPIC**

- 1.1 Definition & Principal of Nutrition Status Scoring
- 1.2 Factors which influence Nutrition Status
- 1.3 Method of Nutrition Status Scoring
- 1.4 Nature history of nutrition problem
- 1.5 Agent of nutrition problem
- 1.6 Host of nutrition problem
- 1.7 Environment of nutrition problem
  
- 2.1 Basic concept of growth
- 2.2 Type of growth
- 2.3 Definition & antropometri principal
- 2.4 Type of antropometri measurement
- 2.5 Benefit & loss of *PSG* antropometricaly
- 2.6 Definition & antropometri principal & measurement of body composition
- 2.7 Type of antropometri parameter & measurement of body composition
- 2.8 Measurement Method of each parameter & measurement of body composition

**D LECTURING ACTIVITY**

Phase	Lecturer activity	Student Activity	Media & Instrument
Antecedent	1 explain matery 1/2 2 explain general competention 1/2 3 generating enthusiasm	Giving attention	LCD White board
Presentation	4 explain matery 1.1/1.2 a asking about matery b writing of student c answering d explain matery 5 explain matery 1.2/2.2 a asking about matery b writing of student c answering d explain matery 6 explain matery 1.3/2.3 a asking about matery	Giving attention Giving oppinion	LCD White board

	b writing of student c answering d explain matery 7 explain matery 1.4/2.4 a asking about matery b writing of student c answering d explain matery 8 explain matery 1.5/2.5 a asking about matery b writing of student c answering d explain matery 9 explain matery 1.6/2.6 a asking about matery b writing of student c answering d explain matery 10 explain matery 1.7/2.7 a asking about matery b writing of student c answering d explain matery 11 explain matery 1.7/2.7 a asking about matery b writing of student c answering d explain matery		
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## E EVALUATION

- 1.1 Explain influencing factors of nutrition status
- 1.2 Mention method of nutrition status
- 1.3 Mention agent, host, and environment of nutrition problem
- 1.4 Mention type of growth
- 1.5 Explain definition of antropometri principal
- 1.6 Mention parameter of antropometri & measurement of body composition

## F REFERENCE

1. Almastier Prinsip Dasae Ilmu Gizi. Gramedia, Jakarta
2. Gibson RS. 1990. Principles of Nutritional Assesment. Oxford University New york

3. Gibson RS. 1990. Principles of Nutritional Assesment. Laboratory Oxford University  
New York
4. Howston, CP, Kennedy. 1998. Prevention of Micronutrient Deficiencies. National  
Academy Press. Washington