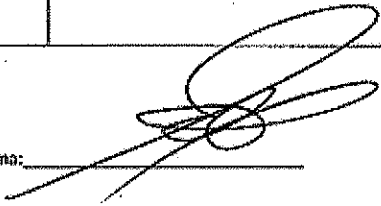


**Información del proponente**

1. Nombre de la entidad que presenta la propuesta: UNIVERSIDAD POLITÉCNICA DE PUERTO RICO	
2. Áreas geográficas donde tiene Interés en ofrecer servicios:	
a. Arecibo <input type="checkbox"/> c. Caguas <input type="checkbox"/> e. Mayagüez <input type="checkbox"/> g. San Juan <input checked="" type="checkbox"/> i. Culebra <input type="checkbox"/> b. Bayamón <input checked="" type="checkbox"/> d. Humacao <input type="checkbox"/> f. Ponce <input type="checkbox"/> h. Vieques <input type="checkbox"/>	
3. Áreas en las que le interesa ofrecer adiestramiento y desarrollo profesional. Marque aquellas que le aplique.	4. Temas:
<u>Materias académicas de prioridad:</u> Español <input checked="" type="checkbox"/> Inglés <input checked="" type="checkbox"/> Matemáticas <input checked="" type="checkbox"/> Ciencias (Generales, Biología, Química, Física, Ciencias Ambientales, Ciencias Terrestres, e Investigación) <input checked="" type="checkbox"/>	Currículo y estrategias <input checked="" type="checkbox"/> Desarrollo de comunidad de aprendizaje <input checked="" type="checkbox"/> Evaluación <input checked="" type="checkbox"/>
	5. Título al cual interesa solicitar:
	Título I Parte A <input checked="" type="checkbox"/>
	Título II Parte A <input checked="" type="checkbox"/>
6. Dirección postal:	
P.O. Box 192017 San Juan, P.R. 00919-2017	
7. Dirección física:	
Ave. Ponco de León 377 Hato Rey, P.R. 00918	
8. Teléfono: (787) 622 -- 8000 EXT. 290	Fax: (787) 754 - 7489
E-mail: hgarcia@pupr.edu	
9. Persona contacto: Prof. Horacio A. García Correa, hgarcia@pupr.edu Sra. María Medina Martínez, mmedina@pupr.edu	
Nombre: Ernesto Vázquez Puesto: Presidente Número de teléfono: (787) 622 -- 8000 ext. 203	Firma: 

## UNIVERSIDAD POLITÉCNICA DE PUERTO RICO

Áreas geográficas donde ofrecerá servicios de capacitación: San Juan y Bayamón

Áreas en las que ofrecerá desarrollo profesional: Ciencias (Física, Química, Biología e Investigación), Matemáticas, Español e Inglés.

Temas Generales por área:

**Matemática:** Razonamiento matemático enmarcado en el enfoque de solución de problemas, Educación basada en un proyecto o tema generador, Fortalecimiento en el conocimiento procesal y revisión de operaciones básicas y Estrategias para redactar ítemes de práctica y tomar pruebas.

**Ciencia:** Metodología de la ciencia, Educación basada en un proyecto que toque los temas principales de (pero no se limita): 1 .Reducción del Consumo energético, 2. Reducción de la degradación ambiental, Investigación Científica (pasos, metodologías, desarrollo de proyectos, análisis y presentación de resultados y Estrategias para redactar ítemes de práctica y tomar pruebas.

**Español e Inglés:** Adquisición de vocabulario, Estructuras Gramaticales, Lectura y Comprensión, Redacción, y Estrategias para redactar ítemes de práctica y tomar pruebas.

