RAMAPO COLLEGE OF NEW JERSEY

School of Science, Nursing, and Health

Mathematics, Teacher Education Concentration

Recommended Graduation Plan (Fall 2026)

The recommended graduation plan is designed to provide a blueprint for students to complete their degrees on time. These plans are the recommended sequences of courses. Students must meet with their Academic Advisor to develop a more individualized plan to complete their degree.

NOTE: This recommended Graduation Plan is applicable to students admitted into the major during the 2026-2027 academic year.

Items labeled [1] through [9] are explained in the footnotes on the bottom of this file.

CRWT Placement
CRWT 101 to CRWT 102
CRWT 101S to CRWT 102S

Math Placement
MATH 021/ 022 to MATH 024 to MATH 110 to MATH 121 MATH 021/022 to MATH 101-108

NOTE: CRWT and MATH courses are determined by placement testing and should be taken following the sequence above.

First Year [2]					
Fall Semester F25	**HRS**	**✓**	**Spring Semester S26**	**HRS**	**✓**
Gen Ed: INTD 101 - First Year Seminar	4		CMPS 130 - Scientific Problem Solving with Python OR CMPS 147 - Computer Science I	4	
Gen Ed: CRWT 102 - Critical Reading and Writing II	4		General Education Requirement	4	
Gen Ed: Quantitative Reasoning - MATH 121 - Calculus I [1] [8]	4		MATH 237 - Discrete Structures WI OR MATH 205 - Mathematical Structures WI	4	
General Education Requirement [3]	4		MATH 122 - Calculus II	4	
			TAS Pathways Module 1: (PATH-001) Career Assessment/ Advising	**Degree Rqmt.**	
Total:	16		**Total:**	16	

Summer Session (both online) [3]	**HRS**	**✓**
Certification Requirement: Health and Hygiene Test (state Physiology/Hygiene requirement) [7]	0	
General Education Requirement	4	
General Education Requirement	4	

Second Year [4]					
Fall Semester F26	**HRS**	**✓**	**Spring Semester S27**	**HRS**	**✓**

EDUC 211 - Student Literacy Corps CE1 (Urban)	4		Certification Requirement & Gen Ed Values and Ethics: EDUC 221 - Social Context of Education	4	
MATH 225 - Multivariable Calculus	4		MATH 253 - Probability	4	
MATH 262 - Linear Algebra **WI**	4		MATH 282 - Number Theory	4	
Gen Ed Scientific Reasoning and Math Major Requirement: PHYS 116 - Physics I w/ Calculus Lecture and PHYS 116L - Introductory Physics I Lab	4+1		Certification Requirement & Gen Ed Systems Sustainability and Society: EDUC 241 - Instructional Technology	4	
TAS Pathways Module 2: (PATH-002) Resume/CV Writing	**Degree Rqmt.**		TAS Pathways Module 3: (PATH-003) Interview Preparation	**Degree Rqmt.**	
Total:	17		**Total:**	16	

Third Year					
Fall Semester F27	**HRS**	✓	**Spring Semester S28**	**HRS**	✓
Certification Requirement: EDUC 222 - Teaching: Principles and Practices CE2	4		Certification Requirement: EDUC 360 - Introduction to Special Education CE3 EDUC 301 - Meeting the Needs of All Learners **(co-req.)**	4	
PSYC 101 - Introduction to Psychology	4		Certification Requirement: PSYC 215 - Learning, Cognition, & Teaching	4	
MATH 416 - Introduction to Analysis	4		MATH Elective numbered above 237 (not MATH 370 – Applied Statistics)	4	
MATH 353 – Statistics	4		MATH 321 - Geometry	4	
Total:	16		**Total:**	16	

Fourth Year					
Fall Semester: EDUC courses are Co-Requisites. F27	**HRS**	✓	**Spring Semester S28**	**HRS**	✓
Certification Requirement: EDUC 310 - Methods in Content Areas: Math/Science CP1 [5]	4		**Certification Requirement:** EDUC 495 - Clinical Practice Capstone: Content CP3 [6]	12	
Certification Requirement: EDUC 350 - Reading and Writing in the Content Areas CP2 [5]	4				
MATH 432 - Abstract Algebra **WI**	4				

MATH 441 - History of Math **WI**	4				
Strongly Suggested: EDUC 395: Topics [9]	2				
Total:	16 [9]		**Total:**	12	

Total Credits Required for Graduation: 128
Total Credits in This Plan: 133 [9]
Major GPA Required for Graduation: 2.0
CUM GPA Required for Certification AT TIME OF GRADUATION/DEGREE COMPLETION: 3.0
WI: Writing Intensive - 3 courses required in the major

General Education courses can be done in any order with the exception of INTD 101, CRWT and MATH. Those three general education courses will need to be done first. First Year Seminar is taken in the first semester. Failure to complete CRWT and MATH will result in a hold when the student hits 64 credits. The following general education courses can be done in any order. For more info on these courses, please visit the General Education program requirements website in the College Catalog:

- Social Science Inquiry (SOSC 110) *[+W]*
- Scientific Reasoning
- Historical Perspectives *[+W]*
- Studies in the Arts & Humanities (*CRWT 102 is a prerequisite to this course*) *[+W]*
- Global Awareness *[+W]*
- Distribution Category (Social Systems and Society **OR** Culture & Creativity **OR** Values and Ethics)
- Distribution Category (Social Systems and Society **OR** Culture & Creativity **OR** Values and Ethics)

+W: Students transferring in with 48 or more credits are waived from these general education requirements.

Important Footnotes explaining items [1] – [9] from the tables above:

[1] See the course catalog for prerequisites for Calculus I. One of the ways to enter Calculus I is to place into it via the Accuplacer 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.

