

ALGEBRA I

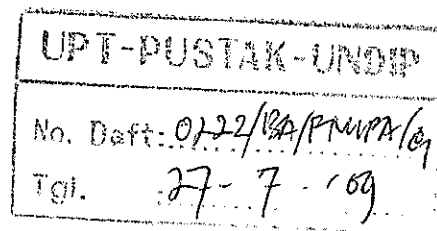
COURSE CODE: PAM 202

3 SCU

SEMESTER IV



BY:



**MATHEMATICS STUDY PROGRAM
MATHEMATICS AND NATURAL SCIENCES FACULTY
DIPONEGORO UNIVERSITY
SEMARANG**

LINE OUTLINE PROGRAM INSTRUCTION (GBPP)

SUBJECT TITLE : Algebra of I

CODE NUMBER / SKS : PAM 202 / 4 SKS

SHORT DISCRPTION :

Algebra of I [is] eye of kuliah [is] obliged to passed to semester student of IV Majors Mathematics of FMIPA UNDIP. This subject represent deliverer of Algebra Abstraction discussion area which studying various congeniality / elementary concept [of] gathering algebra structure that is grup,sifat of[is nature of going into effect [at] grup, grup homomorphisma, grup continue, special form form and ring of ring.

this subject try as possible study elementary concept [of] abstraction algebra theory , started by inviting student develop;build its science [regarding/ hit] concept a[n definition, theorem and followed by making some example [of] , problem example [of] and problem practice.

eye of Kuliah is important in order to to draw up student in studying high level mathematics and computer science.

TARGET OF [COMMON/ PUBLIC] INSTRUKSIONAL

After following this subject [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain [relation/link] of kosep elementary concept [of] abstraction algebra specially grup, subgrup, and ring in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow this subject [of] student expected [by] have comprehended gathering concept, relationship, binary operation and function.

No	Target of special Instruksional.	Fundamental Discussion.	Sub Fundamental Discussion	Time Estimation	References
1	Student will be able to explain concept of grup, making example [of] of grup, explaining the nature of the nature of had by grup and explain grup in gathering algebra structure..	Group	1. Group Concept 2. Fundamental Property of Group 3. Subgrup 4. Cyclic Group 5. Group Isomorphism 6. Permutation Group (symmetry grup)	8 times meeting (8x120 minute)	[1],page 33- 69 [2],page 83 - 135 [3],page 31- 180
2	Student will be able to explain concept of grup continue, making example [of] of grup continue, explaining the nature of the nature of had by grup continue and explain grup	Advance Group	1.Koset 2.Normal Subgroup 3.Kuosen Group (factor group) 4.Homomorphisma Group	4 times meting (4x120 minutes)	[1],page 44- 62 [2],page 137- 155 [3],page 181- 209

	continue in gathering algebra structure..				
3	Student will be able to explain concept of ring, making example [of] of ring, explaining the nature of the nature of had by ring and explain ring in gathering algebra structure.	Ring	1.Ring 2.Integral Doain and Field 3.Ideal 4.Kuosen Ring	5 times meetings (5x120 minutes)	[1],page 71-79 [2],page 174-194 [3],page 313-373

REFERENCES :

- 1.Jimmie Gilbert & Linda Gilbert, “ Modern of Modern Algebra “
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, “Modern Algebra “,S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,”Aljabar”,Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject: Algebra of I
Code Subject: PAM 202
Time Meeting : 1 X 120 minute
Lecturing : 2

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can To explain grup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow Subject [of] student expected [by] have comprehended gathering concept, relationship, binary operation and function

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP earn :

- 1.To explain concept of grup
- 2.To make example [of] of grup
- 3.To explain nature of the nature of had by grup
- 4.To explain grup in gathering algebra structure

