

Academic Rhode Map for BA Mathematics Major at Rhode Island College

- This Rhode Map is a suggested pathway to graduation in 8 semesters
 - There are other valid pathways available to graduation - part time, summer/early spring classes, etc.
- The left column contains the suggested courses for each semester, the right column contains notes for the course and about progress towards graduation
- Some courses might not be offered during the semester shown on the map
 - In these cases, courses listed in future semesters can be substituted if their prerequisites have been satisfied
 - Your advisor can help you determine which courses can be used during your appointment each semester
- This Rhode Map is designed primarily with incoming freshmen in mind and assumes a Fall start
 - Transfer students can also use it as a guide, knowing that their transfer credits may have satisfied some requirements. Academic advisors are available to answer questions about how these will affect the program
 - Students starting in the spring may need to adjust based on class offerings and availability

GENERAL EDUCATION REQUIREMENTS CHECKLIST			
FYW 100 – Taken in first year (Cannot be used as elective)	Distribution Courses - One from each category		Math (M) - Suggested in first year - Satisfied by MATH 212
FYS 100 – Taken in first year (Cannot be used as elective)		Arts (A)	
Connections – Taken after FYW & FYS		History/Philosophy (HP)	
		Literature/Language (LL)	
		Natural Science (NS)	
		Social & Behavioral Sciences (SB)	
		Elective(s) for 40 total Gen Ed credits (E)	

MAJOR REQUIREMENTS CHECKLIST			
MATH 212 Calculus I			MATH 314 Calculus III
MATH 213 Calculus II		MATH 315 Linear Algebra (F)	
MATH 300W Bridge to Advanced Mathematics (Sp)		MATH 411 Advanced Calculus (F odd yrs)	
MATH 314 Calculus III			
Choose THREE from: DATA 345 Applied Linear Algebra for Statistical Learning DATA 445 Advanced Statistical Methods (Sp) MATH 416 Ordinary Differential Equations (Sp)		MATH 417 Introduction to Numerical Analysis (Sp) MATH 431 Number Theory MATH 436 Discrete Mathematics (Sp)	
Cognate			
Choose ONE from: CSCI 157 Introduction to Algorithmic Thinking in Python CHEM 103 General Chemistry I ECON 214 Principles of Microeconomics ECON 215 Principles of Macroeconomics		MATH 240 Statistical Methods I MATH 248 Business Statistics PHIL 205W Introduction to Logic PHYS 101 Physics for Science and Mathematics I	

Graduation Requirements:

- **Completion of General Education Requirements** – See table above
- **Completion of Major Requirements** — See table above
- **RIC 100 or Equivalent** — Taken in first year
- **College Math Milestone** — Satisfied by placement exam or completion of MATH 010
- **College Writing Competency** — Satisfied by FYW 100 with a minimum grade of C
- **Minimum 120 Credit Hours** — At least 30 credits at RIC (of which 15 from major, including 12 at 300 or 400 level)
- **Minimum GPA** - 2.0 overall

The total credit count for the major is 49-52 credits, and 40 credits for General Education. However, 8 Gen. Ed. credits for M and Elective can double count, so the program can be completed in 81-84 credits.

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SEMESTER 1	CR	SEMESTER 1 NOTES
FYW 100 First Year Writing OR FYS 100 First Year Seminar	4	FYW Directed Self Placement exam
RIC 100 Introduction to Rhode Island College	1	Exempt if taking COLL 101, COLL 150, or HONR 150
MATH 212 Calculus I	4	Prereq = MATH 209 or appropriate score on the Mathematics Placement Exam May need to take MATH 209 here and push MATH 213 Calculus II and MATH 314 Calculus III back one semester Satisfies Gen Ed Math (M)
General Education Course (Any still needed)	3-4	PHYS 101 or CHEM 103 can double-count for NS Gen Ed and major requirement
General Education Course (Any still needed)	3-4	
Requirements and GPA		<i>Aim for 16 earned credits (While 12 is fulltime, 16 credits are preferred to stay on track to graduate in 4 years) . Math competency completed. Minimum 2.0 GPA</i>
# CREDITS EARNED	15 -17	<i>By October, make appointment with advisor to discuss your schedule for next semester</i>

SEMESTER 2	CR	SEMESTER 2 NOTES
FYW 100 First Year Writing OR FYS 100 First Year Seminar	4	
MATH 213 Calculus II	4	Prereq = MATH 212
General Education Course (Any still needed)	3-4	
General Education Course (Any still needed)	3-4	
Requirements and GPA		<i>Aim for minimum of 32 earned credits, with minimum of 2.0 GPA overall and in the major</i>
# CREDITS EARNED	14-16	<i>By March, make appointment with advisor to discuss your schedule for next semester</i>

SEMESTER 3	CR	SEMESTER 3 NOTES
ONE from: CSCI 157 Introduction to Algorithmic Thinking in Python CHEM 103 General Chemistry I ECON 214 Principles of Microeconomics ECON 215 Principles of Macroeconomics MATH 240 Statistical Methods I MATH 248 Business Statistics PHIL 205W Introduction to Logic PHYS 101 Physics for Science and Mathematics or Gen Ed, elective, or course toward minor/major	3-4	Prereqs vary—see catalog. PHYS 101 or CHEM 103 satisfy Gen Ed Natural Science (NS)
MATH 314 Calculus III	4	Prereq = MATH 213
Gen Ed. (if needed), elective, or course toward minor/major	3-4	
Gen Ed. (if needed), elective, or course toward minor/major	3-4	
Requirements and GPA		<i>Aim for minimum of 48 earned credits, with minimum of 2.0 GPA overall and in the major</i>
# CREDITS EARNED	13 -16	<i>By October, make appointment with advisor to discuss your schedule for next semester and discuss second major or possible minor</i>

