

# Alberto Alvarado

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*“Albert was an excellent student and athlete when he attended H.S. at Luther Burbank. He continues to be a positive influence on the community of Burbank and have seen him grow as a Coach and a Teacher.*

Dr. Raymond Reyes  
Retired Math Teacher and  
former Football Coach

*“Albert was a great student at Burbank and was under my instruction for 3 years. When he returned 4 years later as an instructor I have seen how he developed as a student of mathematics. Now in his 7<sup>th</sup> year of teaching he has become an excellent educator and continues to grow in his craft.*

Brian Warren  
Retired Teacher, Former Head  
of Math Department, Former  
Teacher of the Year

## Professional Profile

Currently a Lecturer of Mathematics at Texas A&M University. Students have been receptive towards my methods and I continue to search for new ways to effectively teach and serve the students and faculty of Texas A&M San Antonio.

## Education, Honors, and Certifications

### M.S. in Mathematics

University of Texas at Austin 2012

### Bachelor of Science in Mathematics

University of Texas at Austin 2007

### Minor in Business Administration

University of Texas at Austin 2007

### Provisional Certifications

Classroom Teacher Mathematics (8-12)

Master Teacher Mathematics (8-12)

### Programming Certification

SAS 9.4 Programming Fundamentals

### Other Technical Skills

R and RStudio

## Work Experience

**Sporti-** In April of 2023 I was offered a position to Coach my kids' teams at Sporti when the then head coach and former professional soccer player from the Ukraine decided to step down. The owner came on a game day where my son scored 4 goals and shortly thereafter I was offered a position as the head coach. I inherited 4 soccer teams and have enjoyed building relationships and developing my kids and other youth through the love of soccer.

### Texas A&M University San Antonio (2016 to present)

At Texas A&M San Antonio I am a Full Time Lecturer and have taught courses in College Algebra, Introductory Statistics, BioStatistics, Mathematics for Business and Social Sciences II, Fundamentals of Mathematics I, Fundamentals of Mathematics II, Biology and Medicine, Biology and Medicine Lab, College Algebra Corequisite, College Algebra Corequisite Lab and Statistical Methods.

In 2023 Dr. Bala offered me a position as the PREP Site Coordinator as an extension to UTSA's PREP program. Through intensive preparation and coordination of the program after navigating the vast bureaucracy of UTSA and TAMUSA to bring in a summer camp we achieved our goal and officially relaunched the PREP program at TAMUSA. I coordinated

*"I have grown up with Albert and have known him since Elementary. He started at Burbank a year before I did and helped me make the transition between student and first year teacher. He has positively impacted students and has also had an influence on my current teaching practices. We continue to grow, plan, and discuss best practices for our students."*

Dora Rodriguez  
Mathematics Teacher  
Burbank High School  
Lake Travis High School  
Fellow Longhorn Graduate  
Lifelong Friend

*"He makes difficult math subjects easy for students who have never felt the joy of understanding math."*

Steve Twining PhD  
Owner/ Area Director  
ClubZ! In Home Tutoring  
Services, San Antonio, Tx

Year 1 PREP Course in Math and Logic with UTSA PREP team and my Instructor and Peer Assistant Mentor who ran the class wonderfully. Additionally, I coordinated the logistics of lunch and worked closely with Food Bank officials to ensure that students had an opportunity for a warm lunch every day. Additionally, I organized 7 speakers into our speaker series to give students a taste of various STEM careers and organized the closing ceremony that had full attendance by Year 1 families. Overall, parents seemed to be very satisfied with the program at Texas A&M San Antonio and according to UTSA PREP Director Dr. Araceli Ortiz the launch of PREP was a huge success!

During the month of July I assisted Dr. Jingbo Liu by analyzing data set that her undergraduate students worked hard to produce throughout the summer months. I then created a presentation to summarize the analysis and presented this to Dr. Liu's students through the use of R and RStudio. This was pivotal for her students to present their paper in a symposium shortly thereafter. I was honored to be a contributing author alongside Jingbo Liu and her students.

*Alberto Alvarado, Jingbo Liu, Oluwatobi Oguntuase\*, Syrus Redhouse\*, Matthew Trevino\*, and Liliana Villanueva\*. (\*Undergraduate coauthors)  
A probabilistic/statistical study on the parameter  $\alpha$  in the LLL-algorithm regarding some intrinsic quantities of a lattice.*

I continued work as an advisor for the Health Professions Advisory Committee. I worked and met with approximately 11 students in the 2023 thusfar and more to come in the Fall. I really enjoy working one on one with students to help and guide them in their future ambitions.

In 2022 I was asked to join the MPES Peer Teaching Observation Committee with Qi Han, and Bob Shelton. Within this committee we were tasked with preparing the procedures for Peer Teaching Observation. Over several meetings, feedback from peers, and many email exchanges we have created the Peer Observation Framework and Table & Rubric documents. We are in the final stages of completing the work for this committee. We currently need to receive final feedback from faculty, create FAQs, and begin the Peer Teaching Observation within the MPES.