B. Fundamental Discussion : Group

C. Sub of Fundamental Discussion : Group

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction equipment
Preamble	1.To explain lecturing items coverage and benefit. 2.To explain TIU and of TIK	Paying attention	Blackboard and OHP
Presentation	1.To Build concept of grup of student 2.To Embrace concept obtained to obtain;get definition of grup 3.To give some example [of] of grup	Giving idea contribution Paying attention Paying attention	Blackboard and OHP Blackboard and OHP Blackboard and OHP
Conclusion	1.To ask lecturing items ambit 2.To give reinforcement to lecturing items ambit 3.To give self-supporting duty as practice at home 4.To give next lecturing items infomasi	Giving idea contribution Paying attention Noting Paying attention	Blackboard and OHP Blackboard and OHP Blackboard and OHP Blackboard and OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject: Algebra of I

Code Subject: PAM 202

Time Meeting : 1 X 120 minute

Lecturing : 2

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain the nature of the nature of modestly from grup so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can

A To explain the nature of the nature of modestly from grup

B. Fundamental Discussion : Grup

C. Fundamental Sub [of] Discussion : Nature of the nature of modestly Grup

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To explain benefit and Items lecturing coverage. 2.To explain TIU and of TIK 3.To ask Items lecturing ambit	Paying attention Paying attention Paying attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Presentation	1.To Build conception the nature of the nature of grup of student 2.To Embrace concept obtained to obtain;get the nature of the nature of grup 3.To give some example [of]	Giving idea contribution Paying attention Paying attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying attention Paying attention Noting Paying attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 4

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept subgroup
- 2.To make example subgroup
- 3.To explain sifat sifat yang dimiliki oleh subgroup
- 4.To explain subgroup di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Grup

C. Sub of Fundamental Discussion : Subgrup

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To benefit explain and Items lecturing coverage. 2.To TIU explain and of TIK original 3.To [of] last Items lecturing ambit	Paying Attention	Papan tulis & OHP
		Paying Attention	Papan tulis & OHP
		Paying Attention	Papan tulis & OHP
Presentation	1.To Build conception subgroup of student 2.To Embrace concept obtained to obtain;get definition of subgroup 3.To give some example [of] of subgroup	Giving idea contribution	Blackboard & OHP
		Paying Attention	Blackboard & OHP
		Paying Attention	Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution	Blackboard & OHP
		Paying Attention	Blackboard & OHP
		Noting	Blackboard & OHP
		Paying Attention	Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
Subject Code : PAM 202
Meeting Time : 1 X 120 minute
Lecturing : 9

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept grup siklik
- 2.To make example grup siklik
- 3.To explain sifat sifat yang dimiliki oleh grup siklik
- 4.To explain grup siklik di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Grup

C. Sub of Fundamental Discussion : Grup Siklik

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To benefit explain and Items lecturing coverage. 2.To TIU explain and of TIK original 3.To [of] last Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception siklik grup of	Giving idea	Blackboard &

	student 2.To Embrace concept obtained to obtain;get definition of grup siklik 3.To give some example [of] of grup siklik	contribution Paying Attention Paying Attention	OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
Subject Code : PAM 202
Meeting Time : 1 X 120 minute
Lecturing : 10

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept isomorphisma grup
- 2.To make example concept isomorphisma grup

B. Fundamental Discussion : Grup

C. Sub of Fundamental Discussion : Isomorphisma Grup

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To explain manfaat dan cakupan Materi perkuliahan. 2.To explain TIU dan TIK 3.To ask rangkuman Materi perkuliahan yang lalu	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build concept isomorphisma grup dari mahasiswa 2.To Embrace concept yang diperoleh untuk memperoleh definisi isomorphisma grup 3.To give beberapa example isomorphisma grup	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To ask rangkuman Materi perkuliahan 2.To give penguatan terhadap rangkuman Materi perkuliahan 3.To give tugas mandiri sebagai latihan di rumah 4.To give infomasi Materi perkuliahan berikutnya	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 11

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept grup simetri
- 2.To make example grup simetri
- 3.To explain sifat sifat yang dimiliki oleh grup simetri
- 4.To explain grup simetri di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Grup

