# Cohort Analysis: Promoting English and Math Learning 

Facilitate successful student navigation through Gateway courses.

## March 2024

This research brief analyzes gateway English and math outcomes for the 903 Fall 2022 FirstTime Freshmen (both full-time and part-time). The analysis includes their attempt and completion rates in English and mathematics gateway courses from Fall 2022 through Summer 2023 and consists of both aggregated and disaggregated data across the course-taking and achievement patterns in these gateway courses, with the results outlined below. ${ }^{1}$

Goal 3, Strategy 1 of the Hostos Strategic Plan is Facilitate successful student navigation through Gateway courses, acknowledging the importance of gateway success in students' First Year. In addition to correlating strongly with retention, gateway completion ensures students gain competency in foundational skills applied across general education and degree-specific courses, in addition to supporting career preparedness.

The data are what OIERA is describing as "action-informing" - in addition to providing details about an important first-year milestone, analysis of gateway course enrollment and completion data can be used by SDEM and OAA to develop communication plans to students about (re)enrollment in gateway courses, seeking academic and other resources to support their success, and ultimately to improve gateway completion rates in students' first year at Hostos.

## Gateway English Paths to Completion

## All First-Time Freshmen Progress through ENG 110:

ENG 110 is the first course in the two-course ENG sequence required for all Hostos degrees. The following diagram aggregates the cumulative number and percent of unique students from the Fall 2022 cohort, from Fall 2022 through Fall 2023. The headings in the diagram are defined as follows:

- Those who enrolled in the first gateway English course are included in the "Attempted" count in the first semester they enroll (even if withdraw at some point).
- Those who successfully completed first English gateway course are included in the "Completed" count in the first semester in which they complete this course.
- The attempt and completion rates include both FT and PT (typically, analyses including PMP only include FT student outcomes).

[^0]| Fall 2022 | Spring 2023 | Summer 2023 | Fall 2023 |
| :--- | ---: | ---: | ---: |
| Attempted: | Attempted: | Attempted: | Attempted: |
| 671 (74\%) | $752(83 \%)$ | 757 (84\%) | 782 (87\%) |
|  |  |  |  |
| Completed: | Completed: | Completed: | Completed: |
| $360(40 \%)$ | $461(51 \%)$ | 466 (52\%) | 502 (56\%) |
|  |  |  |  |

All First-Time Freshmen Progress through ENG 110 by Placement:
The following diagram aggregates the cumulative number and percent of unique students from the Fall 22 cohort across the placement levels, from Fall 2022 through Fall 2023. The headings in the diagram are defined as follows:

- Those who enrolled in the first gateway English course are included in the "Attempted" count in the first semester they enroll (even if withdraw at some point)
- Those who successfully completed first English gateway course are included in the "Completed" count in the first semester in which they complete this course
- The attempt and completion rates include both FT and PT (typically, analyses including PMP only include FT student outcomes).
- "ESL" refers to credit-bearing ESL courses only (not pre-matriculation CLIP).
- "Coreq" refers to co-requisite ENG gateway courses (100 and 110/10).
- "College" refers to ENG 110, in which the majority of Hostos FTF place.



## All First-Time Freshmen Progress through ENG 111:

ENG 111 is the second course in the two-course ENG sequence required for all Hostos degrees.
The following diagram aggregates the cumulative number and percent of unique students from the Fall 2022 cohort, from Fall 2022 through Fall 2023. The headings in the diagram are defined as follows:

- Those who enrolled in the second gateway English course are included in the "Attempted" count in the first semester they enroll (even if withdraw at some point).
- Those who successfully completed the second English gateway course are included in the "Completed" count in the first semester in which they complete this course.
- Because ENG 111 is the second course in a two-course sequence, very few First Time Freshmen (<1\%) have completed the pre-requisite ENG 110 before matriculation at Hostos.
- The data strongly suggest that students delay attempting ENG 111, even taking into account $\sim 20 \%$ one-term and $40 \%$ one-year attrition.

| Fall 2022 | Spring 2023 | Summer 2023 | Fall 2023 |
| :--- | ---: | ---: | ---: |
| Attempted: | Attempted: | Attempted: | Attempted: |
| 3 (<1\%) | $325(36 \%)$ | $334(37 \%)$ | 421 (47\%) |
| Completed: | Completed: | Completed: | Completed: |
| $2(<1 \%)$ | $219(24 \%)$ | $227(25 \%)$ | 306 (34\%) |

## All First-Time Freshmen Progress through ENG 111 by Placement:

The following diagram aggregates the cumulative number and percent of unique students from the Fall 22 cohort across the placement levels, from Fall 2022 through Fall 2023. The headings in the diagram are defined as follows:

- Those who enrolled in the second gateway English course are included in the "Attempted" count in the first semester they enroll (even if withdraw at some point).
- Those who successfully completed the second English gateway course are included in the "Completed" count in the first semester in which they complete this course.
- "ESL", "Coreq" and "College" refer to students' initial placement at Hostos. There is only one version of ENG 111.



