



Course Number	Math 3327 Discrete Structures
Course Name	
Credit Value (Breakdown of theory and lab credits)	3 Theory
Catalog Course Description	The course will emphasize principles of discrete math, including mathematical logic, inductive and deductive reasoning, recursive methods, as well as concepts involving discrete structures and their connections to problems in science, technology, and engineering. Prerequisite: MATH 1520. (3, 3T+0L)
Course Student Learning Outcomes/Objectives /Competencies of the Course	<p>Student Learning Outcomes: At the end of this course the student will be understand:</p> <ol style="list-style-type: none"> 1. Apply the principles of mathematical logic and valid arguments to solve real- world problems. 2. Read and write different types of mathematical proofs: direct proof, proof by contradiction, proof by cases, or by mathematical induction. 3. Perform operations on discrete mathematical structures, such as sets and relations. 4. Understand the concept of recursion and its relationship to the principle of mathematical induction. 5. Solve problems involving recurrence relations and generating functions. 6. Solve real-world problems using counting techniques and combinatorics. 7. Apply graph theory to solve real world problems.
College-Wide Student Learning Outcomes	<p>Math 3327 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>
Program Student Learning Outcomes measured	PSLO #5: Construct proofs to verify a mathematical assertion.