**Título al cual interesa solicitar:** Programas Título I, Título II, Parte A,

**Dirección Física:**

Ave. Ponce de León 377  
Hato Rey, P.R. 00918

**Dirección Postal:**

P.O. Box 192017  
San Juan, P.R. 00919-2017

**Teléfono :** (787) 622 – 8000 ext. 230

**Número de facsímil:** (787) 754 - 7489

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(787) 908 - 0238

TABLA DE OFRECIMIENTOS DE TALLERES

MATERIA: MATHEMATICS\_

NIVEL: ELEMENTARY

Area Medular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
Numeration	Number Sense for Grades K-5	Onsite	6 hours	This workshop will be designed to help elementary school teachers understand number sense, why it is important for elementary students to develop, and how to effectively assess what type of number sense students possess. Participants will examine lesson plans, Web resources and the Puerto Rico Standards and Grade Expectations in order to help students develop a deeper understanding of numbers.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Numeration	Rational Numbers, Fractions, Decimals, and Percents in Elementary Grades	Onsite	6 hours	This workshop will be designed to give middle school educators new strategies for teaching the concepts of rational numbers. Learners will analyze sample problems in order to better understand how their students approach the study of fractions, decimals, and percents. Learners will learn common misconceptions that students have, such as viewing fractions as portions and not as quantities.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Numeration	Understanding Numbers and Operations: Addition and Subtraction in Grades PreK-3	Onsite	6 hours	This workshop is designed to help elementary school educators better understand how students learn addition and subtraction, as well as the role and importance of computation strategies in mathematics. As a final task, learners will create and implement a lesson or series of lessons that integrate technology, manipulatives, and effective pedagogical strategies and that promote the vision of the Puerto Rico Standards and Grade Expectations	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

**TABLA DE OFRECIMIENTOS DE TALLERES**

**MATERIA: MATHEMATICS\_**

**NIVEL: SPECIAL EDUCATION TEACHERS**

<b>Area Medular</b>	<b>Título del taller</b>	<b>Modalidad</b>	<b>Duración</b>	<b>Descripción</b>	<b>Materiales</b>	<b>Personal a impactar</b>
<b>Numeration</b>	<b>Number and Operations for Special Education Teachers</b>	<b>Onsite</b>	6 hours	The workshop covers the real number system, place value, the behavior of zero and infinity, meanings and models of basic operations, percentages, and modeling operations with fractions, often with the aid of concrete, physical models that enhance understanding.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, Limited Spanish Proficiency, Districts facilitators.
<b>Numeration</b>	<b>Patterns, Functions and Algebra for Special Education Teachers</b>	<b>Onsite</b>	6 hours	<i>Patterns, Functions, and Algebra</i> explores the "big ideas" in algebraic thinking, such as finding, describing, and using patterns; using functions to make predictions; understanding linearity and proportional reasoning; understanding non-linear functions; and understanding and exploring algebraic structure.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Geometry</b>	<b>Geometry for Special Education Teachers</b>	<b>Onsite</b>	6 hours	Introduces geometric reasoning as a method for problem-solving. In this workshop, which is organized around the content standards of the Puerto Rico Standards and Grade Expectations teachers will explore the properties of geometric figures; make constructions using pencil and paper, and also using dynamic software; and practice using mathematical language to express ideas and justify your reasoning.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Numeration</b>	<b>Number sense</b>	<b>Onsite</b>	6 hours	Participants explore the basic number and operations knowledge that is used in everyday computation. They develop and compare mental computation strategies. Investigate the variety of uses of numbers, explore the connections between counting, number names, place values, and basic operations; and they use number grids to identify patterns in the natural numbers, and review factors, multiples, and primes; explore the family of real numbers, including the natural (counting), negative, rational, and irrational numbers.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Modular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
All Standards	Creating Units to Support Differing Learning Styles	Onsite	6 hours	This workshop is designed to help educators develop a curriculum that meets the diverse learning needs of their students. First, learners will assess and identify the learning styles of their students. Then, they practice planning lessons that address many learning styles simultaneously by creating a cross-curricular unit topic with technology-based activities designed to support learning. Learners will build adaptations and accommodations into their plans, so that they may easily integrate what they've learned into their teachings. Make mathematics accessible and understandable for all students, including those with disabilities. The Individuals with Disabilities Education Act (IDEA) mandates equity so that, whenever possible, students with disabilities learn in the same classrooms and with the same curricula as their peers	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
All Standards	Enabling Students with Special Needs to Succeed in Math Class (Grades 4-8)	Onsite	6 hours		Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
All Standards	Enabling Students with Special Needs to Succeed in Math Class Secondary Level	Onsite	6 hours	This workshop focuses on how to promote equity in mathematics education for students with disabilities. Learners will discover how to adapt their own curricula and collaborate with special needs teachers to help students succeed in the classroom. Learners will develop new instructional strategies for making mathematics more accessible for students with disabilities.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
All Standards	Diagnosis & Remediation of Learning Problems in Mathematics	Onsite	6 hours	This course examines the nature of mathematics learning, major types of mathematics learning problems, and their etiology. It discusses possible causes of these problems and suggests remediation strategies that teachers and parents can use to help children learn mathematics more effectively.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