## Gateway Math Enrollment and Completion:

## All First-Time Freshmen:

The following diagram aggregates the cumulative number and percent of unique students from the Fall 22 cohort across one full academic year, from Fall 2022 through Summer 2023. The headings in the diagram are defined as follows:

- Those who initially enroll for a mathematics course are included in the "Attempted" count in the first semester they enroll (even if they withdraw at some point).
- Those who successfully completed at least one gateway mathematics course are included in the "Completed" count in the first semester in which they complete a course.
- Those who never enroll for a mathematics course are included in the "No attempt" count and have never registered for a mathematics course in any of the included semesters
- All Hostos degrees require gateway math except for Dental Hygiene. By removing students who enter Hostos as Dental Hygiene majors, the rate of attempt and completion is significantly higher than what is reported in the PMP and Hostos KPIs.

| Fall 2022 | Winter 2023 | Spring 2023 | Summer 2023 | Fail 2023 |
| :---: | :---: | :---: | :---: | :---: |
| Attempted: $651 \text { (72\%) }$ | Attempted: $653 \text { (72\%) }$ | Attempted: $717 \text { (79\%) }$ | Attempted: $719 \text { (80\%) }$ | Attempted: $751 \text { (83\%) }$ |
| Completed: $374 \text { (41\%) }$ | Completed: $380 \text { (42\%) }$ | Completed: $444 \text { (49\%) }$ | Completed: $448 \text { (50\%) }$ | Completed: $486 \text { (54\%) }$ |

The following pages include additional data and analyses of the semester-by-semester progression of the Fall 22 First Time Freshmen and their attempt and completion rates of Gateway Math.

Unsurprisingly, the largest number/rate of attempts was in the first semester (Fall 22), when the Fall 22 FTF first enrolled. The gains over the next four terms (Winter 23, Spring 23, Summer 23 and Fall 23) are small. By the end of five terms (three full semesters plus Winter and Summer), 54\% of Fall 22 FTF have completed math.

All Hostos degrees require Gateway Math except for Dental Hygiene, and as $46 \%$ of Fall 22 FTF are not enrolled in the Dental Hygiene program, nearly half of the Fall 22 FTF have not attempted or have not completed Gateway Math. While some students put off taking math in their first semesters because they cannot find a seat in an appropriate math class that fits their schedule or preferred modality, by their second fall, there may be more holding them back from enrolling in Gateway math.

In addition to being a component of the Common Core and a graduation requirement, Gateway Math completion continues to correlate with first term and first year retention.

The following iteration of this report will include retention data for the Fall 22 and Fall 23 FTF in relation to Gateway Math attempt and completion, as well as analysis of data that have been disaggregated by race/ethnicity, gender and age.

Among these are the below steps for which a model and implementation timeline need to be developed:

1. Fall 2022 Cohort of First Time Freshmen (Both Full and Part-time)
a. By degree program

Distribution of All First Time Freshmen Across Academic Degree Plans

| Department | Degree Program | Number of Students |
| :--- | :--- | :--- |
| Allied Health | Dental Hygiene | 80 |
| Allied Health | Nursing | 178 |
| Allied Health | Radiologic Technology | 66 |
| Behavioral \& Social Sciences | Criminal Justice | 59 |
| Behavioral \& Social Sciences | Paralegal | 3 |
| Behavioral \& Social Sciences | Police Science | 4 |
| Behavioral \& Social Sciences | Public Policy and Administration | 2 |
| Business | Accounting AAS | 4 |
| Business | Accounting AS | 18 |
| Business | Accounting for Forensic | 1 |
| Business | Business Management | 58 |
| Business | Office Technology | 6 |
| Education | Aging and Health Studies | 0 |
| Education | Community Health | 6 |
| Education | Early Childhood | 40 |
| Humanities | Digital Design and Animation | 52 |
| Humanities | Digital Music | 17 |


| Humanities | Game Design | 60 |
| :--- | :--- | :--- |
| Mathematics | Computer Science | 47 |
| Mathematics | Mathematics | 2 |
| Natural Sciences | Chemical Engineering | 4 |
| Natural Sciences | Civil Engineering | 8 |
| Natural Sciences | Electrical Engineering | 20 |
| Natural Sciences | Mechanical Engineering | 13 |
| Natural Sciences | Food Studies | 3 |
| Natural Sciences | Liberal Arts AS | 29 |
| Natural Sciences | Science for Forensic | 15 |
| Office of Academic Affairs | Liberal Arts AA | 99 |
| Certificates | LPN Cert | 9 |
| Certificates | OA - Cert | 0 |