C. Sub of Fundamental Discussion : Grup Simetri (Grup Permutasi)

D. Lecturing Activity

Steps	Lecturer Ativity	Student Activity	Media and Instruction Equipment
Preamble	1.To benefit explain and Items lecturing coverage. 2.To TIU explain and of TIK original 3.To [of] last Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception symmetry grup of student 2.To Embrace concept obtained to obtain;get definition of grup symmetry 3.To give some example [of] of grup symmetry	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung
andung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 17

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgrup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept koset
- 2.To make example koset

B. Fundamental Discussion : Advance Group

C. Sub of Fundamental Discussion : Koset

D. Lecturing Activity

Steps	Lecturer Ativity	Student Activity	Media and Instruction Equipment
Preamble	1.To benefit explain and Items lecturing coverage. 2.To TIU explain and of TIK original 3.To [of] last Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception koset of student 2.To Embrace concept obtained to obtain;get definition of koset 3.To give some example [of] of koset	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items	Giving idea contribution	Blackboard & OHP

	lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
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E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
Subject Code : PAM 202
Meeting Time : 1 X 120 minute
Lecturing : 18

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept Normal Sub Group
- 2.To make example Normal Sub Group
- 3.To explain sifat sifat yang dimiliki oleh Normal Sub Group
- 4.To explain Normal Sub Group di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Advance Group

C. Sub of Fundamental Discussion : Normal Sub Group

D. Lecturing Activity

Steps	Lecturer Ativity	Student Ativity	Media and Instruction
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			Equipment
Preamble	1.To benefit explain and Items lecturing coverage. 2.To TIU explain and of TIK original 3.To [of] last Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception normal subgroup of student 2.To Embrace concept obtained to obtain;get definition of Normal Sub Group 3.To give some example [of] of Normal Sub Group	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
Subject Code : PAM 202
Meeting Time : 1 X 120 minute
Lecturing : 19

A Target Of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept Kuosen Group
- 2.To make example Kuosen Group
- 3.To explain sifat sifat yang dimiliki oleh Kuosen Group
- 4.To explain Kuosen Group di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Advance Group

C. Sub of Fundamental Discussion : Kuosen Group (Grup Faktor)

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To benefit explain and Items lecturing coverage. 2.To TIU explain and of TIK original 3.To [of] last Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception Kuosen grup of student 2.To Embrace concept obtained to obtain;get definition of Kuosen Group 3.To give some example [of] of Kuosen Group	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 20

A. Target of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character.

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept homomorphisma grup
- 2.To make example concept homomorphisma grup

B. Fundamental Discussion : Advance Group

C. Sub of Fundamental Discussion : Homomorphisma Grup

D. Lecturing Activity

Steps	Lecturer Ativity	Student Ativity	Media and Instruction Equipment
Preamble	1.To explain benefit and Items lecturing coverage. 2.To explain TIU and of TIK 3.To ask Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception the nature of the nature of grup of student 2.To Embrace concept obtained to obtain;get the nature of the nature of grup 3.To give some example [of] homomorphisma grup	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

1. Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
2. M.D. Raisinghanian & R.S. Anggarwal, 1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
3. Achmad Arifin, 2003, "Algebra", Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 24

A. Target of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character.

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

1. To explain concept ring
2. To make example ring
3. To explain sifat sifat yang dimiliki oleh ring
4. To explain ring di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Ring

C. Sub of Fundamental Discussion : ring

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1. To explain benefit and Items lecturing coverage. 2. To explain TIU and of TIK 3. To ask Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1. To Build conception the nature of the nature of grup of student	Giving idea contribution	Blackboard & OHP

	2.To Embrace concept obtained to obtain;get the nature of the nature of ring 3.To give some example [of] ring	Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
Subject Code : PAM 202
Meeting Time : 1 X 120 minute
Lecturing : 25

A. Target of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept Integral Domain and Field
- 2.To make example Integral Domain and Field
- 3.To explain sifat sifat yang dimiliki oleh Integral Domain and Field
- 4.To explain Integral Domain and Field di dalam struktur Algebra himpunan.

