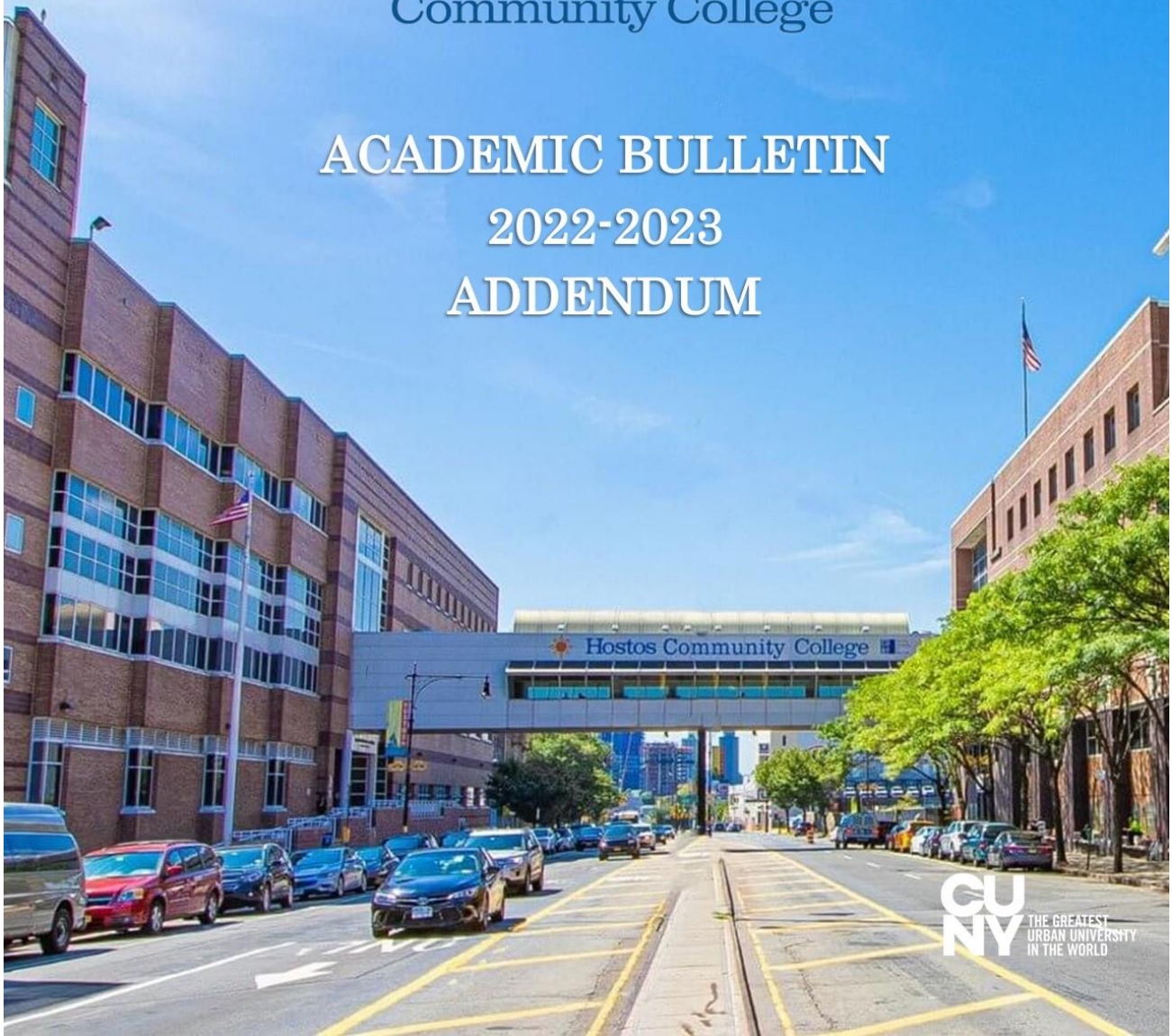# ACADEMIC BULLETIN
2022-2023
ADDENDUM

The following items are addenda to the official College Catalog. Addenda will be included in the next official publication of the Hostos College Catalog.