A student who places into Precalculus and takes it freshman fall and wishes to "catch up" with their math sequence, may take Calculus I with Discrete Structures during their freshman spring, and Calculus II during the summer after the freshman year.

[2] Ideally, native Ramapo students should be fully admitted into the Teacher Education (TE) program **by the end of their first year at Ramapo.Transfer students should be directed to the TE Program office immediately upon their arrival on campus**, and earlier if possible. All students should be directed early to the TE program for admissions requirements.

Students will complete Clinical Experience (CE) and Clinical Practice (CP) courses during the time in the Teacher Education Program. It is recommended that students complete EDUC 211 and EDUC 222, both of which require CE, in different semesters.

[3] Students planning to take gen ed courses in the summer after their freshman year, should take during their freshman year two gen ed courses that are not offered in the summer, and should save the gen ed courses that are offered online during the summer to take them online in the summer after their freshman year.

Any of the courses listed in summer sessions on this plan may be taken in any regular academic semester (fall and/or spring), even as an overload, to maximize tuition dollars. Individual plans for/time to graduation should be developed with your major and TE

advisors. It might be possible to take all courses that are listed during the summer sessions above in an online format, for instance, Gen Ed: SOSC 110 and Gen Ed: Global Awareness courses are often offered in an online format during the summer

[4] Students **must be fully admitted** into TE program before registering for EDUC 222, which on this plan is presented **in the absolute last semester** in which a student could take it **and expect to complete both the major and certification requirements within 4 years**. Please see faculty or staff in the Teacher Education Program for admission requirements and appropriate timing/planning. This course is a prerequisite to EDUC 360, which is a prerequisite to EDUC 310 and 350, which are co-requisites.

[5] **Only offered fall semester. EDUC 310 and EDUC 350 are co-requisites and must be taken the semester prior to Clinical Practice Capstone to meet state mandates for a full year of Clinical Practice.**

[6] **Only offered spring semester.** No other course may be taken with this course.

Clinical Experience Hours Required:
[CE1]EDUC 211 – 10 hours
[CE2]EDUC 222 – 20 hours
[CE3]EDUC 360 – 60 hours
Clinical Practice Hours Required:
[CP1]EDUC 310—170 hours
[CP2]EDUC 350—10 hours
[CP3]EDUC 4XX—525 hours

PLEASE NOTE:

Transportation to and from off-campus clinical experience and clinical practice placements (in K-12 schools) is the responsibility of individual students. Please plan accordingly. If transportation is or may be an issue, please visit the TE program offices BEFORE you register for a course which requires a K-12/off campus school placement.

[7] Health and Hygiene Test is recommended in lieu of taking BIOL 101- Intro to Biology. See the Teacher Education program certification officer for the test details.

[8] A student following a Graduation Plan that starts in the fall of an even year (such as Fall 2024, Fall 2026, etc.) wishing to follow a more accelerated schedule of math courses, should start their math course sequence as follows:

Take Discrete Structures with Calculus I their freshman fall (and move the gen ed course from freshman fall to take it as an online course the summer after the sophomore year), take Linear Algebra with Calculus II their freshman spring, take the 400 level Abstract Algebra with Multivariable Calculus their sophomore fall. Then, in the fall of the senior year there will be only 12 credits to complete (by taking abstract algebra in the fall of the sophomore year), making the senior fall semester a lot easier.

A student following a Graduation Plan that starts in the fall of an odd year (such as Fall 2025, Fall 2027, etc.) wishing to follow a more accelerated schedule of math courses, should start their math course sequence as follows:

Take Discrete Structures with Calculus I their freshman fall (and move the gen ed course from freshman fall to take it as an online course the summer after the sophomore year), take Probability with Calculus II their freshman spring, take the 300 level Statistics with Multivariable Calculus their sophomore fall, take Linear Algebra together with Geometry their sophomore spring. Then, in the fall of the senior year there will be only 12 credits to complete (by taking statistics the fall of the sophomore year), making the senior fall semester a lot easier.

[9] EDUC 395 is not required, but it's strongly suggested. It's a seminar whose role is to support students in CP1 and CP2. Any full time student (i.e. a student taking between 12 and 18 credits in one semester) pays a flat rate "full time" tuition, so students who take EDUC 395 in addition to 4 other 4-credit classes in the same semester will take 18 credits, but will pay the flat rate "full time" tuition that semester. Students who take EDUC 395 will graduate with 135, not 133 credits.

Important Note:

The following important math courses run once every two years:

Number Theory: will be offered in spring of even years: S26, S28, S30, etc.
Geometry: will be offered in spring of odd years: S27, S29, etc.

Statistics: will be offered in fall of even years: F24, F26, F28, etc.
Analysis: will be offered in fall of even years: F26, F28, F30, etc.

History of Math: will be offered in fall of odd years: F25, F27, F29, etc.
Abstract Algebra: will be offered in fall of odd years: F25, F27, F29, etc.

If you plan on taking any of these six important courses listed above that run once every two years (or if you are required to take any of them), then the following sequencing of these courses is recommended due to the fact that they run once every two years:

If you first became a student at Ramapo College in the academic year whose fall semester is an even year (for example, if you started in Fall 2024 or Spring 2025), then plan for:

Spring of Sophomore Year:
- Number Theory

Spring of Junior Year:
- Geometry

Fall of Junior Year:
- Statistics
- Analysis

Fall of Senior Year:
- Abstract Algebra
- History of Mathematics

If you first became a student at Ramapo College in the academic year whose fall semester is an odd year (for example, if you started in Fall 2025 or Spring 2026), then plan for:

Spring of Sophomore Year:
- Geometry

Spring of Junior Year:
- Number Theory

Fall of Junior Year:
- Abstract Algebra
- History of Mathematics

Fall of Senior Year:
- Statistics
- Analysis