b. MAT enrollment by degree program

All First Time Freshmen Across Mathematics Courses by Degree Program

| Degree Program | MAT <br> 100 | MAT <br> 100 SI | MAT <br> 105 | MAT <br> 120 | MAT <br> 120 SI | MAT <br> 150 | MAT <br> 150 SI | MAT <br> 160 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Dental Hygiene | 2 | 13 | 3 | 6 | 4 | 1 | 10 | 1 |
| Nursing | 2 | 41 | 3 | 106 | 25 | 8 | 19 | 1 |
| Radiologic Technology | 3 | 10 | 44 | 4 | 2 | 3 | 12 | 0 |
| Criminal Justice | 3 | 12 | 0 | 36 | 11 | 2 | 6 | 1 |
| Paralegal | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Police Science | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 |
| Public Policy and <br> Administration | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| Accounting AAS | 0 | 2 | 0 | 1 | 0 | 4 | 0 | 2 |
| Accounting AS | 0 | 2 | 0 | 1 | 1 | 15 | 4 | 6 |
| Accounting for Forensic |  |  |  |  |  |  |  |  |
| Business Management | 0 | 14 | 0 | 35 | 6 | 4 | 19 | 3 |
| Office Technology | 0 | 2 | 0 | 3 | 0 | 1 | 0 | 0 |
| Aging and Health <br> Studies |  |  |  |  |  |  |  |  |
| Community Health | 0 | 1 | 1 | 3 | 1 | 2 | 0 | 1 |
| Early Childhood | 4 | 19 | 0 | 10 | 5 | 0 | 0 | 0 |


| Digital Design and <br> Animation | 28 | 15 | 1 | 6 | 7 | 0 | 2 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Digital Music | 13 | 2 | 0 | 3 | 0 | 0 | 0 | 0 |
| Game Design | 15 | 24 | 1 | 7 | 12 | 4 | 2 | 3 |
| Computer Science | 1 | 10 | 2 | 0 | 1 | 36 | 9 | 25 |
| Mathematics | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Chemical Engineering | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 |
| Civil Engineering | 0 | 3 | 0 | 0 | 0 | 6 | 1 | 7 |
| Electrical Engineering | 0 | 5 | 0 | 1 | 0 | 14 | 2 | 8 |
| Mechanical Engineering | 0 | 0 | 0 | 0 | 0 | 9 | 4 | 7 |
| Food Studies | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| Liberal Arts AS | 1 | 6 | 1 | 5 | 0 | 15 | 8 | 9 |
| Science for Forensic | 0 | 0 | 1 | 3 | 0 | 9 | 9 | 9 |
| Liberal Arts AA | 12 | 31 | 3 | 34 | 13 | 9 | 3 | 2 |
| LPN Cert | 0 | 1 | 0 | 7 | 2 | 0 | 2 | 0 |

Note: These courses are taken across all of the semesters reported on (Fall 2022 through Fall 2023, inclusive)

## Fall 2022 Analysis of Course-Taking Patterns:

There was a total of 903 First Time Freshmen, of which 356 were placed in a corequisite course, 395 were placed in college-level course, and 152 were unknown for placement as they had not enrolled in any mathematics course from Fall 2022 through to Fall 2023, inclusive. In Fall 2022, 651 students (72\%) were initially enrolled in gateway mathematics with the following results by cohort:

All First-Time Freshmen Across Mathematics Courses by Grades

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| MAT 100 | 56 | 20 | 11 | 4 | 2 | 3 | 16 |
| MAT 100SI | 164 | 29 | 25 | 23 | 15 | 20 | 52 |
| MAT 105 | 28 | 13 | 4 | 0 | 1 | 5 | 5 |
| MAT 120 | 169 | 41 | 43 | 19 | 9 | 24 | 33 |
| MAT 120SI | 64 | 10 | 9 | 6 | 1 | 25 | 13 |
| MAT 150 | 89 | 26 | 16 | 11 | 0 | 19 | 17 |
| MAT 150SI | 80 | 9 | 14 | 12 | 0 | 12 | 33 |
| MAT 160 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |

All First-Time Freshmen Across Mathematics Courses by Status

Note: $>\mathrm{C}$ indicates a grade of C or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing)

| Mathematics Course | Enrollment in Course | $>$ C | $>$ D | F | W |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MAT 100 | 56 | 35 | 37 | 3 | 16 |
| MAT 100SI | 164 | 77 | 92 | 20 | 52 |
| MAT 105 | 28 | 17 | 18 | 5 | 5 |
| MAT 120 | 169 | 103 | 112 | 24 | 33 |
| MAT 120SI | 64 | 25 | 26 | 25 | 13 |
| MAT 150 | 89 | 53 | 53 | 19 | 17 |
| MAT 150SI | 80 | 35 | 35 | 12 | 33 |
| MAT 160 | 1 | 1 | 1 | 0 | 0 |