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SEMESTER 4	CR	SEMESTER 4 NOTES
ONE from DATA 345 Applied Linear Algebra for Statistical Learning DATA 445 Advanced Statistical Methods (Sp) MATH 416 Ordinary Differential Equations (Sp) MATH 417 Introduction to Numerical Analysis (Sp) MATH 431 Number Theory MATH 436 Discrete Mathematics (Sp)	3-4	Prereqs vary—see catalog. MATH 431 or MATH 436 are recommended from the electives list MATH 431 & MATH 436 prereq = MATH 212 Need THREE from this list
ONE from CSCI 157 Introduction to Algorithmic Thinking in Python CHEM 103 General Chemistry I ECON 214 Principles of Microeconomics ECON 215 Principles of Macroeconomics MATH 240 Statistical Methods I MATH 248 Business Statistics PHIL 205W Introduction to Logic PHYS 101 Physics for Science and Mathematics or Gen Ed, elective, or course toward minor/major	3-4	Prereqs vary—see catalog.
MATH 300W Bridge to Advanced Mathematics (Sp)	4	Prereq = MATH 212
Gen Ed. (if needed), elective, or course toward minor/major	3-4	
Requirements and GPA		<i>Aim for minimum of 64 earned credits, with minimum of 2.0 GPA overall and in the major</i>
# CREDITS EARNED	13 -16	<i>By March, make appointment with advisor to discuss your schedule for next semester</i>

SEMESTER 5	CR	SEMESTER 5 NOTES
MATH 411 Advanced Calculus (F odd yrs), elective, or course toward a minor	3-4	Prereq = MATH 213
MATH 315 Linear Algebra (F)	4	Prereq = MATH 300 or MATH 300W with a minimum grade of C
Gen Ed. (if needed), elective, or course toward minor/major	3-4	
Gen Ed. (if needed), elective, or course toward minor/major	3-4	
Requirements and GPA		<i>Aim for minimum of 80 earned credits, with minimum of 2.0 GPA overall and in the major</i>
# CREDITS EARNED	13 -16	<i>By October, make appointment with advisor to discuss your schedule for next semester</i>

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SEMESTER 6	CR	SEMESTER 6 NOTES
Gen Ed - Connections	4	Prereqs = FYW and FYS.
ONE from DATA 345 Applied Linear Algebra for Statistical Learning DATA 445 Advanced Statistical Methods (Sp) MATH 416 Ordinary Differential Equations (Sp) MATH 417 Introduction to Numerical Analysis (Sp) MATH 431 Number Theory MATH 436 Discrete Mathematics (Sp)	3-4	Prereqs vary—see catalog.
MATH 432 Introduction to Abstract Algebra (Sp)	4	Prereq = MATH 300 or MATH 300W and MATH 315. This course could also be taken in Semester 8
Gen Ed. (if needed), elective, or course toward minor/major	3-4	If pursuing minor or second major make sure you have registered for this with the relevant department prior to audit
Requirements and GPA		<i>Aim for minimum of 96 earned credits, with minimum of 2.0 GPA overall and in the major. If pursuing minor or second major make sure you have registered for this with the relevant department prior to audit. Apply for degree audit online through MyRIC</i>
# CREDITS EARNED	14 -16	<i>By March, make appointment with advisor to discuss your schedule for next semester</i>

SEMESTER 7	CR	SEMESTER 7 NOTES
MATH 411 Calculus IV (F odd yrs), elective, or course toward minor/major	3-4	Prereq = MATH 213. MATH 411 Completed
MATH 441 Introduction to Probability (F)	4	Prereq = MATH 314
Gen Ed. (if needed), elective, or course toward minor/major	3-4	
Elective or course toward minor/major	3-4	
Requirements and GPA		<i>Aim for minimum of 108 earned credits, with minimum of 2.0 GPA overall and in the major</i>
# CREDITS EARNED	13 -16	<i>By October, make appointment with advisor to discuss your schedule for next semester</i>

SEMESTER 8	CR	SEMESTER 8 NOTES
ONE from DATA 345 Applied Linear Algebra for Statistical Learning DATA 445 Advanced Statistical Methods (Sp) MATH 416 Ordinary Differential Equations (Sp) MATH 417 Introduction to Numerical Analysis (Sp) MATH 431 Number Theory MATH 436 Discrete Mathematics (Sp)	3-4	Prereqs vary—see catalog.
MATH 461W Seminar in Mathematics (Sp)	3	Prereqs = MATH 441 and prior or concurrent enrolment in MATH 432
Elective or course toward minor/major	3-4	
Elective or course toward minor/major	3-4	
Requirements and GPA		<i>Need minimum of 120 earned credits, with minimum of 2.0 GPA overall and in the major</i>
# CREDITS EARNED	12 -15	<i>Attend Gradfest and Commencement</i>

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F

NOTES:

- Students cannot count toward the major more than TWO courses with grades below C-
- The total number of credits needed for the major, general education, and other requirements may be less than the 120 required for graduation. Those remaining credits can be satisfied with electives, or they can be used toward a second major or minor which could be very useful.
 - Along with your advisor, this Rhode Map can help you determine if a second major or minor could fit into your plan

Acknowledged by Department Chair: Rebecca Sparks

Date: 12/30/2024

Approved by Undergraduate Curriculum Committee

Date: 11/8/2024

Revised: