<table>
<thead>
<tr>
<th>Course Number Course Name</th>
<th>Math 151 Conceptual Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Value (Breakdown of theory and lab credits)</td>
<td>3 Theory</td>
</tr>
<tr>
<td>Catalog Course Description</td>
<td>This course is a survey of mathematical topics. It emphasizes general problem solving skills and applications of mathematics in various disciplines. The topics that will be covered include evolution of number systems, basic geometry, and probability. Prerequisite: MATH 129 or MATH 130L or MATH 130. (3, 3T+0S)</td>
</tr>
</tbody>
</table>
| Student Learning Outcomes/Objectives /Competencies of the Course | **Student Learning Outcomes:** At the end of this course the student will be able to:  
1. Use number system with different bases and discuss their historical origins.  
2. Construct and analyze graphs and/or data sets.  
   a. Gather and organize information.  
   b. Understand the purpose and use of various graphical representations such as tables, line graphs, tilings, networks, bar graphs, etc.  
   c. Interpret results through graphs, lists, tables, sequences, etc.  
   d. Draw conclusions from data or various graphical representations.  
3. Use and solve various kinds of equations. Create and apply algebraic models.  
   a. Understand the purpose of and use appropriate formulas within a mathematical application.  
   b. Solve equations within a mathematical application.  
   c. Check answers to problems and determine the reasonableness of results.  
4. Understand and write mathematical explanations using appropriate definitions and symbols.  
   a. Translate mathematical information into symbolic form.  
   b. Define mathematical concepts in the student’s own words.  
   c. Use basic mathematical skills to solve problems.  
5. Demonstrate problem solving skills within the context of mathematical applications.  
   a. Show an understanding of a mathematical application both orally and in writing.  
   b. Choose an effective strategy to solve a problem.  
   c. Gather and organize relevant information for a given application. |
| College-Wide Student Learning Outcomes | Math 151 learning objectives align with the following NNMC College Wide Goal:  
*Critical thought:*  
• *Students are required to analyze and synthesize information and draw reasoned conclusions.*