All First-Time Freshmen Across Mathematics Courses by Grades
(by percentage in total enrollment for course)

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| MAT 100 | 56 | $36 \%$ | $20 \%$ | $7 \%$ | $4 \%$ | $5 \%$ | $29 \%$ |
| MAT 100SI | 164 | $18 \%$ | $15 \%$ | $14 \%$ | $9 \%$ | $12 \%$ | $32 \%$ |
| MAT 105 | 28 | $46 \%$ | $14 \%$ | $0 \%$ | $4 \%$ | $18 \%$ | $18 \%$ |
| MAT 120 | 169 | $24 \%$ | $25 \%$ | $11 \%$ | $5 \%$ | $14 \%$ | $20 \%$ |
| MAT 120SI | 64 | $16 \%$ | $14 \%$ | $9 \%$ | $2 \%$ | $39 \%$ | $20 \%$ |
| MAT 150 | 89 | $29 \%$ | $18 \%$ | $12 \%$ | $0 \%$ | $21 \%$ | $19 \%$ |
| MAT 150SI | 80 | $11 \%$ | $18 \%$ | $15 \%$ | $0 \%$ | $15 \%$ | $41 \%$ |
| MAT 160 | 1 | $100 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |

All First-Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of $C$ or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing) (by percentage in total enrollment in course)

| Mathematics Course | Enrollment in Course | $>$ C | $>$ D | F | W |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MAT 100 | 56 | $63 \%$ | $66 \%$ | $5 \%$ | $29 \%$ |
| MAT 100SI | 164 | $47 \%$ | $56 \%$ | $12 \%$ | $32 \%$ |
| MAT 105 | 28 | $61 \%$ | $64 \%$ | $18 \%$ | $18 \%$ |
| MAT 120 | 169 | $61 \%$ | $66 \%$ | $14 \%$ | $20 \%$ |
| MAT 120SI | 64 | $39 \%$ | $41 \%$ | $39 \%$ | $20 \%$ |
| MAT 150 | 89 | $60 \%$ | $60 \%$ | $21 \%$ | $19 \%$ |
| MAT 150SI | 80 | $44 \%$ | $44 \%$ | $15 \%$ | $41 \%$ |
| MAT 160 | 1 | $100 \%$ | $100 \%$ | $0 \%$ | $0 \%$ |

In the Fall 2022 semester itself, the overall pass rate for those who attempted gateway math was 374 out of 651 (57\%). By the completion of Fall 2022, 374 (41\%) of the Fall 2022 First-Time Freshmen had completed their gateway mathematics requirement. The overall success rate of passing gateway mathematics for students who have attempted a gateway course is 374 out of 651 ( $57 \%$ ). There remain 252 ( $28 \%$ ) of the First-Time Freshmen who have yet to attempt a gateway mathematics course and 277 (31\%) who have attempted a gateway mathematics course but have been unsuccessful.

By the completion of Fall 2022:

| Student Cohort | Gateway Math Attempt | Gateway Math Pass | Gateway Math Incomplete |
| :--- | :---: | :---: | :---: |
| Coreq: $\mathrm{N}=356$ | $308(86.5 \%)$ | $153(43.0 \%)$ | $203(57 \%)$ |
| College: $\mathrm{N}=395$ | $343(86.8 \%)$ | $221(55.9 \%)$ | $174(44.1 \%)$ |
| Unknown: $\mathrm{N}=152^{*}$ | $0(0 \%)$ | $0(0 \%)$ | $152(100 \%)$ |
| Total: $\mathrm{N}=903$ | $651(72.1 \%)$ | $374(41.4 \%)$ | $529(58.6 \%)$ |

* Note: 47 of the 152 unknown placement students are Dental Hygiene and do not require a mathematics course


## Winter 2023 Analysis of Course-Taking Patterns:

There were 20 (2\%) First-Time Freshmen who enrolled in Winter 2023. For the semester, the following grade distribution existed across the gateway mathematics courses:

All First Time Freshmen Across Mathematics Courses by Grades

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 120 | 8 | 5 | 0 | 2 | 0 | 0 | 1 |
| MAT 150 | 5 | 3 | 1 | 0 | 1 | 0 | 0 |
| MAT 160 | 7 | 2 | 2 | 0 | 0 | 1 | 2 |

All First Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of C or higher and > D indicates a grade of D or higher (passing)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 120 | 8 | 7 | 7 | 0 | 1 |
| MAT 150 | 5 | 4 | 5 | 0 | 0 |
| MAT 160 | 7 | 4 | 4 | 1 | 2 |

All First Time Freshmen Across Mathematics Courses by Grades
(by percentage in total enrollment for course)

