

# SET OF LECTURE'S TIME TABLE (SAP)

Introduction of Geodesy (TGD 108-2 SKS)



By:

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**ENGINEERING FACULTY**

**DIPONEGORO UNIVERSITY**

**2008**

## SET OF LECTURE'S TIME TABLE (SAP)

**Subject** : Introduction of Geodesy

**Subject Code** : TGD 108-2 SKS

**Meeting Time** : 2x50 menit (100 Menit)

**Week Meeting** : 1

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Geodesy, Geomatica and Geoinformation and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

" Explain concept and history early geodesy and geomatika of geoinformation "

" Explaining benefit and usefulness of geodesy, and geomatika of geoinformasi "

" Formulation of geodesy science branch, and geomatika of geoinformasi along with the area of him"

B. Main Subject : Introduction of Geodesy.

C. Sub Main Subject :

1. Explanation Of Introductory Specifics Discussion of Geodesy.

2. Explanation of concept and history early geodesy, and geomatica of geoinformation.

3. Explanation of benefit and usefulness of geodesy, and geomatica of geoinformation.

4. Explanation of formulation of geodesy science branch, and geomatika of geoinformasi along with the area of formulation.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	<ol style="list-style-type: none"> <li>1. Introduction of geodesy explanation.</li> <li>2. Introduction of geodesy Advantages Explanation.</li> <li>3. Competency Explanation TIU and TIK.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Main	<ol style="list-style-type: none"> <li>1. Explanation Of Introductory Specifics Discussion of Geodesy.</li> <li>2. Explanation of concept and history early geodesy, and geomataca of geoinformation.</li> <li>3. Explanation of benefit and usefulness of geodesy, and geomataca of geoinformation.</li> <li>4. Explanation of formulation of geodesy science branch, and geomatika of geoinformasi along with the area of formulation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Closing	<ol style="list-style-type: none"> <li>1. Summary subject which have been submitted.</li> <li>2. Give questions, discuss and homeworks.</li> <li>3. Give general explanation about the next material of subject.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Referensi:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject : Introduction of Geodesy**

**Subject Code : TGD 108-2 SKS**

**Meeting Time : 2x50 menit (100 Menit)**

**Week Meeting : 2**

G. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Coordinate System and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Formulating implementation and understanding of coordinate systems concept.

2. Can define and formulate each;every method determination of horizontal position.

3. Comprehending implementation from each;every coordinate systems which used in geodesy science study, and geomatica of geoinformation.

H. Main Subject : Coordinate System.

I. Sub Main Subject :

1. Explanation of elementary concept and understanding of coordinate systems

2. Understanding and line co-ordinate application

3. Understanding and co-ordinate application 2D.

H. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	<ol style="list-style-type: none"> <li>1. Coordinate System explanation.</li> <li>2. Coordinate System Advantages Explanation.</li> <li>3. Competency Explanation TIU and TIK.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Main	<ol style="list-style-type: none"> <li>1. Explanation of elementary concept and understanding of coordinate systems</li> <li>2. Understanding and line co-ordinate application</li> <li>3. Understanding and co-ordinate application 2D.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Closing	<ol style="list-style-type: none"> <li>4. Summary subject which have been submitted.</li> <li>5. Give questions, discuss and homeworks.</li> <li>6. Give general explanation about the next material of subject.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board

I. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

J. Referensi:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : Introduction of Geodesy

**Subject Code** : TGD 108-2 SKS

**Meeting Time** : 2x50 menit (100 Menit)

**Week Meeting** : 3

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Coordinate System and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Formulating implementation and understanding of coordinate systems concept

2. Can define and formulate each;every method determination of horizontal position

3. Comprehending implementation from each;every coordinate systems which used in geodesy science study, and geomatica-geoinformation.