TABLA DE OFRECIMIENTOS DE TALLERES

MATERIA: MATHEMATICS\_

NIVEL: GENERAL EDUCATION

Area Modular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
General Education PPAA	Understanding the PPAA	Onsite	6 hours	This workshop familiarizes teachers with the PPAA. Interpreting results and strategies to reach safe harbor	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
General Education Curriculum Alignment	Understanding by Design and Differentiating Instruction	Onsite	6 hours	This workshop deals with What are the big ideas of the models, and how do they look in action? Beset by lists of content standards and accompanying "high-stakes" accountability tests, many educators sense that both teaching and learning have been redirected in ways that are potentially impoverishing for those who teach and those who learn. Educators need a model that acknowledges the centrality of standards but that also demonstrates how meaning and understanding can both emanate from and frame content standards so that young people develop powers of mind as well as accumulate an information base. For many educators, Understanding by Design addresses that need	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
General Education Alignment techniques	Standards, Curriculum and Assessment Alignment	Onsite	6 hours	Classroom strategies to align standards, curriculum, assessment and instructional practices	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y paraprofesionales: regulares, educación especial, limitaciones lingüísticas

Area Medular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
General Education Alignment techniques	Introduction to Understanding by Design	Onsite	6 hours	Introduces teachers in all grades and subjects to Understanding by Design (UbD) program for curriculum, instruction, and assessment. Participants must explore curriculum design, assessment tasks, and instructional strategies that promote student understanding in the context of standards and high-stakes tests	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
General Education Alignment techniques	Intermediate Understanding by Design	Onsite	6 hours	Helps practitioners understand and apply various aspects of Understanding by Design (UbD). It begins with an overview of the principles of unit design presented in the UbD framework. During the workshop, the learner will develop a unit based upon content standards, create appropriate assessments, and design instructional activities that ensure all students will be able to demonstrate genuine understanding	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
General Education Differentiation	Differentiating Instruction	Onsite	6 hours	Participants will examine the characteristics of a differentiated classroom; learn how to frame instruction around concepts and essential understandings; identify techniques for differentiating content, process, and product; and explore how to differentiate on the basis of students' readiness, interest, and learning profile.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Leadership	Leading by Design	Onsite	6 hours	Explore practical and proven processes, tools, and examples that assist administrators, teacher leaders, and policymakers in leading and sustaining standards-based education at the school or district level.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Leadership and General Education	Leadership Academy	Onsite	6 hours	LA is designed for coaches, math specialists, staff developers, and others who support the professional development of math teachers. With a focus on developing a reflective and purposeful practice, the LA activities address challenges leaders encounter in a role designed to support	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros

Area Medular	Titulo del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
				<p>robust math instruction. Institute participants will engage with a community of peers to work in depth with these materials that are based on a set of cases written by coaches and math specialists representing sites across the country. The program also provides opportunities to explore the mathematics of elementary school and to experience this mathematics from the perspectives of the student, the classroom teacher, and the coach. Participants consider issues of adult learning and analyze the process of teacher change. Institute participants examine the process of their own learning, and engage in discussion with coach colleagues to develop a deeper understanding of, and potential for, the coaching role. In addition, participants strategize with their coach colleagues and their team members attending other PD programs, and discuss features of their own systems that can be used to support mathematics professional development.</p>		
<p><b>Professional Learning Communities</b></p>	<p><b>Creating and Sustaining Professional Learning Communities</b></p>	<p><b>Onsite</b></p>	<p>6 hours</p>	<p>In this 6-lesson workshop , we have three objectives. The first is to investigate how contemporary school leaders communicate and collaborate with all stakeholders, including parents, teachers, administrators, community members, and district personnel, to promote the vision of improved student learning. The second objective is to discuss the roles of student improvement plans (SIPs), issues of change, and professional development in building the spiral of reform that facilitates successful learning communities. Finally, our third objective is to offer several strategies for instantiating and sustaining the learning community process</p>	<p>Pre &amp; Post tests, Teacher Manual, Problems and exercises, Case studies</p>	<p>Directores, Facilitadores, Maestros</p>