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 120 | 8 | $63 \%$ | $0 \%$ | $25 \%$ | $0 \%$ | $0 \%$ | $13 \%$ |
| MAT 150 | 5 | $60 \%$ | $20 \%$ | $0 \%$ | $20 \%$ | $0 \%$ | $0 \%$ |
| MAT 160 | 7 | $29 \%$ | $29 \%$ | $0 \%$ | $0 \%$ | $14 \%$ | $29 \%$ |

All First Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of C or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing) (by percentage in total enrollment in course)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 120 | 8 | $88 \%$ | $88 \%$ | $0 \%$ | $13 \%$ |
| MAT 150 | 5 | $80 \%$ | $100 \%$ | $0 \%$ | $0 \%$ |
| MAT 160 | 7 | $57 \%$ | $57 \%$ | $14 \%$ | $29 \%$ |

In Winter 2023 itself, the overall pass rate of those who attempted was 16 out of 20 ( $80 \%$ ). By the completion of Fall 2022 and Winter 2023, 380 (42\%) of the Fall 2022 First-Time Freshmen had completed their gateway mathematics requirement. The overall success rate of passing gateway mathematics for students who have attempted a gateway course is 380 out of 653 ( $58 \%$ ). There remain 250 ( $28 \%$ ) First-Time Freshmen who have not attempted a mathematics course and 273 ( $30 \%$ ) who have attempted at least once but have been unsuccessful.

By the completion of Winter 2023:

| Student Cohort | Gateway Math Attempt | Gateway Math Pass | Gateway Math Incomplete |
| :--- | :---: | :---: | :---: |
| Coreq: $\mathrm{N}=356$ | $308(86.5 \%)$ | $153(43.0 \%)$ | $203(57 \%)$ |


| College: $\mathrm{N}=395$ | $345(87.3 \%)$ | $227(57.5 \%)$ | $168(42.5 \%)$ |
| :--- | :---: | :---: | :---: |
| Unknown: $\mathrm{N}=152$ | $0(0 \%)$ | $0(0 \%)$ | $152(100 \%)$ |
| Total: $\mathrm{N}=903$ | $653(72.3 \%)$ | $380(42.1 \%)$ | $523(57.9 \%)$ |

## Spring 2023 Analysis of Course-Taking Patterns:

A total of 264 (29\%) Fa22 First-Time Freshmen enrolled in Gateway Math in Spring 2023. For the semester, the following grade distribution existed across the gateway mathematics courses:

All First-Time Freshmen Across Mathematics Courses by Grades

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 17 | 5 | 3 | 1 | 0 | 2 | 6 |
| MAT 100SI | 43 | 2 | 6 | 5 | 2 | 0 | 28 |
| MAT 105 | 21 | 5 | 3 | 3 | 0 | 2 | 8 |
| MAT 120 | 53 | 12 | 8 | 7 | 1 | 8 | 17 |
| MAT 120SI | 19 | 2 | 3 | 2 | 2 | 2 | 8 |
| MAT 150 | 31 | 5 | 2 | 5 | 0 | 9 | 10 |
| MAT 150SI | 29 | 3 | 4 | 1 | 1 | 1 | 19 |
| MAT 160 | 48 | 16 | 8 | 3 | 3 | 4 | 14 |
| MAT 210 | 3 | 1 | 0 | 0 | 0 | 1 | 1 |

All First-Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of C or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 17 | 9 | 9 | 2 | 6 |
| MAT 100SI | 43 | 13 | 15 | 0 | 28 |
| MAT 105 | 21 | 11 | 11 | 2 | 8 |
| MAT 120 | 53 | 27 | 28 | 8 | 17 |
| MAT 120SI | 19 | 7 | 9 | 2 | 8 |
| MAT 150 | 31 | 12 | 12 | 9 | 10 |
| MAT 150SI | 29 | 8 | 9 | 1 | 19 |
| MAT 160 | 48 | 27 | 30 | 4 | 14 |
| MAT 210 | 3 | 1 | 1 | 1 | 1 |

All First-Time Freshmen Across Mathematics Courses by Grades
(by percentage in total enrollment for course)

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 17 | $29 \%$ | $18 \%$ | $6 \%$ | $0 \%$ | $12 \%$ | $35 \%$ |
| MAT 100SI | 43 | $5 \%$ | $14 \%$ | $12 \%$ | $5 \%$ | $0 \%$ | $65 \%$ |
| MAT 105 | 21 | $24 \%$ | $14 \%$ | $14 \%$ | $0 \%$ | $10 \%$ | $38 \%$ |
| MAT 120 | 53 | $23 \%$ | $15 \%$ | $13 \%$ | $2 \%$ | $15 \%$ | $32 \%$ |


| MAT 120SI | 19 | $11 \%$ | $16 \%$ | $11 \%$ | $11 \%$ | $11 \%$ | $42 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 150 | 31 | $16 \%$ | $6 \%$ | $16 \%$ | $0 \%$ | $29 \%$ | $32 \%$ |
| MAT 150SI | 29 | $10 \%$ | $14 \%$ | $3 \%$ | $3 \%$ | $3 \%$ | $66 \%$ |
| MAT 160 | 48 | $33 \%$ | $17 \%$ | $6 \%$ | $6 \%$ | $8 \%$ | $29 \%$ |
| MAT 210 | 3 | $33 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $33 \%$ | $33 \%$ |