B. Main Subject : Coordinate System.

C. Sub Main Subject :

1. Explanation of coordinate systems application and understanding of geographic

2. Explanation of coordinate systems application and understanding of cartesian.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Coordinate System explanation.	1. Listening	OHP,
	2. Coordinate System Advantages Explanation.	2. Discuss	OHT,
	3. Compentency Explanation TIU and TIK.		White Board
Main	1. Explanation of elementary	1. Listening	OHP,

	concept and understanding of coordinate systems 2. Understanding and line coordinate application 3. Understanding and coordinate application 2D.	2. Discuss	OHT, White Board
Closing	1. Summary subject which have been submitted. 2. Give questions, discuss and homeworks. 3. Give general explanation about the next material of subject.	1. Listening 2. Discuss	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 4

**A. Target :**

1. General Instructional Target  
 In final of lecturing expected by student to obtain knowledge and understanding of Coordinate System and also implementation with precisely.
2. Spesific Instructional Target  
 After attending the lecture with Introduction Topic expected by student can:
  1. Formulating implementation and understanding of coordinate systems concept
  2. Can define and formulate each;every method determination of horizontal position
  3. Comprehending implementation from each;every coordinate systems which used in geodesy science study, and geomatica of geoinformation.

**B. Main Subject : Coordinate System.**

**C. Sub Main Subject :**

1. Explanation of geodetical coordinate systems application and understanding
2. Explanation of coordinate systems application and understanding of geosentric
3. Explanation of coordinate systems application and understanding of toposentric.

**D. Lecturing Activity :**

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Coordinate System explanation.	1. Listening 2. Discuss	OHP, OHT,
	2. Coordinate System Advantages Explanation.		White Board
	3. Compentency Explanation TIU and TIK.		
Main	1. Explanation of geodetical coordinate systems	1. Listening 2. Discuss	OHP, OHT,



	<p>application and understanding</p> <p>2. Explanation of coordinate systems application and understanding of geosentric</p> <p>3. Explanation of coordinate systems application and understanding of toposentric.</p>		White Board
Closing	<p>1. Summary subject which have been submitted.</p> <p>2. Give questions, discuss and homeworks.</p> <p>3. Give general explanation about the next material of subject.</p>	<p>1. Listening</p> <p>2. Discuss</p>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, et al. *Surveying Theory and Practice*. New York: McGraw Hill

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UGM

**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 5

**A. Target :**

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Physic Geodesy and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Understanding of geoid and ellipsoid related msl in geoid and ellipsoid
2. Understanding of relation between 2 direction and also ball distance and azimuth
3. Understanding of ball definition and notation cover transversally of geodesy line and longitude.

**B. Main Subject : Physic Geodesy**

**C. Sub Main Subject :**

1. Understanding of geoid and ellipsoid related msl in geoid and ellipsoid
2. Understanding of relation between 2 direction and also ball distance and azimuth

**D. Lecturing Activity :**

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Physic Geodesy explanation. 2. Physic Geodesy Advantages Explanation. 3. Compentency Explanation TIU and TIK.	1. Listening 2. Discuss	OHP, OHT, White Board

Main	<ol style="list-style-type: none"> <li>1. Understanding of geoid and ellipsoid related msl in geoid and ellipsoid</li> <li>2. Understanding of relation between 2 direction and also ball distance and azimuth</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Closing	<ol style="list-style-type: none"> <li>4. Summary subject which have been submitted.</li> <li>5. Give questions, discuss and homeworks.</li> <li>6. Give general explanation about the next material of subject.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 6

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Physic Geodesy and also implementation with precisely.

2. Specific Instructional Target

After attending the lecture with Physic Geodesy Topic expected by student can:

1. Understanding of geoid and ellipsoid related msl with geoid and ellipsoid.
2. Understanding of relation 2 direction and distance and azimuth ball.
3. Understanding of ball definition and notation cover transversally of geodesic line and longitude.

