



**LESSON PLAN**

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

1. Faculty /Study Program : Mathematics and Science/Mathematics Education
2. Course & Code : Computer Application, MAA311
3. Credit : Theory : 2 sks Practice: 1 sks
4. Semester/Time : IV, Time: 100 minutes
5. Basic competence : Students know and can operate some mathematics software, include their features.
6. Indicator :
  - Student knows some mathematics software, i.e. MATLAB, Maple and Mathematica
  - Student can use the softwares and operate them well
  - Student understands the features of the softwares
7. Essential Concepts : Introducing some mathematics softwares
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	Thinking logically, critically, creatively, and innovatively
Main Activities	<ul style="list-style-type: none"> <li>• Lecturer explains the introduction of MATLAB, maple and Mathematica</li> <li>• Lecturer demonstrates the usage of MATLAB, maple and Mathematica</li> <li>• Students do the same thing in their computer and discuss in a group</li> <li>• Lecturer facilitates the students to get further information about some features in the software.</li> </ul>	80'	Explanation Demonstration, Discussion, practice, group work			Caring about social matters and environment  Appreciative of works and achievements of others
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 asked to go to <a href="http://www.mathworks.com">http://www.mathworks.com</a> and open the DEMO and	5'				

	HELP in MATLAB to study further about the features					
--	--	--	--	--	--	--

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

Component	Detail Activity	Time	Method	Media	References	Character
Opening	Lecturer greets tudents 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 doing exercises to solve some problem using the software	80'	Practicum using computer, 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			Appreciative of works and achievements of others
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

##### Quiz:

- What is the difference of variable in MATLAB, Maple and Mathematica?
- Use the arithmetic operator in MATLAB, Maple and Mathematica to operate some numbers.

##### Assignment:

Find the command to create a matrix in MATLAB, Maple and Mathematica in the Internet. Write your result in MS Word and submit your paper.

#### 10. Reference

Compulsory:

- Sri Andayani, Handout of Computer Application, FMIPA UNY 2009

Additional:

- Hanselman, D. & Littlefield, B. 2000. Mastering MATLAB, A Comprehensive Tutorial and Reference. Prentice-Hall International, Inc.
- <http://www.matworks.com/access/helpdesk/help/>
- <http://www.math.siu.edu/matlab/tutorial2.pdf>

Yogyakarta, 21 December 2010  
Professor,

Sri Andayani, M.Kom  
NIP 19720426 199702 2 001