All First-Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of $C$ or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing) (by percentage in total enrollment in course)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | $\mathrm{W} / \mathrm{INC}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 17 | $53 \%$ | $53 \%$ | $12 \%$ | $35 \%$ |
| MAT 100SI | 43 | $30 \%$ | $35 \%$ | $0 \%$ | $65 \%$ |
| MAT 105 | 21 | $52 \%$ | $52 \%$ | $10 \%$ | $38 \%$ |
| MAT 120 | 53 | $51 \%$ | $53 \%$ | $15 \%$ | $32 \%$ |
| MAT 120SI | 19 | $37 \%$ | $47 \%$ | $11 \%$ | $42 \%$ |
| MAT 150 | 31 | $39 \%$ | $39 \%$ | $29 \%$ | $32 \%$ |
| MAT 150SI | 29 | $28 \%$ | $31 \%$ | $3 \%$ | $66 \%$ |
| MAT 160 | 48 | $56 \%$ | $63 \%$ | $8 \%$ | $29 \%$ |
| MAT 210 | 3 | $33 \%$ | $33 \%$ | $33 \%$ | $33 \%$ |

In Spring 2023, the overall pass rate of those who attempted Gateway Math was 124 out of 264 (47\%). By the completion of the Fall 2022, Winter 2023, and Spring 2023 semesters, a total of 444 (49\%) of the Fall 2022 First-Time Freshmen had completed their gateway mathematics requirement. The overall success rate of passing gateway mathematics for students who have attempted a gateway course is 444 out of 717 (62\%). There are still 186 (21\%) First-Time Freshmen who have not attempted a mathematics course and 273 (30\%) who have attempted at least once but have been unsuccessful.

By the completion of Spring 2023:

| Student Cohort | Gateway Math Attempt | Gateway Math Pass | Gateway Math Incomplete |
| :--- | :---: | :---: | :---: |
| Coreq: $\mathrm{N}=356$ | $345(96.9 \%)$ | $186(52.2 \%)$ | $170(47.7 \%)$ |
| College: $\mathrm{N}=395$ | $372(94.1 \%)$ | $258(65.3 \%)$ | $137(34.7 \%)$ |
| Unknown: $\mathrm{N}=152$ | $0(0 \%)$ | $0(0 \%)$ | $152(100 \%)$ |
| Total: $\mathrm{N}=903$ | $717(79.4 \%)$ | $444(49.2 \%)$ | $459(50.8 \%)$ |

## Summer 2023 Analysis of Course-Taking Patterns:

A total of 33 (4\%) First-Time Freshmen enrolled in Summer 2023. For the semester, the following grade distribution existed across the gateway mathematics courses:

All First Time Freshmen Across Mathematics Courses by Grades

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 2 | 0 | 1 | 0 | 0 | 0 | 1 |
| MAT 120 | 5 | 2 | 1 | 2 | 0 | 0 | 0 |
| MAT 150 | 6 | 1 | 1 | 1 | 0 | 0 | 3 |
| MAT 160 | 10 | 1 | 2 | 2 | 0 | 4 | 1 |
| MAT 210 | 10 | 8 | 1 | 0 | 0 | 0 | 1 |

All First Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of C or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 2 | 1 | 1 | 0 | 1 |
| MAT 120 | 5 | 5 | 5 | 0 | 0 |
| MAT 150 | 6 | 3 | 3 | 0 | 3 |
| MAT 160 | 10 | 5 | 5 | 4 | 1 |
| MAT 210 | 10 | 9 | 9 | 0 | 1 |

All First Time Freshmen Across Mathematics Courses by Grades
(by percentage in total enrollment for course)

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 2 | $0 \%$ | $50 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $50 \%$ |
| MAT 120 | 5 | $40 \%$ | $20 \%$ | $40 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| MAT 150 | 6 | $17 \%$ | $17 \%$ | $17 \%$ | 0 | 0 | $50 \%$ |
| MAT 160 | 10 | $10 \%$ | $20 \%$ | $20 \%$ | 0 | $40 \%$ | $10 \%$ |
| MAT 210 | 10 | $80 \%$ | $10 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $10 \%$ |

All First Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of $C$ or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing) (by percentage in total enrollment in course)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 2 | $50 \%$ | $50 \%$ | $0 \%$ | $50 \%$ |
| MAT 120 | 5 | $100 \%$ | $100 \%$ | $0 \%$ | $0 \%$ |
| MAT 150 | 6 | $50 \%$ | $50 \%$ | $0 \%$ | $50 \%$ |
| MAT 160 | 10 | $50 \%$ | $50 \%$ | $40 \%$ | $10 \%$ |
| MAT 210 | 10 | $90 \%$ | $90 \%$ | $0 \%$ | $10 \%$ |