Area Medular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
General Education Strategies and Techniques	What Works in Schools: An Introduction	Onsite	6 hours	This workshop will introduce to the research conclusions presented by Robert J. Marzano in his best-selling publication <i>What Works in Schools: Translating Research into Action</i> . By the end of this workshop, the participant will develop a complete professional portfolio about these important ideas through interactive exercises, reflection activities, audio-visual excerpts, and readings from the work of both Marzano and other experts in educational reform	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
General Education	Leading and Sustaining Understanding by Design	Onsite	6 hours	In this workshop, educational leaders will examine specific actions for leading and sustaining Understanding by Design at the school and district levels.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y para profesionales: regulares, educacion especial, limitaciones linguisticas
General Education Assessment	Classroom Assessment Practices to Promote, as Well as Measure	Onsite	6 hours	In this workshop participants will explore the following essential questions: What does it mean to "think like an assessor?" How are different achievement targets most appropriately assessed? What is understanding and how is it revealed? What is "falling through the cracks" of conventional testing? And What classroom assessment practices promote learning, as well as measure it?	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
General Education	Effective Classroom Discipline Strategies	Onsite	6 hours	Educators evaluate their expectations of students' behavior and learn practical strategies to increase student responsibility, self-control and self-management. Teachers learn how to create a classroom environment that will allow them to spend the major part of their contact time in instructional activities.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Medular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
General Education Classroom management	Classroom Management with Models of Teaching	Onsite	6 hours	Participants learn strategies and techniques for managing students in the classroom. Students observe, analyze, and discuss a variety of teaching models including information processing, group investigation, social inquiry, inductive models, non-directive teaching models and problem-solving. Emphasis is on interpersonal relations, arrangement of space, management of time, working with individual students, small group and large group structures and working with content and process.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

TABLA DE OFRECIMIENTOS DE TALLERES

MATERIA: MATHEMATICS...

NIVEL: SECONDARY

Area Modular	Título del taller	Modalidad	Duración	Descripción	Duración	Personal a impactar
<b>Math (ALL)</b> Numeration Algebra Geometry Measurement Data Analysis and Statistics	<b>Project-Based Learning</b>	<b>Onsite</b>	6 hours	This workshop engages participants in learning the principles for designing, assessing and managing standards-focused projects as well as using performance assessments to judge the relevant work generated by 21st Century learners.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Math (ALL)</b> Numeration Algebra Geometry Measurement Data Analysis and Statistics	<b>Integrated Mathematics</b>	<b>Onsite</b>	6 hours	This workshop encourages teachers to learn and use mathematical tools to explore a broad range of real-world themes. Teachers learn how to use a discovery approach and promote collaborative learning and integration with other content areas.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Algebra</b>	<b>Patterns, Functions, and Algebra</b>	<b>Onsite</b>	6 hours	Explores the "big ideas" in algebraic thinking, such as finding, describing, and using patterns; using functions to make predictions; understanding linearity and proportional reasoning; understanding non-linear functions; and understanding and exploring algebraic structure	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Math (ALL)</b> Numeration Algebra Geometry Measurement Data Analysis and Statistics	<b>Discrete Mathematics with Applications</b>	<b>Onsite</b>	6 hours	Teachers will see the connections among mathematical topics and real-life events and situations, while sharpening their problem solving, mathematical reasoning and communication skills	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Math (ALL)</b> Numeration Algebra Geometry Measurement Data Analysis and Statistics	<b>Modeling mathematics</b>	<b>Onsite</b>	6 hours	Mathematical modeling and a data-driven approach to exploring functions helps students deepen their mathematical skills and maturity.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Medular	Título del taller	Modalidad	Duración	Descripción	Duración	Personal a impactar
Numeration	Number sense	Onsite	6 hours	Participants develop and compare mental computation strategies. investigate the variety of uses of numbers, explore the connections between counting, number names, place values, and basic operations; and they use number grids to identify patterns in the natural numbers, and review factors, multiples, and primes; explore the family of real numbers, including the natural (counting), negative, rational, and irrational numbers	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Numeration	Proportional Reasoning	Onsite	6 hours	Participants work with an area model, a discrete model, and a linear measurement model for fractions. They make wholes from fractional parts, describe fraction combinations with addition sentences, connect fraction names to parts of groups, and find familiar fractions that are close in size to unfamiliar fractions.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Maestros y para profesionales: regulares, educación especial, limitaciones lingüísticas
Data Analysis	Data Analysis	Onsite	6 hours	Participants gather, observe, and describe data in terms of individual features and overall distribution. Line plots and other representations are constructed. Statistical concepts, fractional parts, and percentages are used to compare data sets.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Maestros y para profesionales: regulares, educación especial, limitaciones lingüísticas
Geometry	Exploring Polygons	Onsite	6 hours	Participants review the defining properties of polygons and derive a working definition of a polygon by comparing characteristics of examples and counterexamples.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Maestros y para profesionales: regulares, educación especial, limitaciones lingüísticas
Geometry	Space Odyssey: Solid Figures	Onsite	6 hours	Participants review and construct geometric solids, investigate two-dimensional representations of solids, and reflect on the substantial, informal experience children have with three-dimensional figures	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Maestros y para profesionales: regulares, educación especial, limitaciones lingüísticas
Algebra	Mathematics of Change	Onsite	6 hours	Participants are introduced to the Mathematics of Change. They fit stories and graphs of changes over time to tables, tables to stories, and stories to graphs.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Maestros y para profesionales: regulares, educación especial, limitaciones lingüísticas

