MAT203  Calculus II

As a result of home and classroom study, the students at the termination of this course will demonstrate the following knowledge and skills:

<table>
<thead>
<tr>
<th>OUTCOMES</th>
<th>ACTIVITIES</th>
<th>ASSESSMENT</th>
</tr>
</thead>
</table>
| Find areas under a curve by graphical, numerical, and analytic methods | 1. Approximate the area under a curve using upper and lower sums.  
2. Evaluate definite integrals using the limit definition.  
3. Use the graph of a function to find the anti-derivative of that function.  
4. Approximate the value of a definite integral using the midpoint rule, the trapezoidal rule, and Simpson’s rule using programs on the graphing calculator.  
2. In-class problems.  
3. In-class tests. |
| Find the anti-derivative of a function given by a formula | 1. Use the Fundamental Theorem of Calculus to evaluate definite integrals and calculate area.  
2. Use the power, product, quotient, and chain rules.  
3. Evaluate integrals using change of variable and substitution.  
2. In-class problems.  
3. In-class tests. |
2. In-class problems.  
3. In-class tests. |
| Find volumes of solids of revolution by integration | 1. By slicing into simple volumes | 1. Hand-in assignments.  
2. In-class problems.  
3. In-class tests. |