B. Fundamental Discussion : Ring

C. Sub of Fundamental Discussion : Integral Domain and Field

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To explain benefit and Items lecturing coverage. 2.To explain TIU and of TIK 3.To ask Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception the nature of the nature of grup of student 2.To Embrace concept obtained to obtain;get the nature of the nature of ring 3.To give some example [of] Integral Domain and Field	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 26

A. Target of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character.

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

- 1.To explain concept Ideal
- 2.To make example Ideal
- 3.To explain property of Ideal
- 4.To explain Ideal in structure of set Algebra.

B. Fundamental Discussion : Ring

C. Sub of Fundamental Discussion : Ideal

D. Lecturing Activity

Steps	Lecturer Activity	Student Activity	Media and Instruction Equipment
Preamble	1.To explain benefit and Items lecturing coverage. 2.To explain TIU and of TIK 3.To ask Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1.To Build conception the nature of the nature of grup of student 2.To Embrace concept obtained to obtain;get the nature of the nature of ring 3.To give some example [of] Ideal	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1.To is original [of] Items lecturing ambit 2.To give reinforcement to Items lecturing ambit 3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Giving idea contribution Paying Attention Noting Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP Blackboard & OHP

E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghania & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung

SET OF EVENT INSTRUCTION

Subject : Algebra I
 Subject Code : PAM 202
 Meeting Time : 1 X 120 minute
 Lecturing : 27

A. Target of Instructional

1. Common :

After following this lecturing [is] expected [by] semester student of IV Majors Mathematics of FMIPA UNDIP can explain subgroup in gathering algebra structure so that can use [him/it] in supporting growth of abstraction algebra alone and other science science for example computer science.

To be able to follow eye of kuliah this [of] student expected [by] have comprehended concept of grup and nature of in character.

2. Special :

After following this lecturing [is] expected [by] semester student of IV Majors of MATEMATIKA FMIPA UNDIP earn :

1. To explain concept of Ring Kuosen (Ring Faktor)
2. To make example of Ring Kuosen (Ring Faktor)
3. To explain property of oleh Ring Kuosen (Ring Faktor)
4. To explain Ring Kuosen (Ring Faktor) in structure of set Algebra.

B. Fundamental Discussion : Ring

C. Sub of Fundamental Discussion : Ring Kuosen (Factor Ring)

D. Lecturing Activity

Steps	Lecturer Ativity	Student Activity	Media and Instruction Equipment
Preamble	1. To explain benefit and Items lecturing coverage. 2. To explain TIU and of TIK 3. To ask Items lecturing ambit	Paying Attention Paying Attention Paying Attention	Papan tulis & OHP Papan tulis & OHP Papan tulis & OHP
Presentation	1. To Build conception the nature of the nature of grup of student 2. To Embrace concept obtained to obtain; get the nature of the nature of ring 3. To give some example [of] Ring Kuosen	Giving idea contribution Paying Attention Paying Attention	Blackboard & OHP Blackboard & OHP Blackboard & OHP
Conclusion	1. To is original [of] Items lecturing ambit 2. To give reinforcement to Items lecturing ambit	Giving idea contribution Paying Attention	Blackboard & OHP Blackboard &

	3.To give self-supporting duty as practice at home 4.To give next Items lecturing infomasi	Noting Paying Attention	OHP Blackboard & OHP Blackboard & OHP
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E. Evaluation :

Instrument the used [is] self-supporting duty value to measure ability of pemahan of student in following lecturing and measure efficacy of process learn to teach

F. References :

- 1.Jimmie Gilbert & Linda Gilbert " Modern [of] Modern of [of] Algebra "
- 2.M.D.Raisinghanian & R.S.Anggarwal,1990, " Modern [of] Algebra ", S.Chand & Company Ltd.
- 3.Achmad Arifin, 2003,"Algebra",Published ITB Bandung