RAMAPO COLLEGE OF NEW JERSEY

School of Theoretical and Applied Science

Mathematics

Recommended Four-Year Plan (Fall 2020)

The recommended four-year plan is designed to provide a blueprint for students to complete their degrees within four years. These plans are the recommended sequences of courses. Students must meet with their Major Advisor to develop a more individualized plan to complete their degree. This plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which are not listed in the plan.

NOTE: This recommended Four-Year Plan is applicable to students admitted into the major during the 2020-2021 academic year.

First Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
Gen Ed Quantitative Reasoning: MATH 121 - Calculus I *	4		CMPS 130 - Sci Problem Solving with Python or CMPS 147 – Computer Science I	4	
Gen Ed: INTD 101 - First Year Seminar	4		Gen Ed: Historical Perspectives	4	
Gen Ed: CRWT 102 - Critical Reading & Writing II	4		MATH 237 - Discrete Structures WI OR MATH 205 - Mathematical Structures WI	4	
Gen Ed: SOSC 110 - Social Science Inquiry	4		MATH 122 - Calculus II	4	
			Career Pathways: SCIN 001 – Career Pathways Module 1	Degree Rqmt.	
Total:	16		**Total:**	16	

Second Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
MATH 225 - Multivariable Calculus	4		MATH 305 – Differential Equations	4	
MATH 262 - Linear Algebra WI	4		MATH Elective numbered above 237	4	
PHYS 116 - Physics I w/ Calculus Lecture and PHYS 116L - Introductory Physics I Lab	4+1		Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics	4	
Gen Ed: AIID 201 - Studies in the Arts & Humanities	4		Gen Ed: Global Awareness	4	
Career Pathways: SCIN 002 – Career Pathways Module 2	Degree Rqmt.		Career Pathways: SCIN 003 – Career Pathways Module 3	Degree Rqmt.	
Total:	17		**Total:**	16	

Third Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
MATH 432 - Abstract Algebra WI	4		MATH 416 - Introduction to Analysis	4	
MATH Elective 300 Level or Above (possibly Math 353 **)	4		MATH Elective 300 Level or Above	4	
MATH Elective numbered above 237	4		Elective	4	
Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics	4		Elective	4	
Total:	16		**Total:**	16	

Fourth Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
MATH 441 - History of Math WI	4		Elective	4	
Elective	4		Elective	4	

Elective	4		Elective	4	
Elective	4		Elective ***	3	
Total:	**16**		**Total:**	**15**	

Total Credits Required: 128 credits
Major GPA required for graduation: 2.0
WI: Writing Intensive - 3 courses required in the major.

* See the course catalog for prerequisites for Calculus I. One of the ways to enter Calculus I is to place into it via the Calculus Placement Test called Accuplacer Advanced Algebra and Functions Test (AAF Test) at the RCNJ Testing Center. The Testing Center is open all year round. If the placement test results for a given student indicate that developmental courses are required (for instance, Precalculus, or Elementary Algebra Topics followed by Precalculus), such developmental courses may be taken as early as during the summer session(s) preceding the student's freshman year [Summer Session I (late May – late June) or Summer Session II (mid July – mid August)]. See the RCNJ Testing Center website for more details on the Calculus Placement Test.

Those mathematics majors who end up taking Precalculus, which is a 4-credit-hour course counting towards graduation credits, can count it as, for instance, the 4 HR Elective in the Fourth Year Spring in the table above.

** If a student wishes to take a statistics course to fulfill one of their "MATH Elective Level 300 or Above" requirements, the student is advised to take exactly one of the following: Math 353 Statistics OR Math 370 Applied Statistics, but not both. If a student takes both of these two courses, then the one taken earlier will count as a "MATH Elective Level 300 or Above" requirement, but the one taken later will be counted as a general elective, and not as a "Math elective Level 300 or above". Similarly, if a student first takes MATH 237 and later takes MATH 205, then MATH 205 will not count as a math elective, but as a general elective.

*** If a 3 credit hour elective cannot be found in the schedule, it may be replaced by an elective (or a combination of electives) worth at least 3 credits hours total.