C. Main Subject : Physic Geodesy

D. Sub Main Subject :

1. Understanding of geoid and ellipsoid related msl in geoid and ellipsoid
2. Understanding of relation between 2 direction and also ball distance and azimuth

E. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Physic Geodesy explanation.	1. Listening 2. Discuss	OHP, OHT,
	2. Physic Geodesy Advantages Explanation. 3. Compentency Explanation TIU and TIK.		White Board
Main	1. Understanding of geoid and ellipsoid related msl	1. Listening 2. Discuss	OHP, OHT,

	in geoid and ellipsoid 2. Understanding of relation between 2 direction and also distance and azimuth ball.		White Board
Closing	1. Summary subject which have been submitted. 2. Give questions, discuss and homeworks. 3. Give general explanation about the next material of subject.	1. Listening 2. Discuss	OHP, OHT, White Board

F. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

G. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 7

**A. Target :**

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Database System and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Comprehending elementary concept and understanding of data base system.
2. Can formulate data bases management system concept.
3. Can explain assortedly of data bases system implementation..

**C. Main Subject : Database System**

**D. Sub Main Subject :**

1. Explanation and understanding of elementary concept and understanding of data base system
2. Explanation and understanding kinds of data bases system structure
3. Explanation and understanding of advantage and disadvantage in data bases system.

**E. Lecturing Activity :**

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Database System explanation.	1. Listening	OHP,
	2. Database System Advantages Explanation.	2. Discuss	OHT, White Board
	3. Compentency Explanation TIU and TIK.		
Main	1. Explanation and	1. Listening	OHP,

	<p>understanding of elementary concept and understanding of data base system</p> <p>2. Explanation and understanding kinds of data bases system structure</p> <p>3. Explanation and understanding of advantage and disadvantage in data bases system.</p>	2. Discuss	OHT, White Board
Closing	<p>1. Summary subject which have been submitted.</p> <p>2. Give questions, discuss and homeworks.</p> <p>3. Give general explanation about the next material of subject.</p>	<p>1. Listening</p> <p>2. Discuss</p>	OHP, OHT, White Board

F. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

G. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

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**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 8

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Introduction of Geodesy and also implementation with precisely.

2. Spesific Instructional Target

After following test mid-term ( UTS) expected that student can comprehend lecture's topic which have been given since week first till week of ke-7.

B. Main Subject : -

C. Sub Main Subject : -

D. Lecturing Activity : -

E. Evaluation: -

F. Reference: -

**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 9

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Database System and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:



1. Comprehending elementary concept and understanding of data base system.
2. Can formulate data bases management system concept.
3. Can explain assortedly of data bases system implementation..

B. Main Subject : Database System

C. Sub Main Subject :

1. Explanation of concept three data bases system architecture scheme.
2. Explanation of data bases system structure along with his implementation advantage and disadvantage.
3. Explanation of applying of data bases structure implementation simply.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	<ol style="list-style-type: none"> <li>1. Database System explanation.</li> <li>2. Database System Advantages Explanation.</li> <li>3. Competency Explanation TIU and TIK.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Main	<ol style="list-style-type: none"> <li>1. Explanation of concept three data bases system architecture scheme.</li> <li>2. Explanation of data bases system structure along with his implementation advantage and disadvantage.</li> <li>3. Explanation of applying of data bases structure implementation simply.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Closing	<ol style="list-style-type: none"> <li>1. Summary subject which have been submitted.</li> <li>2. Give questions, discuss</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White

	and homeworks.		Board
	3. Give general explanation about the next material of subject.		

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, et al. *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject : Introduction of Geodesy**

**Subject Code : TGD 108-2 SKS**

**Meeting Time : 2x50 menit (100 Menit)**

**Week Meeting : 10**

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Database-System-and-also-implementation-with-precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Comprehending elementary concept and understanding of data base system.
2. Can formulate data bases management system concept.
3. Can explain assortedly of data bases system implementation..

