

Sample Program of Study
Mathematics Major – Discrete Mathematics/Operations Research option
(BA)

(with minor using 21 credits¹)

First Year

First Semester		Second Semester	
Math 181 (Calculus I)	4 credits	Math 182 (Calculus II)	4 credits
English 101	3 credits	English 102	3 credits
Natural Science core	3 credits	Natural Science core	3 credits
Foreign Language (semester 1)	3 credits	Foreign Language (semester 2)	3 credits
Minor course	3 credits	Minor course	3 credits

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Second Year

First Semester		Second Semester	
Math 283 (Calculus III)	4 credits	Math 285 ² (Differential Equations)	3 credits
Minor course	3 credits	Fine Arts core	3 credits
CH 201	3 credits	CH 202	3 credits
Social Science core	3 credits	2 nd Social Science course	3 credits
Foreign Language (semester 3)	3 credits	Foreign Language (semester 4)	3 credits

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Third Year

First Semester		Second Semester	
Math 310 (Introduction to Analysis I) ³	3 credits	Math 311 ² (Introduction to Analysis II)	3 credits
Math 330 (Linear Algebra)	3 credits	Math 485/486/487 ⁴	3 credits
CH 203	3 credits	Diversity core	3 credits
Minor course	3 credits	Minor course	3 credits
Elective	3 credits	Elective	3 credits

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Fourth Year

First Semester		Second Semester	
Math/Stat 461 (Probability Theory)	3 credits	Math 420 (Mathematical Modeling -- capstone)	3 credits
Math 485/486/487 ⁴	3 credits	Math 485/486/487 ⁴	3 credits
General capstone course	3 credits	Humanities course	3 credits

Math Elective ⁵	3 credits Minor course	3 credits
Minor course	3 credits Electives	5 credits
Elective	3 credits	
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Total		128 credits

Notes:

1. We assume a minor using 21 credits (7 three-credit courses, e.g. Art, Accounting, or History). If a student's minor requires less, electives may be substitute for the difference.
2. Students who are preparing for secondary school teaching may substitute two of the three courses: Math 373, 474, 475 for Math 285 and 311.
3. Some students might find it advantageous to take MATH 373 before taking MATH 310.
4. Math 485 (Combinatorics and Graph Theory), 486 (Game Theory), and 487 (Deterministic Operations Research) are offered on a three-semester rotation; students can take whichever of the three courses is available in the given semester.
5. This elective may be any MATH or STAT course numbered 300 and above.