I continued to work in the Learning Communities courses in my College Algebra class. I have further developed modules from previous years that have students thinking about their grades and the importance of keeping them up from the beginning of the semester. Using algebraic models they are able to calculate the grades they need to attain a passing grade in courses under various formats. Additionally, students become more aware of how their GPA is calculated and the importance of their Freshman and Sophomore years.

I also participated in the ECourse Software development for Introductory Statistics. This is still in development, however since the EDCP coordinators are no longer with us it has delayed the release of the course. The work for this is ongoing but it is in its final stages.

In the HPAC I have continued to mentor students for the health professions and regularly attend meetings. I recently recommended a

*“... consistently serves the best interest of the students by providing thought provoking lessons and additional support during tutoring times. His professional demeanor and insightful perspectives are evident in his positive rapport with his students.”*

James Fleetwood  
Mathematics Teacher  
Mathematics Adjunct Professor

fellow instructor from the Department of Counseling, Health, & Kinesiology to teach a Learning Communities course for HPAC.

In 2021 I participated in the ECourse Software development for College Algebra where I developed detailed outlines for lessons, weekly objectives for the course, and a Blackboard Course Shell with the help of our EDCP coordinator Raffy Macapinlac. I also began work on ECourse Software for Introductory Statistics Blackboard Shell. In the HPAC (Health Professions Advisory Committee) headed by Malin Lilley I have taken on advisees in Occupational/Physical Therapy. In the HPAC I have invited guest speakers including occupational therapists and a nurse to come speak at events hosted by HPAC. Additionally, for the second year in a row I was part of a subcommittee within HPAC that selected a student for the Summer Undergraduate Research Program hosted by A&M's College of Medicine. I have recruited several members into HPAC after discussing with students their future aspirations and discovering their interest in health professions. I was part of the Carnegie Community Engagement Committee where my team worked towards identifying programs and initiatives in the University that satisfied the Carnegie requirements with the goal of attaining the Prestigious Carnegie Classification for Texas A&M San Antonio. I was part of the College Preparatory Course Partnership between TAMUSA, UTSA, and Alamo Community Colleges and worked on a Memorandum of Understanding helping to make TAMUSA a new partner into College Preparatory Course Partnership. An ongoing goal of this committee is to align this course to meet post-secondary mathematics standards. In 2021 I began as an advisor in Faculty Advising Program where I mentored a group of students through a series of meetings where we ate and conversed. I am a St. James Parish Pastoral Council member. Within this council we meet with the Pastor of the parish to discuss ongoing issues within the church including ongoing construction, parish plans, fundraisers, and other pastoral issues. Additionally, I participate as a reader within the church. I teach Sunday school to students alongside with my wife where we had the opportunity to teach 2nd graders including my daughter where she will be making her First Communion. I was on an advisory committee at my children's school at Great Hearts Western Hills where we met throughout the school year advising on the overall operations of the school alongside teachers and administrators.

In 2020 I became part of learning community through College Algebra class where students take this course in combination with their Freshman Seminar which includes cooperative projects between the two courses. Joined the Health Professions Advisor Committee (HPAC) where we would meet regularly throughout the semester and I served in an advisory role for students that were interested in joining Health Professions.

In 2019 I assisted with the effort in Harlandale Tutoring. Became part of the College Course Partnership Cooperative, a group that made decisions regarding High School and College Credit between Alamo Community Colleges, UTSA, and TAMUSA. Joined a committee for Advanced Academic Planning with Southwest Legacy High School

**University of The Incarnate Word (2016 to 2019)**

At the University of The Incarnate Word I have taught courses in College Algebra in which during my first semester students were able to experience a high success rate and according to surveys seemed to be very satisfied with the instruction they received. Coordinated a Summer Prep program where students were guided through Online Math Modules and in person support for students transitioning into UIW from High School. The goal of this program was for students to complete the modules, pass the Accuplacer exam, and start their college careers with College Algebra rather than remedial math.

#### **Hallmark University (2015 to 2017)**

Taught courses in College Algebra (online, hybrid, and in class) Calculus Online, Business Statistics I Online, and Business Statistics Online II. Algebra and Calculus were taught with Webassign.net. Business Statistics was taught with the use Blackboard quizzes and online discussions amongst students on weekly topics during 8 week terms.

#### **Sanford Brown College (2015)**

Taught two College Algebra courses at Sanford Brown with a spectrum of students of all ages and all levels with great success.

#### **Luther Burbank H.S. (2007-2016)**

Working at Burbank along teachers that I had as a student has been a tremendous opportunity for me. With my experience in the school and familiarity with the community relating to students was very natural and rewarding for me. This experience in the community has transferred to TAMUSA as often times we get similar types of students that you would see in the inner city ISD schools.