Area Modular	Título del taller	Modalidad	Duración	Descripción	Duración	Personal a impactar
Algebra	Linear Functions	Onsite	6 hours	Linear Functions introduces algebra through the mathematically cohesive concept of functions and grounds it by modeling real-life situations.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Maestros y para profesionales: <i>regulares, educación especial, limitaciones lingüísticas especial, limitaciones lingüísticas</i>
Algebra	Quadratic Functions	Onsite	6 hours	By modeling and problem solving, learners identify and describe the characteristics of quadratic functions. Learners adapt curriculum materials to enrich their teaching of quadratic functions and equations, and also come away with a tangible benefit—interactive software and activities to use with students (along with alternative activities for classrooms that lack computer resources.)	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y para profesionales: <i>regulares, educación especial, limitaciones lingüísticas</i>
Geometry Algebra	Unit circle And basic trigonometry	Onsite	6 hours	This workshop focuses on how to teach the trigonometric functions using the unit circle approach	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Algebra	Lineal algebra	Onsite	6 hours	Content mathematical knowledge in: Equation systems, matrices and determinants teaching.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Geometry	Logic	Onsite	6 hours	Content mathematical knowledge in elementary mathematics logic	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Numeration	Number systems	Onsite	6 hours	Content and pedagogical mathematical knowledge in integers, rational and real numerical systems	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y para profesionales: <i>regulares, educación especial, limitaciones</i>

Area Medular	Título del taller	Modalidad	Duración	Descripción	Duración	Personal a impactar
ALL STANDARDS	Topics in Pure and Applied Mathematics	Onsite	6 hours	Topics will be chosen according to the interests	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y para profesionales: regulares, educación especial, limitaciones