B. Main Subject : Database System

C. Sub Main Subject :

1. Explaining elementary concept of data bases management system
2. Explaining data bases management system structure
3. Explaining data bases management system implementation simply.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	<ol style="list-style-type: none"> <li>1. Database System explanation.</li> <li>2. Database System Advantages Explanation.</li> <li>3. Compentency Explanation TIU and TIK.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Main	<ol style="list-style-type: none"> <li>1. Explaining elementary concept of data bases management system</li> <li>2. Explaining data bases management system structure</li> <li>3. Explaining data bases management system implementation simply.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Closing	<ol style="list-style-type: none"> <li>1. Summary subject which have been submitted.</li> <li>2. Give questions, discuss and homeworks.</li> <li>3. Give general explanation about the next material of subject.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al. Surveying Theory and Practice*. New York: McGraw Hill

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**Subject : Introduction of Geodesy**

**Subject Code : TGD 108-2 SKS**

**Meeting Time : 2x50 menit (100 Menit)**

**Week Meeting : 11**

**B. Target :**

**1. General Instructional Target**

In final of lecturing expected by student to obtain knowledge and understanding of Geographical Information System and also implementation with precisely.

**2. Spesific Instructional Target**

After attending the lecture with Introduction Topic expected by student can:

1. Understanding of Geographical Information System.

2. Understanding of simple application of Geographical Information System.

**B. Main Subject : Database System**

**C. Sub Main Subject :**

1. Understanding of Geographical Information System.

2. Understanding of simple application of Geographical Information System.

**D. Lecturing Activity :**

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Geographical Information System explanation. 2. Geographical Information System Advantages Explanation.	1. Listening 2. Discuss	OHP, OHT, White Board

	3. Competency Explanation TIU and TIK.		
Main	1. Understanding of Geographical Information System. 2. Understanding of simple application of Geographical Information System.	1. Listening 2. Discuss	OHP, OHT, White Board
Closing	1. Summary subject which have been submitted. 2. Give questions, discuss and homeworks. 3. Give general explanation about the next material of subject.	1. Listening 2. Discuss	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

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**Subject** : Introduction of Geodesy  
**Subject Code** : TGD 108-2 SKS  
**Meeting Time** : 2x50 menit (100 Menit)  
**Week Meeting** : 12

C. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Geographical Information System and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Understanding of Geographical Information System.
2. Understanding of simple application of Geographical Information System.

B. Main Subject : Geographical Information System

C. Sub Main Subject :

1. Understanding of simple application of Geographical Information System
2. Explanation of path work Geographical Information System pursuant to elementary concept of Geodesy and Geomatica.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Geographical Information System explanation.	1. Listening 2. Discuss	OHP, OHT, White Board
	2. Geographical Information System Advantages Explanation.		
	3. Compentency Explanation TIU and TIK.		
Main	1. Understanding of simple application of Geographical Information	1. Listening 2. Discuss	OHP, OHT, White

	System 2. Explanation of path work Geographical Information System pursuant to elementary concept of Geodesy and Geomatica.		Board
Closing	1. Summary subject which have been submitted. 2. Give questions, discuss and homeworks. 3. Give general explanation about the next material of subject.	1. Listening 2. Discuss	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : Introduction of Geodesy

**Subject Code** : TGD 108-2 SKS

**Meeting Time** : 2x50 menit (100 Menit)

**Week Meeting** : 13

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Geographical Information System and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Understanding of Geographical Information System.

2. Understanding of simple application of Geographical Information System.

B. Main Subject : Geographical Information System

C. Sub Main Subject :

1. Explaining digital mapping interaction and data bases system pursuant to concept of geocoding

2. Explaining geographical information system implementation with remote sensing, digital mapping and database system.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Geographical Information System explanation. 2. Geographical Information System Advantages Explanation.	1. Listening 2. Discuss	OHP, OHT, White Board
	3. Compentency Explanation TIU and TIK.		
Main	1. Explaining digital mapping interaction and data bases	1. Listening 2. Discuss	OHP, OHT,



	<p>system pursuant to concept of geocoding</p> <p>2. Explaining geographical information system implementation with remote sensing, digital mapping and database system.</p>		White Board
Closing	<p>1. Summary subject which have been submitted.</p> <p>2. Give questions, discuss and homeworks.</p> <p>3. Give general explanation about the next material of subject.</p>	<p>1. Listening</p> <p>2. Discuss</p>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

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Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : Introduction of Geodesy

**Subject Code** : TGD 108-2 SKS

**Meeting Time** : 2x50 menit (100 Menit)

**Week Meeting** : 14

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Remote Sensing and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Understanding and elementary concept of remote sensing.