In Summer 2023, the overall pass rate of those who attempted was 23 out of $33(70 \%)$. By the completion of Fall2022, Winter 2023, Spring 2023, and Summer 2023, 448 (50\%) of the Fall 2022 First-Time Freshmen had completed their gateway mathematics requirement. The overall success rate of passing gateway mathematics for students who have attempted a gateway course is 448 out of 719 (62\%). By the start of Fall 2023, 184 (20\%) of the Fa22 First-Time Freshmen have yet to attempt a mathematics course and 271 ( $30 \%$ ) have attempted at least once but have been unsuccessful.

By the completion of Summer 2023:

| Student Cohort | Gateway Math Attempt | Gateway Math Pass | Gateway Math Incomplete |
| :--- | :---: | :---: | :---: |
| Coreq: $\mathrm{N}=356$ | $345(96.9 \%)$ | $186(52.2 \%)$ | $170(47.7 \%)$ |
| College: $\mathrm{N}=395$ | $374(94.7 \%)$ | $262(66.3 \%)$ | $133(33.7 \%)$ |
| Unknown: $\mathrm{N}=152$ | $0(0 \%)$ | $0(0 \%)$ | $152(100 \%)$ |
| Total: $\mathrm{N}=903$ | $719(79.6 \%)$ | $448(49.6 \%)$ | $455(50.4 \%)$ |

Fall 2023 Analysis of Course-Taking Patterns:
A total of 153 (17\%) Fa22 First-Time Freshmen enrolled in Gateway Math in Fall 2023. For the semester, the following grade distribution existed across the gateway mathematics courses:

All First Time Freshmen Across Mathematics Courses by Grades

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 9 | 2 | 1 | 1 | 1 | 0 | 4 |
| MAT 100SI | 9 | 1 | 0 | 2 | 0 | 1 | 5 |
| MAT 105 | 11 | 4 | 3 | 1 | 0 | 0 | 3 |
| MAT 120 | 41 | 16 | 6 | 5 | 4 | 3 | 7 |
| MAT 120SI | 7 | 1 | 0 | 0 | 0 | 1 | 5 |
| MAT 150 | 16 | 3 | 5 | 1 | 0 | 0 | 7 |
| MAT 150SI | 8 | 4 | 0 | 1 | 0 | 2 | 1 |
| MAT 160 | 24 | 6 | 5 | 2 | 1 | 5 | 5 |
| MAT 210 | 20 | 5 | 9 | 2 | 0 | 1 | 3 |
| MAT 220 | 8 | 2 | 2 | 0 | 0 | 2 | 2 |

All First Time Freshmen Across Mathematics Courses by Status
Note: > C indicates a grade of $C$ or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 9 | 4 | 5 | 0 | 4 |
| MAT 100SI | 9 | 3 | 3 | 1 | 5 |
| MAT 105 | 11 | 8 | 8 | 0 | 3 |
| MAT 120 | 41 | 27 | 31 | 3 | 7 |
| MAT 120SI | 7 | 1 | 1 | 1 | 5 |
| MAT 150 | 16 | 9 | 9 | 0 | 7 |
| MAT 150SI | 8 | 5 | 5 | 2 | 1 |
| MAT 160 | 24 | 13 | 14 | 5 | 5 |
| MAT 210 | 20 | 12 | 13 | 5 | 5 |
| MAT 220 | 8 | 4 | 4 | 2 | 2 |

All First Time Freshmen Across Mathematics Courses by Grades
(by percentage in total enrollment for course)

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W / INC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 9 | $22 \%$ | $11 \%$ | $11 \%$ | $11 \%$ | 0 | $44 \%$ |
| MAT 100SI | 9 | $11 \%$ | $0 \%$ | $22 \%$ | $0 \%$ | $11 \%$ | $56 \%$ |
| MAT 105 | 11 | $36 \%$ | $27 \%$ | $9 \%$ | $0 \%$ | $0 \%$ | $27 \%$ |
| MAT 120 | 41 | $39 \%$ | $15 \%$ | $12 \%$ | $10 \%$ | $7 \%$ | $17 \%$ |
| MAT 120SI | 7 | $14 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $14 \%$ | $71 \%$ |
| MAT 150 | 16 | $19 \%$ | $31 \%$ | $6 \%$ | $0 \%$ | $0 \%$ | $44 \%$ |
| MAT 150SI | 8 | $50 \%$ | $0 \%$ | $13 \%$ | $0 \%$ | $25 \%$ | $13 \%$ |
| MAT 160 | 24 | $25 \%$ | $21 \%$ | $8 \%$ | $4 \%$ | $21 \%$ | $21 \%$ |
| MAT 210 | 20 | $25 \%$ | $45 \%$ | $10 \%$ | $0 \%$ | $5 \%$ | $15 \%$ |
| MAT 220 | 8 | $25 \%$ | $25 \%$ | $0 \%$ | $0 \%$ | $25 \%$ | $25 \%$ |