**TABLA DE OFRECIMIENTOS DE TALLERES**

**NIVEL: ELEMENTARY SECONDARY**

**MATERIA: LANGUAGE ARTES (ENGLISH AND SPANISH)**

Area Medular	Título del taller	Modalidad	Duración	Descripción	Materials	Personal a impactar
Reading / Writing Compreension Lectora escritura	Literacy Strategies	Onsite	6 hours	This workshop is a great resource for teachers who need to help students improve understanding of textbooks and develop thinking skills critical to success in secondary education. It is rich in its ideas, and substantiates recommendations with excellent research findings. It deals both with skills and motivational needs of poor readers as they progress through the grades.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Writing Escritura	JOURNAL WRITING in the CLASSROOM	Onsite	6 hours	Self-reflective abilities are an essential part of emotional and cognitive development, and journal keeping is a proven way to develop creative self-reflection. Several formats and techniques will be provided by the instructor to help teachers take control of their own professional development, and to introduce journal writing to their K-12 students or fine-tune current practices	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Writing Escritura	TELLING OUR STORY: Personal Narratives For Young Writers	Onsite	6 hours	Study children's literature in order to 'read like a writer' and use this knowledge to create authentic classroom lessons. Create craft lessons that engage your students in the process of writing strong leads and endings. Teach revision and editing skills by using enticing tools.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Compreension Lectora	Contemporary Fiction	Onsite	6 hours	Go into depth with one author or several and focus on a theme. This is an enjoyable way to enrich your literature curriculum. For secondary teachers, librarians and administrators, and also middle school and Special Ed teachers	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Modular	Título del taller	Modalidad	Duración	Descripción	Materials	Personal a impactar
Reading Comprehension Lectora	MYTH AND LEGENDS	Onsite	6 hours	Teachers will adapt The Power of Myth by Joseph Campbell, and study myths across various cultures relating to a variety of themes of choice, such as myths of the hero, change, old age, defeat, rebirth and many more. You will develop lesson plans to integrate with social studies and literature classes	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Comprehension Lectora	Essay for school students (English and Spanish)	Onsite	6 hours	This workshop engages teachers in the creative environment of the essay. Provide skills and tools for teaching poetry to elementary and secondary school teachers	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Comprehension Lectora	Novels for school students (English and Spanish)	Onsite	6 hours	This workshop engages teachers in the creative environment of the novel. Provide skills and tools for teaching poetry to elementary and secondary school teachers	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Comprehension Lectora	Poetry for school students (English and Spanish)	Onsite	6 hours	This workshop engages teachers in the creative environment of poetry. Provide skills and tools for teaching poetry to elementary and secondary school teachers	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Writing Comprehension Lectora Escritura	Teaching Reading & Writing for the Early Childhood	Onsite	6 hours	Participants review and discuss whole language, balanced literacy, effective teaching strategies, use of research-based literacy programs, literature-based instruction, use of different assessment tools to inform instruction, standards-based instruction, federal funding, culture, and democracy	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Comprehension Lectora	Integration of Children's Lit. in Early Childhood & Elementary Curriculum	Onsite	6 hours	This course introduces some of the best literature—children's, Young adult, adult and contemporary—and helps children become lifelong learners and readers.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency



Area Modular	Título del taller	Modalidad	Duración	Descripción	Materials	Personal a impactar
ALL	Project-Based Learning in Middle and High Schools	Onsite	6 hours	This minicourse examines the educational research and theories in the area of teaching, learning, and human development and how it can be applied to educational practices in middle and high school classrooms. The focus of the course is on project-based learning and includes the teacher's role and responsibilities in learning, and the motivational strategies that support an effective learning environment, and the design of authentic learning experiences.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Writing Comprehension Lectora Escritura	Integration of Reading & Writing	Onsite	6 hours	Participants acquire knowledge of the Puerto Rico English Language Arts Standards and Frameworks. Many genres of literature are explored, along with basic literacy elements and techniques. These include the necessary basics of the English language with emphasis on correct grammar, usage and composition.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Reading Writing Comprehension Lectora	Teaching Reading and Writing to ESL Students	Onsite	6 hours	This course will provide a comprehensive analysis of reading and writing theory with practical classroom applications for ESL learners. This will enable students to provide a balanced, comprehensive program of instruction with explicit and meaningfully applied instruction in reading, writing, and related language skills and strategies for ESL learners	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