2. Understanding and application from remote sensing satellite system.

B. Main Subject : Remote Sensing

C. Sub Main Subject :

1. Understanding and elementary concept of remote sensing.

2. Understanding and application from remote sensing satellite system.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	1. Remote Sensing explanation.	1. Listening	OHP, OHT, White Board
	2. Remote Sensing Advantages Explanation.	2. Discuss	
	3. Compentency Explanation TIU and TIK.		
Main	1. Understanding and elementary concept of remote sensing. 2. Understanding and application from remote	1. Listening 2. Discuss	OHP, OHT, White Board

	sensing satellite system.		
Closing	<ol style="list-style-type: none"> <li>1. Summary subject which have been submitted.</li> <li>2. Give questions, discuss and homeworks.</li> <li>3. Give general explanation about the next material of subject.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject : Introduction of Geodesy**

**Subject Code : TGD 108-2 SKS**

**Meeting Time : 2x50 menit (100 Menit)**

**Week Meeting : 15**

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Remote Sensing and also implementation with precisely.

2. Spesific Instructional Target

After attending the lecture with Introduction Topic expected by student can:

1. Understanding and elementary concept of remote sensing.
2. Understanding and application from remote sensing satellite system.

B. Main Subject : Remote Sensing

C. Sub Main Subject :

1. Explanation kinds of resolution which there are in remote sensing system.
2. Explanation of growth of remote sensing technology nowadays.

D. Lecturing Activity :

Step	Lecturing Activity	Student Activity	Media
Introduction	<ol style="list-style-type: none"> <li>1. Remote Sensing explanation.</li> <li>2. Remote Sensing Advantages Explanation.</li> <li>3. Competency Explanation TIU and TIK.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Main	<ol style="list-style-type: none"> <li>1. Explanation kinds of resolution which there are in remote sensing system.</li> <li>2. Explanation of growth of remote sensing technology nowadays.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board
Closing	<ol style="list-style-type: none"> <li>1. Summary subject which have been submitted.</li> <li>2. Give questions, discuss and homeworks.</li> <li>3. Give general explanation about the next material of subject.</li> </ol>	<ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Discuss</li> </ol>	OHP, OHT, White Board

E. Evaluation:

Make discussion and question-answer together to understand about student knowledge understanding onto subject material.

F. Reference:

Bomford. 1975. *Geodesy*. London: Oxford University Press

Mickhail, *et al.* *Surveying Theory and Practice*. New York: McGraw Hill

Prihandito, A. 1988. *Proyeksi Peta*. Yogyakarta: PT. Kanisius.

Soetoto, A. Setianto. 2005. *Geologi Citra Penginderaan Jauh*. Yogyakarta: Teknik Geologi FT UGM

**Subject** : **Introduction of Geodesy**

**Subject Code** : **TGD 108-2 SKS**

**Meeting Time** : **2x50 menit (100 Menit)**

**Week Meeting** : **16**

A. Target :

1. General Instructional Target

In final of lecturing expected by student to obtain knowledge and understanding of Introduction of Geodesy and also implementation with precisely.

2. Spesific Instructional Target

After following Final Test ( UAS) expected that student can comprehend lecture's topic which have been given since week first till week of ke-16.

B. Main Subject : -

C. Sub Main Subject:-

D. Lecturing Activity :-

E. Evaluation:-

F. Reference: -