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 use various standard functions in Pascal to compose a program  
6. Indicator :   
   ➢ Students are able to use standard function to operate numbers to compose a program   
   ➢ Students are able to use standard function to handle string to compose a program  
7. Essential Concepts : STANDARD FUNCTIONS  
8. Learning Activity : 7  

<table>
<thead>
<tr>
<th>Component</th>
<th>Detail Activity</th>
<th>Time</th>
<th>Method</th>
<th>Media</th>
<th>References</th>
<th>Character</th>
</tr>
</thead>
</table>
| Opening     | Lecturer opens the class and asks students to recall some important points of the previous topic  
Lecturer asks students to prepare their presentation of today's topic  
Students get opportunity to present their assignment of the topic  
Other students give their opinion of the presentation  
Some other groups of students get their turn to present their idea in front of class, and others give their comments  
Lecturer facilitates students to get the main idea of the topic | 5’   | Explanation and Discussion  
Demonstration, Discussion, practice, group work | Computer, LCD | A:17-20, B.3 | Thinking logically, critically, creatively, and innovatively  
Caring about social matters and environment |
| Main Activities |                                                                                   | 75’  |                             |             |            |                                                                           |
| Closure     | Student and lecturer conclude the entire materials                               | 10’  |                             |             |            |                                                                           |
| Follow up   | Lecturer describes the                                                           | 10’  |                             |             |            |                                                                           |
Learning Activity : 8 (practice, 1 sks practice = 100’)

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</thead>
<tbody>
<tr>
<td>Opening</td>
<td>Lecturer reviews of some important point in the topic</td>
<td>5’</td>
<td>Explanation and Discussion</td>
<td>Computer, worksheet</td>
<td>worksheet / quiz</td>
<td>Thinking logically, critically, creatively, and innovatively</td>
</tr>
<tr>
<td>Main Activities</td>
<td>Students practice and do exercises to compose a program in standard function to solve some problems</td>
<td>80’</td>
<td>Practice, by self/in a group</td>
<td>worksheet / quiz</td>
<td></td>
<td>Caring about social matters and environment</td>
</tr>
<tr>
<td>Closure</td>
<td>Lecturer gives feedback to the result of students’ work</td>
<td>10’</td>
<td>Explanation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow up</td>
<td>Students are supposed to read the next material in handout and explore the Internet</td>
<td>5’</td>
<td>Explanation</td>
<td></td>
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</tr>
</tbody>
</table>

9. Assessment
Write down a program to find the root of quadratic equation using ABC formula. Identify, what kind of standard function must you use in the program?

10. References
A. Compulsory :

B. Additional

Yogyakarta, 23 August 2010
Lecturer,

Sri Andayani, M.Kom
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