

JOSÉ NEVILLE DÍAZ CARABALLO

Professor (Catedrático) of Mathematics

Department of Mathematics, University of Puerto Rico at Aguadilla
PO Box 6150, Aguadilla, PR 00604-6150 · jose.neville@upr.edu
math.uprag.edu/diaz.html · youtube.com/@jnevilled

PROFESSIONAL PROFILE

I build open, durable learning resources that remove barriers to success in mathematics and statistics. Since 2002 I have designed and maintained, at no cost to the institution, an open course platform, the departmental website, curated datasets, and a YouTube library (197+ academic videos, 570,000+ views) that serve my students and Spanish-speaking learners worldwide. These resources complement institutional Moodle courses, custom tools for attendance and assessment, and sustained mentoring. I hold that teaching is an act of service, and that service demands excellence.

Teaching quality. Institutional promotion evaluations rate my Teaching Quality at 98.851 out of 100 (2012) and 98.663 out of 100 (2024). Each is a composite of student evaluations, committee evaluation, and inherent responsibilities.

EDUCATION AND HONORS

2000	M.S. in Mathematics (Statistics) , University of Puerto Rico, Mayagüez. GPA 3.85.
1994	B.S. in Pure Mathematics , Interamerican University of Puerto Rico. Magna cum laude. Medal in Mathematics (May 1994).

ACADEMIC APPOINTMENTS

2024–Present	Professor (Catedrático) , Department of Mathematics, UPR Aguadilla.
2012–2024	Associate Professor (Catedrático Asociado) , UPR Aguadilla. Rank granted July 1, 2012.
2005–2012	Assistant Professor (Catedrático Auxiliar) , UPR Aguadilla.
2002–2005	Instructor , UPR Aguadilla.
2000–2002	Instructor , UPR Mayagüez. Coordinator of Statistical Consulting Services (Aug 2001–Jun 2002).

Twenty-three years of full-time teaching certified by Human Resources, April 2024.

ADMINISTRATIVE AND DEPARTMENTAL LEADERSHIP

Aug–Dec 2024	Interim Director (ad honorem), UPR Aguadilla.
2016–2017	Interim Dean of Academic Affairs , UPR Aguadilla.
2015–2017	Coordinator , Institutional Committee for Educational Technology (CITE).
2002–2008	Chair , Department of Mathematics.
2009–2020	President , Departmental Personnel Committee. Qualified faculty, conducted classroom and student evaluations, advised the Director, and evaluated promotion cases.
2022–Present	Member , Departmental Personnel Committee.
2008–Present	Member , Curriculum Committee. Evaluated programs, courses, proposals, and curriculum.
2006–Present	Course Coordinator for ESMA 3101, ESMA 3102, MATE 3171, and MATE 3026: 38 semesters documented through spring 2024. Prepared final exams, reviewed syllabi, recommended textbooks and materials, and evaluated challenge-exam requests.

2019–Present **Coordinator**, Math Workshops Program. Wrote the items of the Moodle diagnostic test, analyzed incoming-student data, administered the diagnostic, and organized 16+ student workshops (2019–2024).

PUBLICATIONS AND SCHOLARLY WORK

Book contribution

Contributor Acuña Fernández, E. *Análisis Estadístico de Datos usando MINITAB* [Statistical Data Analysis Using MINITAB]. John Wiley & Sons.

Articles and essays (all in Spanish)

2014 “Cuando la evidencia cambia, ¿qué haces?” [When the Evidence Changes, What Do You Do?] *Revista Icono*, No. 20, p. 46.

2014 “Armonía matemática” [Mathematical Harmony]. *Revista Icono*, No. 20, p. 49.

2012 “Imaginación: la constante mejora” [Imagination: The Constant Improvement]. *Revista Icono*, No. 18. Open access.

2010 “Cuándo se hace difícil diferenciar entre un genio y un loco” [When It Becomes Hard to Tell a Genius from a Madman]. *Revista Icono*, No. 16. Open access.

Undated “Procesos aleatorios” [Random Processes]. Open access.

Instructional manuals and institutional studies

2026 *Guía de JASP: ESMA 3101* [JASP Guide for ESMA 3101]. Web-based reference manual in Spanish for Applied Statistics I. Open access.

Ongoing Institutional studies on student performance, including freshman approval rates and analyses of incoming-student cohorts.