October 2022
January/February 2023

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October 2022 – NEW COURSES

Mathematics Department (Effective Spring 2023)

[ADD] New Course
MAT 301 Probability and Mathematical Statistics I
3 Credits, 3 Hours
Pre/Co-requisites: MAT 210, ESL 86-88 or ESL 91 or higher, or ENG 100 or higher
This course emphasizes the calculus-based probability theory necessary for the study of statistical inference. Topics include pictorial and tabular results of descriptive statistics, an introduction to probability theory, independence, and conditional probabilities including Bayes' Theorem. Several discrete (binomial, hypergeometric, negative binomial, Poisson) and continuous (Normal, exponential, gamma, uniform) probability distributions will be studied including the concepts of a distribution function, probability mass, and density functions, expected value, variance, and standard deviation. Joint probability distributions and sampling distributions follow. We shall see how the law of large numbers and the Central Limit Theorem are used in statistics. The course will then apply the concepts of probability learned to the point estimates, confidence intervals, tests of hypothesis, and regression. Probability can be taught as a branch of mathematics but is much better appreciated if taught Students will use computer software such as Maple or R. In fact, learning how to use Maple/R is among major course objectives.

CSC 320 Computer Algorithms
3 credits, 3 Hours
Pre/Co-requisites: ENG 111 and CSC 275
This course is an introductory undergraduate course on the design and analysis of algorithms. The goal of this course is to introduce basic- fundamental algorithm design techniques that are interesting both from a theoretical and practical point of view. We will cover basic algorithm design techniques such as divide-and-conquer, dynamic programming, and greedy techniques for optimization. We will cover techniques for proof of the correctness of algorithms, and also asymptotic analysis of algorithm time bounds by the solution of recurrence equations. Some specific algorithm topics include: deterministic and randomized sorting and searching algorithms, depth and breadth first search graph algorithms for finding paths and matchings, and algebraic algorithms for fast multiplication and linear system solving. Student computer background should include recursive procedures, and data structures from object orientated programming such as arrays, queues, binary trees, graphs, and linked lists. Student mathematical background should include mathematical induction and elements of calculus. This course will employ pseudo code for which an understanding of a high-level programming course is required. Students are expected to have experience in a high-level programming language

January/February 2023– NEW COURSES

Education Department (Effective Spring 2023)

[ADD] New Course
EDU Instructional Technology Models and Practices (EXPERIMENTAL)
3 credits, 2.5 hrs. lecture; 1 hr. fieldwork
Pre/Co-requisite: EDU 226
Students will examine topics in Instructional Technology such as digital citizenship, equity and accessibility, and the positive impact of computer-integrated education on student achievement and engagement. They will complete a 10- hour practical experience, where they will demonstrate proficiency with digital technologies in an educational setting by developing and implementing computational artifacts for a K-12 classroom. Students will address state standards as they follow technology-based course-design models (for example, game-based learning and universal design for learning) to create developmentally-appropriate lesson plans and activities.

October 2022 – CHANGES MADE TO EXISTING COURSES

Behavioral & Social Sciences Department (Effective Spring 2023)

POL 102 Comparative Politics
[DELETE] POL 102
[DELETE] Pre-requisite: Completion of an introductory course
[ADD] POL 202
[ADD] Pre-requisite: ENG 100 or Higher

Mathematics Department (Effective Spring 2023)

CSC 140 Introduction to Computer Science
[DELETE] Pre-requisite: ENG 10/110 ALP and MAT 15 or MAT 20
[ADD] Pre-requisite: ENG 100 and CUNY Proficiency Index

CSC 215 Modern Programming
[DELETE] Pre/Co-requisite: MAT 210, ESL 35
[ADD] Pre/Co-requisite: MAT 210, ESL 86 – 88 or ESL 91 or higher

