



<b>Course Number</b>	Math 4466 Mathematical Methods in Science and Engineering
<b>Course Name</b>	
<b>Credit Value (Breakdown of theory and lab credits)</b>	3 Theory
<b>Catalog Course Description</b>	The course will cover special functions, tensor algebra, calculus of variations, integral equations, difference equations, and mathematical methods for solving differential equations. Prerequisites: MATH 3312, 3316. (3, 3T+0S)
<b>Course Student Learning Outcomes/Objectives /Competencies of the Course</b>	<p><b>Student Learning Outcomes:</b> At the end of this course the student will be learn:</p> <ol style="list-style-type: none"> <li>1. Special functions</li> <li>2. Tensor algebra</li> <li>3. Calculus of variations</li> <li>4. Integral equations</li> <li>5. Difference equations Iterative methods of solving linear equations</li> <li>6. Methods of solving differential equations</li> </ol>
<b>College-Wide Student Learning Outcomes</b>	<p>Math 4466 exposes students to the following NNMCC College Wide Goals:</p> <p><i>Critical thought: Students are required to analyze and synthesize information and draw reasoned conclusions.</i></p> <p><i>Quantitative reasoning: Calculate, represent, apply, analyze, and communicate both quantitative and qualitative information.</i></p>
<b>Program Student Learning Outcomes measured</b>	PSLO #3: Use linear algebra and matrices, vector analysis, ordinary differential equations, partial differential equations, or complex analysis to solve real world problems.