PEDAGOGICAL INNOVATION AND EDUCATIONAL TECHNOLOGY

2002–Present **Open course platform and departmental website** (math.uprag.edu). Created in 2002 and continuously maintained. The platform supports six courses (ESMA 3101, ESMA 3102, MATE 3171, MATE 3172, MATE 3031, MATE 3032) with syllabi, exam reviews, in-page search, 30+ curated datasets in CSV and Minitab formats, software guides (Minitab, JASP, R), and an interactive Monty Hall simulation. Zero errors in an automated WebAIM WAVE evaluation (2026).

2012–Present **YouTube academic library**. 197+ videos, 570,000+ views, 26,000+ hours watched, 1,190 subscribers (YouTube Studio, September 27, 2026). Video sequences for MATE 3171, MATE 3172, ESMA 3101, and ESMA 3102 organized by the institutional syllabi. Original music composed and recorded for the videos.

2026 **Avalúo Empírico**. Free Windows application that converts Moodle-compatible pre/post score files into institutional reports (TXT, TEX, DOCX, PDF). Methods: normality check with automatic choice between a paired *t*-test against a minimum educationally important difference and a Wilcoxon signed-rank test; 95% confidence interval; Cohen’s d_z ; Hake’s normalized gain; robustness diagnostics; stratification by prior preparation; attrition-bias check. Builds on pre/post assessment practice in ESMA 3101 since 2011.

2025–Present **AttendEase**. GPS-based, FERPA-compliant attendance system, used in four course sections per semester (83 students in Fall 2026). Estimated savings: 3.45 hours of instructional time per semester.

2021 **Faculty Development Day webinar**, “OBS: Basic Use for the Virtual Classroom,” delivered to UPR Aguadilla faculty.

2007 **Course design**: ESMA 3101 and ESMA 3102 (January 2007).

2005–2007 **Web and FTP services** for the Office of the Dean of Academic Affairs and the department.

Other	Moodle course development (quiz banks, diagnostic and pre/post tests) for ESMA 3101 and MATE 3172. NevPlayer, a custom web audio player integrated into the portal.
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Avalúo Empírico and the 2026 edition of the portal were developed with AI-assisted coding (Claude, Anthropic). Methodology, design, and content are the author's.

STUDENT MENTORING, ADVISING, AND CONSULTING

2006–Present	Honors Program. Supervised 20+ students through ad honorem contract courses in ESMA 3101, ESMA 3102, MATE 3026, and MATE 3205.
2010–2019	M.S. thesis committees, UPR Mayagüez (four students): • Principal and independent component techniques in multiple linear regression and unsupervised classification using socioeconomic variables of Puerto Rico (2011–2015). • Factors associated with type of delivery, using random forests and logistic regression (2015–2019). • Quantifying incivility indicators perceived by students in their housing areas (2015–2019). • A fourth master's thesis (2010–2012).
2010–Present	Statistical consultant, Center for Coastal Conservation and Restoration Ecology (Vida Marina), UPR Aguadilla.
2009–2012	Statistical advisor, Puerto Rico Dunes Restoration Program.
2019	Statistical support for two student research projects on bird diversity in northern Puerto Rico.

OUTREACH AND PROFESSIONAL SERVICE

2002–2021	Workshops and talks (20): statistics and Minitab, ANOVA, linear regression, experimental design for classroom assessment, mathematics for K–12 teachers, and mathematical thinking for schools in western Puerto Rico. Invited talk on electric bass (2013).
2006–2019	Judge and test designer at 17 mathematics and science fairs and competitions, including the Interolimpiadas de Matemáticas.
2017–2019	Member, College Board Advanced Level grading committee.

PROFESSIONAL DEVELOPMENT AND MEMBERSHIPS

2007–2023	SIDIM (Seminario Interuniversitario de Investigación en Ciencias Matemáticas): seven seminars documented (2007, 2008, 2012, 2014, 2019, 2020, 2023).
2005–Present	Member, Asociación de Profesores Universitarios de Aguadilla (APUA).

COURSES TAUGHT

Statistics	ESMA 3101 Introduction to Statistics I; ESMA 3102 Introduction to Statistics II; MATE 3026 Statistics with Computers.
Mathematics	MATE 3171 College Algebra I; MATE 3172 Pre-Calculus; MATE 3031 Calculus I; MATE 3032 Calculus II; Mathematics for Business Administration; Calculus for Biology Majors I and II.

TECHNICAL SKILLS

Statistics	Minitab, R, JASP, MATLAB, Python.
Web and media	HTML, CSS, JavaScript, LaTeX, Linux server administration; OBS, Reaper, Audacity, video editing.

Sources: UPR Aguadilla promotion files (2012, 2024), departmental and Human Resources certifications, YouTube Studio (Sep. 27, 2026), WebAIM WAVE (2026). “+” and “estimated” mark approximations. Updated September 2026.