Bogotá Headquarters | UNIVERSIDAD NACIONAL DE COLOMBIA

THE FACULTY SECRETARY

CERTIFIES

That JULIANA ALEJANDRA NIETO CARDENAS, with ID No. 1003565959, was enrolled in the Computer Science Study Plan until the second academic period 2025 and took the subjects or academic activities that total 157 credits, obtaining the following final grade in each of them:

FIRST ACADEMIC PERIOD OF 2019

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2016377	Differential calculus in one variable	4	3.5 Three Five
2026573	Introduction to computer science and programming	3	4.0 Four Zero
1000074-B	Proficiency in a foreign language	12	AP Approved
1000089-B	National Chair of Induction and Preparation for University Life	2	AP Approved

SECOND ACADEMIC PERIOD 2019

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2021154	Space and Power in Latin America;	3	4.3 Four Three
2016375	Object-Oriented Programming;	3	4.3 Four Three
2015168	Fundamentals of Mathematics; Chair of	4	4.6 Four Six
2027992	Management and Organizations	3	4.7 Four Seven

FIRST ACADEMIC PERIOD 2020

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2015181	Number systems	4	3.3 Three Three
2016699	Data structures	3	4.6 Four Six
2015555	Basic linear algebra	4	3.9 Three Nine

SECOND ACADEMIC PERIOD 2020

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2015556	Integral calculus in one variable	4	4.3 Four Three
2016696	Algorithms	3	5.0 Five Zero
2025819	Introduction to set theory	4	4.2 Four Two

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JULIANA ALEJANDRA NIETO   **1003565959**
CARDENAS

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2028663	The challenge of implementing virtuality:	2	4.8 Four Eight
1000013-B	Probability and fundamental statistics	3	4.4 Four Four

FIRST ACADEMIC PERIOD 2021

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2015162	Vector calculus	4	4.1 Four One
2016698	Computer elements	3	4.7 Four Seven
2015178	Probability	4	5.0 Five Zero

SECOND ACADEMIC PERIOD 2021

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2015174	Introduction to the theory of computing.	4	5.0 Five Zero
2016707	Operating systems.	3	5.0 Five Zero
2015155	Introduction to real analysis	4	4.0 Four Zero

SECOND ACADEMIC PERIOD 2022

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2022225	Urban mobility and transport;	3	3.9 Three Nine
2026555	Abstract and computational	4	3.2 Three Two
2027641	algebra; Database analysis	3	4.8 Four Eight
2027642	Compilers	3	4.2 Four Two

FIRST ACADEMIC PERIOD 2023

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2015173	Introduction to optimization	4	3.6 Three Six
2027312	Introduction to combinatorial analysis	4	3.0 Three Zero
1000129-B	Colombian Chair: Citizenship, Integrity and the Fight Against Corruption	3	4.5 Four Five

SECOND ACADEMIC PERIOD 2023

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2026540	Beatles and something more: music, culture and society (1960-75), a musicological view	3	4.3 Four Three
2026274	Bogotá International Music	3	4.8 Four Eight
2027311	Introduction to cryptography and information theory	4	4.4 Four Four
2029435	Jorge Eliécer Gaitán Chair: More young people in 4R cooperatives and more 4R cooperatives of young people.	3	4.5 Four Five
2029436	José Celestino Chair: Will we live to 150 years old? A look at the theoretical limit of longevity.	3	4.9 Four Nine

FIRST ACADEMIC PERIOD 2024

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2028634	Beyond research	4	5.0 Five Zero

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SECOND ACADEMIC PERIOD 2024

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2011183	International academic exchange	0	AP Approved

FIRST ACADEMIC PERIOD 2025

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2019072	Numerical Analysis I	4	4.0 Four Zero
2016701	Software Engineering I	3	5.0 Five Zero
2027310	Cryptography	3	4.9 Four Nine

SECOND ACADEMIC PERIOD 2025

CODE	SUBJECT OR ACADEMIC ACTIVITY	CREDITS	QUALIFICATION
2027633	Thesis - Research Papers: Calculation of	8	5.0 Five Zero
2016342	ordinary differential equations, Markov chains	4	3.9 Three Nine
2028838	and applications	4	3.8 Three Eight
2029274	Topics on advanced algorithms	4	4.1 Four One

Credits included in the curriculum: 139
Academic average: 4.3 Four Three

DISTINCTIONS AND INCENTIVES

 - First academic period 2020: Undergraduate tuition waiver

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This certificate is issued at the request of the interested party in the city of BOGOTÁ, DC, on the first day of the month of February of the year two thousand twenty-six (2026).

MARTHA NANCY CALDERON OZUNA
Faculty Secretary
FACULTY OF SCIENCES
Verification Code: 29330000772050147103

Note: the grading scale for subjects is from zero point zero (0.0) to five point zero (5.0) with the minimum passing grade being three point zero (3.0).
Credit: unit that measures the time that the student requires to fully meet the training objectives of each subject and is equivalent to 48 hours of student work in an academic period (Article 6 of agreement 033 of 2007 of the CSU).
Academic average: weighted average of subjects taken (Article 41 of Agreement 008 of 2008 of the CSU).

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