

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

(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
Computer Science 135	3 credits	Computer Science 202	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 (Differential Equations)	3 credits
Minor course	3 credits	Minor course	3 credits
CH 201	3 credits	CH 202	3 credits
Social Science core	3 credits	CH 203	3 credits
Diversity core	3 credits	Fine Arts core	3 credits

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Third Year

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

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Fourth Year

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

Minor course	3 credits	Minor course	3 credits
General capstone 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. Some students might find it advantageous to take MATH 373 before taking MATH 310.
3. 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.
4. This elective must be a course numbered 300 or above, which is related to discrete math/operations research. Some courses from outside the MATH/STAT Department may count. For a list of such courses, please consult an advisor from the Math/Stat department.