



**YOGYAKARTA STATE UNIVERSITY  
FACULTY OF MATHEMATICS AND NATURAL SCIENCE**

**LESSON PLAN**

**RPP/MAA 319/01  
1 April 2010**

1. Faculty /Study Program : Mathematics and Natural Science/Mathematics Education
2. Course / Code : Computer Programming, MAA 319
3. Credit : Theory : 2 Practice : 1
4. Semester/Time : Sem: V, Time : 2 x 100 minutes
5. Basic Competence : Students are able to compose an algorithm for a given problem
6. Indicator :
  - Student are able to compose an algorithm for a given problem
  - Student are able to express an algorithm into natural language, flowchart, pseudo code and programming language
7. Essential Concepts : Algorithm
8. Learning Activity : 1

Component	Detail Activity	Time	Method	Media	References	Character
Opening	Lecturer explains the objective of the course and motivates students related to topic	5'	Explanation and Discussion	Computer, LCD	A:1-3	Thinking logically, critically, creatively, and innovatively
Main Activities	<ul style="list-style-type: none"> <li>• Lecturer explains the introducing of algorithm</li> <li>• Students are invited to give active participation in the discussion to compose algorithm for a given problem</li> <li>• In pair, students discuss to express algorithm in many ways</li> <li>• Students present their idea</li> <li>• Other students give their opinion</li> </ul>	80'	Explanation Demonstration, Discussion, practice, group work			Caring about social matters and environment
Closure	<ul style="list-style-type: none"> <li>• Student and lecturer concludes todays topic</li> <li>• Lecturer gives assignment</li> </ul>	10'				
Follow up	Students are suggested to study further about algorithm and find many resources about them in the Internet	5'				

Learning Activity : 2 (practice, 1 sks practice = 100')

Component	Detail Activity	Time	Method	Media	References	Character
Opening	Lecturer greets students and asks some students to tell the main idea of last topic Lecturers delivers a lab sheet	5'	Explanation and Discussion	Computer, worksheet		Thinking logically, critically, creatively, and innovatively
Main Activities	Students practice and do exercises to compose an algorithm to solve some problems	80'	Practice, by self/in a group		worksheet / quiz	Caring about social matters and environment
Closure	Lecturer gives feedback to the result of students' work	10'	Explanation			
Follow up	Lecturer describes the introduction of the next material Students are supposed to read the next material in handout and explore the Internet.	5'	Explanation			

9. Assessment

Write down the algorithm to find  $n!$  ( $n$  factorial). Express the algorithm using flowchart.

10. References

A. Compulsory :

Sri Andayani, 2010. Handout of Computer Programming, FMIPA UNY.

B. Additional

1. Jogiyanto, H.M. (1989). Turbo Pascal, Yogyakarta, Andi Offset
2. <http://pascalprogramming.byethost15.com>
3. <http://www.taoyue.com>
4. <http://www.geocities.com/SiliconValley/Horizon/5444/>

Yogyakarta, 23 August 2010  
Lecturer,

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