The College of New Jersey Mathematics and Statistics Department 2023-2024 Academic Year

MATHEMATICS MAJOR: MATHEMATICS SPECIALIZATION

FRESHMAN YEAR

<u>Units</u>

4.5

Fall:	MAT 099	Orientation for Math/Stat Majors	0
	MAT 127	Calculus A (LL)	1
	CSC 220	Computer Science I (or CSC 250)	1
	FYW 102	First Year Writing ¹	1
		Second Language ²	<u>1</u>
			4
Spring:	MAT 128	Calculus B (LL)	1
	MAT 200	Discrete Mathematics	1
	FYS 16x	First Year Seminar	1
		Second Language ²	<u>1</u>
			4

SOPHOMORE YEAR

Fall:	MAT 229 MAT 205 	Multivariable Calculus Linear Algebra Science (LL) ³ Second Language ²	1 1 1 <u>1</u> 4
Spring:	MAT 310 MAT 275	Real Analysis Mathematics Option ⁴ Sophomore Seminar Liberal Learning (LL)	1 1 .5 2

JUNIOR YEAR

Fall:	MAT 305	Mathematics Option ⁴ Abstract Algebra Liberal Learning (LL)	1 1 <u>2</u> 4
Spring:		Mathematics Options ⁴	1
		Mathematics Options ⁴	1
		Liberal Learning (LL)	1
		Electives	<u>1</u>
			4

SENIOR YEAR

Fall:		Mathematics Options ⁴ Mathematics Options ⁴ Electives	$1 \\ 1 \\ \frac{2}{4}$
Spring:	MAT 498 	Capstone ⁵ Electives	1 <u>2.5</u> 3.5

TOTAL REQUIRED FOR GRADUATION:32 UNITS

NOTE: The official major requirements, including retention and graduation grade requirements, can be found in the Undergraduate Bulletin and on the department website.

¹ If you are exempted from FYW 102, you must take another writing intensive course in its place. However, some major courses or Liberal Learning courses you take may fulfill the writing requirement.

² If continuing in the same language as studied in high school, you must complete the language requirement at the 103 level or higher. Also, if you took three or more years of a language in high school and continue with this language and you are placed at the 101 level, then the 101 level course will NOT count towards the 32 units required for graduation.

³ See the department website for the list of possible courses.

⁴ Any MAT course at the 300/400 level (with advisement) or STA 410, with at least two 400-level MAT course units. The MAT 4xx courses must have a number between 400 and 480. One suitable science course (as indicated on PAWS) may count towards the 6 required course units of MAT 300/400 courses. Students can take at most one 300/400 level course unit of independent study, guided study, or independent research as one of the six course units, but this unit may only count as a 3xx course towards this requirement. Please note that when taking an independent study, guided study, or independent research course, a student's course load should not be more than 4.5 course units. Independent study, guided study, or independent research courses may not be taken in order to improve a grade, or to replace a course that a student failed to sign up for.

⁵ In their senior year, majors must complete the capstone experience. The capstone experience is concerned with oral and written communication of in-depth mathematics and serves as a summative experience for the Mathematics major.

Revised: June 14, 2023