**TABLA DE OFRECIMIENTOS DE TALLERES**

**MATERIA: SCIENCE**

**NIVEL: ELEMENTARY AND SECONDARY**

<b>Area Modular</b>	<b>Título del taller</b>	<b>Modalidad</b>	<b>Duración</b>	<b>Descripción</b>	<b>Materiales</b>	<b>Personal a impactar</b>
<b>Energy</b>	<b>Integrating Climate Change into the Classroom</b>	<b>Onsite</b>	<b>6 hours</b>	Global climate change remains one of the hot issues in science, both politically and environmentally. Explore local/global effects of climate change - such as the loss of polar ice fields. You will navigate through tools easily incorporated into your classroom, such as interactive ice monitoring web sites, simulations, videos, educational/scientific blogs and podcasts.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Energy</b>	<b>Alternative Energy Sources</b>	<b>Onsite</b>	<b>6 hours</b>	Alternative energy sources such as solar power, wind power, tides, fuel cells, hydrogen, and hybrid automobiles will be explored in this course for secondary teachers. Using an extensive selection of on-line resources you will explore these and more: our current energy system, home energy consumption, geopolitical and the environmental issues surrounding the global energy situation.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>Change</b>	<b>Ecology and Sustainability</b>	<b>Onsite</b>	<b>6 hours</b>	Explore the interaction of humans, plants and animals and the effects of industrialization and over-population on earth's health and sustainability	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
<b>ALL</b>	<b>Google Earth Across the Curriculum</b>	<b>Onsite</b>	<b>6 hours</b>	Participants in this workshop will learn how to download and use the Google Earth program, explore many of the interactive datasets that can be merged with Google Earth, create a Google Earth Tour, investigate websites that offer Google Earth lesson plans and ideas, and will create a GE teaching unit for	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Medular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
Interactions Weather	Atmosphere and Weather	Onsite	6 hours	their classroom This course on the Earth's atmosphere will involve curriculum materials for your class that incorporate various skills such as measuring, observing, hypothesizing, and predicting and critical, inter-disciplinary issues such as air pollution, ozone depletion, and global warming provide. Appropriate for teachers of grades 3-12	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Science (ALL)	Internet Activities for K12 Science Teaching	Onsite	6 hours	Explore and integrate into your teaching activities in earth science, biology, astronomy, chemistry, physics and more. K-12 teachers in this course will visit, utilize, and critique web sites as well as research and share their own favorites	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Science (ALL)	Making Science: 9- 12 Hands-on Science Experiments	Onsite	6 hours	Use fun learning activities to teach grades 9-12 students about themselves and their environment. Activities can be done with minimal materials found around a typical home or school, and although simple, will challenge and reinvigorate your students' love for science	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Physics	PHYSICS for the K-12 TEACHER	Onsite	6 hours	Physics is the air we breathe, the water we drink, all the sights and sounds around us, and it doesn't have to be as difficult as some people think. Activities in this course include suggestions from Janice Van Cleave's book <i>Physics For Every Kid</i> .	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Interactions	SUSTAINABILITY for YOUR CLASSROOM	Onsite	6 hours	Discover dozens of ways to involve your students in fun environmentally sustainable, earth-friendly projects. Learn how to create native plant gardens, water and energy conservation programs, recycling and	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Modular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
Interactions, Systems and Models Astronomy	THE UNIVERSE	Onsite	6 hours	Utilizing multimedia resources and experiential activities, you will explore the birth of galaxies, biodiversity, Earth's evolution, photosynthesis, Gaia theory and human ecology. The Universe Story is an integrating theme combining holistic and creative learning relevant to social studies, health, science, ecology and art	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Physics Chemistry	Modeling Instruction in High School Physics, Chemistry, Physical Science, and Biology	Onsite	6 hours	This workshop cultivates physics teachers as school experts on effective use of guided inquiry in science teaching, thereby providing schools and school districts with a valuable resource for broader reform.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Algebra Physics Chemistry	Algebra-Integrated Physics and Chemistry	Onsite	6 hours	This workshop are called "Algebra-Integrated Physics and Chemistry". These workshops are designed to introduce the teachers to mathematical modeling of physical and chemical phenomenon.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
ALL STANDARDS	Topics in Science Research	Onsite	6 hours	Strategies for Scientific Research	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y para profesionales: regulares, educación especial, limitaciones

