APPROVED
COMMISSION ON UNDERGRADUATE STUDIES AND POLICIES

College of Science, Department of Mathematics
Bachelor of Science in Mathematics, **Applied Discrete Mathematics Option**
For students graduating in calendar year **2021**

I. Curriculum for Liberal Education (CLE) Requirements (38 credits)

Area 1: Writing and Discourse (6 credits).

	3			3	

Area 2: Ideas, Cultural Traditions, and Values (6 credits).

	3			3	

Area 3: Society and Human Behavior (6 credits).

	3			3	

Area 4: Scientific Reasoning and Discovery (6 credits).

	3			3	

Area 5: Quantitative and Symbolic Reasoning (8 credits).

MATH 1225 Calculus of a Single Variable	4		MATH 1226 Calculus of a Single Variable	4	

Area 6: Creativity and Aesthetic Experience (3 credits)

	3	

Area 7: Critical Issues in a Global Context (3 credits).

	3	

II. Mathematics Bachelor of Science Core Courses (21 credits)

MATH 2114: Introduction to Linear Algebra*	3	
MATH 2204: Introduction to Multivariable Calculus*	3	
MATH 2214: Introduction to Differential Equations*	3	
MATH 3034: Introduction to Proofs*	3	
MATH 3144: Linear Algebra I*	3	
MATH 3224: Advanced Calculus*	3	
Computer Programming (MATH 1454 or 3054 or CS 1044 or 1054 or 1114#)	3	

#CS 1114 is a prerequisite for CS 2114 (a required course for the ADM option.)

III. Required Courses Specific to the Applied Discrete Mathematics Option (27 credits)

Mathematics

MATH 3124: Modern Algebra*	3	
MATH 3134: Applied Combinatorics*	3	
MATH 3214: Calculus of Several Variables*	3	
MATH 4134: Number Theory*	3	

*Some courses listed on this checksheet may have prerequisites and/or corequisites; please consult the University Course Catalog or check with your advisor.

Computer Science and Statistics

CS 2114: Software Design and Data Structures#*	3	
CS 2505: Introduction to Computer Organization*	3	
CS 3114: Data Structures and Algorithms*	3	
CS 4104: Data and Algorithm Analysis*	3	
STAT 4714: Probability and Statistics for Electrical Engineers*	3	

#CS 1114 (which can be used to satisfy a Core requirement) is a prerequisite to CS 2114.

*Some courses listed on this checksheet may have prerequisites and/or corequisites; please consult the University Course Catalog or check with your advisor.

IV. Restricted Electives (9 credits)

4000-level Math

	3	
	3	

	3	

1) At least one course from MATH 4124, 4144, 4175, 4176, 5144 must be included
2) At most one of MATH 4044 and 4334 is allowed
3) At most one of MATH 4425 and 4564 is allowed
4) MATH 4574, 4625, 4626,4644, 4654, and 4664 may not be used.
5) Students must petition the Associate Chair to use MATH 4974, 4984, or 4994
6) Courses that do not count toward the in-major GPA may not be used

V. Free Electives (sufficient to achieve the 120-credit graduation requirement)

VI. Outcomes Assessment

Each student is required to participate in the department's Outcomes Assessment procedures as determined by each year's Undergraduate Program Committee and approved by the Head.

VII. Minimum Credits, GPA, and In-Major GPA Required for Graduation

At least 120 credits required. Students are required to have at least a 2.0 GPA and a 2.0 in-major GPA for Graduation. In-major GPA for this option is computed using all MATH courses with the exception of MATH 1014, 1015, 1016, 1025, 1026, 1524, 1525, 1526, 1535, 1536, 1614, 1624, 2015, 2016, 2024, 2025, 2025, 2534, 2644, 3624, 4574,4625, 4626, 4644, 4654, 4664.

VIII. Foreign Language Requirement

Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six credits of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward the credits required for graduation. Please consult the Undergraduate Catalog for details.

IX. Satisfactory Progress to Degree

Upon having attempted 36 semester credits, the student must have completed 12 credits of the University Curriculum for Liberal Education. Upon having attempted 72 credits (including transfer, advanced placement, advanced standing, credit by examination and course withdrawal), the student must have completed 24 credits of the University Curriculum for Liberal Education. In addition, satisfactory progress toward the B.S. in Mathematics requires that:

1. Within the previous two semesters, the student must pass at least one mathematics course that is used in the in-major GPA calculation.
2. Upon having attempted 45 semester credits, students must have an in-major GPA of 2.2 or above.
3. Upon having attempted 72 semester credits (including transfer, advanced placement, advanced standing, credit by examination, course withdrawal), students must have completed the following courses with grades of C- or better: Math 1225, 1226, 2114, 2204, 2214, and 3034, and not have taken any of these courses more than twice, including attempts ending in course withdrawal.