All First Time Freshmen Across Mathematics Courses by Status
Note: $>\mathrm{C}$ indicates a grade of C or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing) (by percentage in total enrollment in course)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MAT 100 | 9 | $44 \%$ | $56 \%$ | $0 \%$ | $44 \%$ |
| MAT 100SI | 9 | $33 \%$ | $33 \%$ | $11 \%$ | $56 \%$ |
| MAT 105 | 11 | $73 \%$ | $73 \%$ | $0 \%$ | $27 \%$ |
| MAT 120 | 41 | $66 \%$ | $76 \%$ | $7 \%$ | $17 \%$ |
| MAT 120SI | 7 | $14 \%$ | $14 \%$ | $14 \%$ | $71 \%$ |
| MAT 150 | 16 | $56 \%$ | $56 \%$ | $0 \%$ | $44 \%$ |
| MAT 150SI | 8 | $63 \%$ | $63 \%$ | $25 \%$ | $13 \%$ |
| MAT 160 | 24 | $54 \%$ | $58 \%$ | $21 \%$ | $21 \%$ |
| MAT 210 | 20 | $60 \%$ | $65 \%$ | $25 \%$ | $25 \%$ |
| MAT 220 | 8 | $50 \%$ | $50 \%$ | $25 \%$ | $25 \%$ |

In Fall 2023, the overall pass rate of Fa22 FTF who attempted Gateway Math was 93 out of 153 (61\%). By the completion of Fall2022, Winter 2023, Spring 2023, Summer 2023, and Fall 2023, 486 (54\%) of all the Fall 2022 First-Time Freshmen had completed their gateway mathematics requirement. The overall success rate of passing gateway mathematics for students who have attempted a gateway course is 486 out of 751 (65\%). There are still 152 (17\%) of the Fa22 First-Time Freshmen who have yet to attempt a mathematics course and 265 (29\%) who have attempted at least once but have been unsuccessful ( $46 \%$ of Fa22 FTF have not completed Gateway Math by the end of Fall 2023).

By the completion of Fall 2023:

| Student Cohort | Gateway Math Attempt | Gateway Math Pass | Gateway Math Incomplete |
| :--- | :---: | :---: | :---: |
| Coreq: $\mathrm{N}=356$ | $356(100 \%)$ | $197(55.3 \%)$ | $159(44.7 \%)$ |
| College: $\mathrm{N}=395$ | $395(100 \%)$ | $289(73.2 \%)$ | $106(26.8 \%)$ |
| Unknown: $\mathrm{N}=152$ | $0(0 \%)$ | $0(0 \%)$ | $152(100 \%)$ |
| Total: $\mathrm{N}=903$ | $751(83.2 \%)$ | $486(53.8 \%)$ | $417(46.2 \%)$ |

Winter 2024 Analysis of Course-Taking Patterns:
There were \#\# (\#\#\%) First-Time Freshmen who enrolled in Winter 2024. For the semester, the following grade distribution existed across the gateway mathematics courses:

All First Time Freshmen Across Mathematics Courses by Grades

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

All First Time Freshmen Across Mathematics Courses by Status Note: > C indicates a grade of $C$ or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

All First Time Freshmen Across Mathematics Courses by Grades (by percentage in total enrollment for course)

| Mathematics <br> Course | Enrollment in <br> Course | A | B | C | D | F | W |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

All First Time Freshmen Across Mathematics Courses by Status Note: $>\mathrm{C}$ indicates a grade of C or higher and $>\mathrm{D}$ indicates a grade of D or higher (passing) (by percentage in total enrollment in course)

| Mathematics Course | Enrollment in Course | $>\mathrm{C}$ | $>\mathrm{D}$ | F | W |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

In Winter 2024 itself, the overall pass rate of those who attempted was \#\# out of \#\# (\#\#\%). By the completion of Fall 2022 to Winter 2024, \#\#\# (\#\#\%) of the Fall 2022 First-Time Freshmen
had completed their gateway mathematics requirement. The overall success rate of passing gateway mathematics for students who have attempted a gateway course is \#\#\# out of \#\#\# (\#\#\%). There remain \#\#\# (\#\#\%) First-Time Freshmen who have not attempted a mathematics course and \#\#\# (\#\#\%) who have attempted at least once but have been unsuccessful.


[^0]:    ${ }^{1}$ Lead author is Dr. Anders Stachelek, Director of Assessment, Hostos Office of Institutional Effectiveness, Research and Assessment.