**TABLA DE OFRECIMIENTOS DE TALLERES**

**NIVEL: ELEMENTARY AND SECONDARY**

**MATERIA: TECHNOLOGY**

Area Medular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
Technology in Education	Integration of Technology & Computer Applications in the Classroom	Onsite	6 hours	The use of information technology in the classroom and, in particular, the internet, as tools for teaching has been growing exponentially since the advent of personal computers in classrooms. The spillover factors of home use for both students and instructors have created many new opportunities for teaching and learning. In this course teachers become familiar with the basic concepts of utilizing and harnessing this technology in their everyday classroom teaching and beyond.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Technology	INTERNET LITERACY: Empowering Youth in a Digital World	Onsite	6 hours	This workshop will help you effectively learn to use the Internet for teacher planning and instruction, and provide options for productive student usage of the Internet	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Technology	WEB 2.0: Powering Up With Latest Web Technology	Onsite	6 hours	In this workshop you will use Twitter, Delicious, WordPress, Wikis, blogging, RSS; to enhance your K-12 curriculum.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Directores, Facilitadores, Maestros y para profesionales; regulares, educación especial, limitaciones lingüísticas
Technology	OFFICE 2010 and curriculum	Onsite	6 hours	In this workshop you will use Office Tools to enhance your K-12 curriculum. This workshop will be tailored (as the other ones) following School Comprehensive Plan	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

Area Modular	Título del taller	Modalidad	Duración	Descripción	Materiales	Personal a impactar
Technology	Engineering the Future	Onsite	6 hours	This concentrated, hands-on workshop is open to all teachers interested in expanding their knowledge of standards-based engineering design	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Technology and Math (All Standards)	Technology in Mathematics Learning & Teaching	Onsite	6 hours	This minicourse provides teachers with a strong foundation in effectively using technology in mathematics classrooms, K-8. They develop and implement comprehensive lessons using calculators, graphing calculators, computer graphing, algebra and geometry software, and Internet resources for teaching mathematical concepts and skills. This course makes educational technology an integral component of the teaching, learning, and assessment of mathematics instruction and learning.	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency
Technology and Science (All Standards)	Teaching Science & Technology in the Elementary and Secondary Curriculum	Onsite	6 hours	This minicourse provides the knowledge, tools and methods for making early childhood and elementary science an exciting, hands-on learning experience for children. Educators learn how to develop lessons that address student experimentation and design techniques using readily available materials. Safe laboratory practices for the classroom are also addressed. A standards-based approach to science education is our template for lesson development, covering the major domains in science: life, physical, earth, inquiry-applied and engineering technology; and historical scientific discoveries in each area. Alignment of curriculum is emphasized; national benchmark standards in elementary science are also supported	Pre & Post tests, Teacher Manual, Problems and exercises, Case studies	Principals, Core Subject Teachers, Special Education Teachers, District Facilitators, Limited Spanish Proficiency

**TABLA DE COSTOS \***

MODALIDAD	PERSONAL A IMPACTAR	NIVEL (ELEMENTAL, INTERMEDIO Y SUPERIOR)	COSTO POR PARTICIPANTE	COSTO POR GRUPO	CANTIDAD DE PARTICIPANTES POR GRUPO (MÍNIMO)	DURACIÓN DEL TALLER O SERVICIO	RECURSO CON MAESTRIA	RECURSO CON DOCTORADO
Workshops and trainings	Principals, Core Subject Teachers, Special Education Teachers, Limited Spanish Proficiency, Districts facilitators	ALL LEVELS	165.00 (per workshops 6 hours)	3,300	20	6 hours	x	x
** Mentoría o "Coaching" (from workshops)	Principals, Core Subject Teachers, Special Education Teachers, Limited Spanish Proficiency, Districts facilitators	ALL LEVELS	\$75.00 por maestro per visit M.A. \$125.00 por teacher per visit Ed.D	Es individual N/A	1 maestro individual	Según las necesidades del solicitante	X	X
** Mentoría o "Coaching" (not from workshops)	Principals, Core Subject Teachers, Special Education Teachers, Limited Spanish Proficiency, Districts facilitators especial, paraprofesionales Facilitadores	ALL LEVELS	\$75.00 por teacher por visita M.A. \$125.00 per teacher por visit Ed.D	Es individual N/A	1 maestro individual	Según las necesidades del solicitante	X	X
Residencial	La Modalidad en la cual se darán los talleres será establecido por el solicitante de servicios en acuerdo con el suplidor. La Modalidad de residencial tiene que estar contemplada en el PCE de la escuela al momento de darse el servicio.							

\* No se puede incluir materiales tales como: programados y libros. Estos deben seguir el proceso de compra de la agencia.

\*\* Este servicio incluye la visita a la sala de clases, la asistencia técnica correspondiente a la visita (en la sala de clase) y el seguimiento en la implantación de las estrategias de los talleres.