CSC 275 Object Oriented Programming
[DELETE] Pre/Co-requisite: ENG 93 / ESL 91 / ESL 93; CSC 215
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher; CSC 215

CSC 300 Data Structure
[DELETE] Pre/Co-requisite: ENG 93, ESL 91, ESL 93 or Equivalent/higher
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

CSC 375 Computer Networking
[DELETE] Pre/Co-requisite: ENG 93, ESL 91, ESL 93 or Equivalent/higher
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

CSC 395 Web & Mobile App Development
[DELETE] Pre/Co-requisite: ENG 93, ESL 91, ESL 93 or Equivalent/higher
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 100 Introduction to College Mathematics
[DELETE] Pre-requisite: MAT 20 MA 20 or equivalent, placement or exemption
[DELETE] Pre/Co-requisite: ESL 35 or Higher
[ADD] Pre-requisite: MA 20 or CUNY Proficiency Index
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 105 Mathematics for Allied Health Sciences
[DELETE] Pre-requisite: MAT 20, MA 20 or equivalent, or placement ESL 91/93 or ENG 91/93 or higher
[ADD] Pre-requisite: MA 20 or CUNY Proficiency Index
[ADD] Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 110 Number Theory
[DELETE] Pre/Co-requisite: ESL 35
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher

MAT 115 Quantitative Reasoning
[DELETE] Pre-requisite: MAT 20, MA 20 or equivalent, placement or exemption

[DELETE] Pre/Co-requisite: ESL 91/93 or ENG 91/93 or Higher
[ADD] Pre-requisite: MA 20, CUNY Proficiency Index
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 120 Introduction to Probability and Statistics
[DELETE] Pre-requisite: MAT 15, MAT 20, MA 20 or equivalent, or placement
[DELETE] Pre/Co-requisite: ENG 91/ENG 93 or ESL 91/ESL 93 or higher (If taught in Spanish: SPA 121 or higher)
[ADD] Pre-requisite: MA 20 or CUNY Proficiency Index
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher (If taught in Spanish: SPA 121 or higher

MAT 130 Computer Literacy
[DELETE] Pre-requisite: Placement or MAT 20, ENG 93 or ESL 91 or ESL 93 or ESL 95
[DELETE] Co-requisite: ENG 93 or ESL 91 or ESL 93 or ESL 95
[ADD] Pre-requisite: CUNY Proficiency Index
[ADD] Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 150 College Algebra with Trigonometric Functions
[DELETE] Pre-requisite: MAT15, MAT20, MA 20 or equivalent, or placement
[DELETE] Pre/Co-requisite: For section taught in English: ESL 35 or higher; For section taught in Spanish: SPA 117 or SPA 121
[ADD] Pre-requisite: MA 20 or CUNY Proficiency Index
[ADD] Pre/Co-requisite: For section taught in English: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher; For section taught in Spanish: SPA 117 or SPA 121

MAT 160 Pre-Calculus
[DELETE] Pre/Co-requisite: For sections taught in English ESL 35 or higher. For sections taught in Spanish: SPA 117 or SPA 121
[ADD] Pre/Co-requisite: For section taught in English: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher; For section taught in Spanish: SPA 117 or SPA 121

MAT 210 Calculus I
[DELETE] Pre/Co-requisite: ESL 35
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 220 Calculus II
[DELETE] Pre/Co-requisite: ESL 35
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 310 Calculus III
[DELETE] Pre/Co-requisite: ESL 35
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 320 Linear Algebra with Vector Analysis
[DELETE] Pre/Co-requisite: ESL 35
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

MAT 360 Ordinary Differential Equations
[DELETE] Pre/Co-requisite: ESL 35
[ADD] Pre/Co-requisite: ESL 86 – 88 or ESL 91 or higher, or ENG 100 or higher

ENGR 20400 Electrical Circuits
[DELETE] Pre-requisite: MAT 310 and PHY 210
[ADD] Pre-requisite: PHY 210
[ADD] Co-requisite: MAT 310

Liberal Arts & Science A.S.   EFFECTIVE Fall 2023
MAJOR REVISED

Liberal Arts & Sciences A.S.

[TO]

English Composition **6**
ENG 110, ENG 111
Mathematical and Quantitative Reasoning...**4**
MAT 160*
Life and Physical Sciences..**4**
BIO 210 **OR** CHE 210 **OR** PHY 210
FLEXIBLE COMMON CORE
World Cultures and Global Issues **3**
US Experience in its Diversity **3**
Creative Expression..**3**
Individual & Society...**3**
Scientific World** **4**
BIO 220 **OR** CHE 220 **OR** PHY 220
**Depending on the sequence selected in Life and Physical Sciences.
One (1) Additional course from the Scientific World...**4**
BIO 260 **OR** BIO 310 **OR** MAT 220 **OR** MAT 310 **OR** CHE 310/312
Subtotal **34**

MAJOR REQUIREMENTS   **CREDITS**
Select one course sequence from an area of concentration different from that selected in
the Common Core (Life and Physical Sciences and Scientific World):..**8**
A. **BIOLOGY:** BIO 210 and BIO 220
B. **CHEMISTRY:** CHE 210 and CHE 220
C. **PHYSICS:** PHY 210 and PHY 220
SCI 100 ....Introduction to Science 3
MAT 210*..............Calculus I..4
SCI 299, BIO 299 OR CHE 299 OR PHY 299 3
Choose (2) additional courses from the following:
BIO 230, BIO 240, BIO 260, BIO 310, CHE 310, MAT 220, OR MAT 310...7-8
Subtotal **25-26**
Free Electives+...**0-1**
Total Credits for Degree..**60**
* If MAT 160 is not a requirement for the student, MAT 210 may serve as an MQR. In that case, the major requirements will increase with an additional 4 credits **Science course**.
+Recommended PED free elective, if needed.
Students pursuing Middle and High School certification in Education at Lehman College should complete the following courses: EDU 101, 117, 130 and 140. The program has received a waiver to specify particular courses students must take in STEM areas of the Common Core (Math and Quantitative Reasoning). **If students take a different course in this area, they will be certified as having completed the Common Core area, but it may not be possible for them to finish their degree in 60 credits.**

Criminal Justice A.A. EFFECTIVE Fall 2023
PROGRAM DESCRIPTION REVISED

Criminal Justice A.A.

[ADD]

Hostos Community College (HCC) offers an Associate in Arts (A.A.) degree in Criminal Justice (CJ) as a dual admissions program in conjunction with the Bachelor of Science degree in Criminal Justice (B.S.) offered by John Jay College of Criminal Justice. The HCC program provides the student with the freshman and sophomore years (60 credits) of the CJ program as required by John Jay, and upon the student's successful completion of the HCC program (minimum 2.0 GPA required) they will make a seamless transition to the John Jay four-year program as a junior.

The CJ program at Hostos serves as a gateway for students interested in law, law enforcement, public safety, cyber security/data privacy, digital forensics and social justice-related fields of work and research. The CJ program covers the policies and practices of the field from a historical, contemporary, and sociopolitical perspective with special attention to historically marginalized communities. It is one of the college's most popular programs with consistently high registration and graduation rates.

The Hostos CJ program lays the foundation for a student's professional career in a number of legal and law enforcement professions, but just as importantly also prepares the student to assume his/her role as a politically conscious and civically engaged member of the community. Graduation from Hostos requires completion of 60 course credits including two writing intensive courses. The CJ program requires successful completion of 36 required course credits. The required courses cover policy and practices regarding policing, police accountability, criminal law, cyber security, public safety, police community relations, the judiciary, and corrections. Courses are offered in multiple modalities including in-person, hybrid, synchronous on-line and asynchronous online courses.