Have taught all high school mathematics core courses including Algebra I, Algebra II, Geometry, Pre-Calculus, Advanced Quantitative Reasoning, Advanced Placement Statistics, and Advanced Placement Calculus. My students ranged from 9<sup>th</sup> through 12<sup>th</sup> grade and were a variety of learners including Gifted and Talented, Advanced Placement, a variety of Special Education students, and International Baccalaureate. As a high school teacher I consistently outperformed my peers teaching similar courses on State exams.

Was and Assistant Burbank Football Coach for 2 years which was during a time we took a team to the 2009 playoffs when they hadn't made it in the past 30 years. Was an Assistant Burbank Soccer Coach where we were able to train our Varsity athletes that eventually competed at the playoff level. I use my coaching experience to "coach" my students in performing at high levels of mathematics using the same rigor and intensity that I brought to the field of play.

#### **Key Qualifications**

Well versed in the 5E Lesson Model from the UTeach Program from the University of Texas at Austin. This program is being nationally replicated throughout the United States and has been mentioned by President George W. Bush and President Obama in their respective State of the Union addresses. Trained in various methods of teaching including Socratic methods of questioning, Bloom's Taxonomy, Project Based Instruction, Flipped Classroom, Inquiry Based Learning and Generative Design Lesson Plans pioneered by my University of Texas at Austin Professor Dr. Walter Stroup.

My students at the Texas A&M San Antonio University, University of the Incarnate Word, and Hallmark University have all seemed to be very appreciative of the instruction that I have provided. In Fall 2017 semester I taught 7 courses across the three Universities and the Spring semester I taught 8 courses. These challenging course loads have thoroughly prepared me for my current course loads. Additionally I use data to drive decisions when it comes to my instruction.

### **Experienced Online Educator**

With the Covid 19 Pandemic I have taught courses through the use of Zoom and Blackboard Collaborate. I was taught through an online distance learning program at TAMU College Station for my Master's Program in Statistics. This experience has prepared me to teach my own courses online and helped to make my transition to online teaching seamless.

Recently I have incorporated the use of R Coding Software in my Statistics and Biostatistics courses. This gives students knowledge on a powerful and free programming language that they can use to produce graphs and generate relevant analysis in Statistics.

Have designed, constructed, and tailored student activities for many different courses to fit the specific needs for the students that I've taught. Have also designed and used Powerpoints to enrich the learning environment and using frequent checkpoints for learning. Have also used Smartboard lessons to create dynamic learning environments for students to easily generate conceptual connections of mathematical topics. Also have been trained with Geometer's Sketchpad and Geogebra online software to illustrate clear connections between Geometric properties and their constructions. I am very fluent in applications of graphing calculator capabilities and it's applications in various math courses including Statistics and Calculus. In addition my tutoring business Straight A Tutoring has expanded into the online tutoring realm and has successfully tutored many students by means of Skype and Google chatroom. My services have increased many students performance in their math courses in significant and lasting ways. Straight A Tutoring has a 5 Star rating on Facebook.

### **Mentorship**

- As part of my Master Mathematics curriculum I became a mentor to middle school teachers where we engaged in an exchange of emails and online collaboration of best practices in the classroom. I also provided encouragement to fellow teachers to becoming Master Teachers.
- At Burbank I mentored several 1st year teachers that I still currently stay in contact with. It was never in an official capacity but I saw a need for mentorship to many new teachers that I have met along the way and I was compelled to share effective teaching strategies that I have discovered through my experience.

### **Professional Development in Education**

- Laying the Foundation, 2008-2012

- Advanced Quantitative Reasoning Professional Development, 2011
- AP Statistics Summer Institute at the University of Texas at Austin, 2009
- Currently pursuing Masters in Mathematics at The University of Texas at Austin, 2009 to present
- Student Teacher, Spring 2007 Austin ISD at Akins H.S.
- Participant in the Dynamic Geometry Project through the Texas State University, 2010 to 2011
- AP Calculus Summer Institute at the University of Texas at Austin, 2014
- ELL Training 2012
- GT Training 2013
- Inquiry Based Learning Institute (IBL) in Austin 2018

### **Student Experience**

Have taught all levels of students from 9th grade and above from a broad range of backgrounds and student abilities including At Risk students, Special Education students, Limited English Proficient students, Gifted and Talented, pre-advanced placement and advanced placement students, and International Baccalaureate. At the University level I have taught students ranging from 18 to 50 years of age at varying levels of Mathematics.

### **Professional Affiliations**

National Council of Teachers in Mathematics  
 Association of Texas Professional Educators  
 Alliance American Federation of Teachers

### **Relevant Coursework**

#### **Undergraduate Courses**

• Differential and Integral Calculus • Integral Calculus • Multivariable Calculus • Functions and Modeling • Linear Algebra and Matrix Theory • Knowing and Learning in Math and Science • Discrete Mathematics • Probability I • Adv Calculus For Applications • Linear Algebra and Matrix Theory • Introduction to Number Theory • Structure of Modern Geometry•

#### **Graduate Courses**

• Applied Statistics • Introduction to Real Analysis • Advanced Calculus For Applications II • Analysis and The Real Line • Geometry and Topology • Discrete Deterministic Chaos • Discrete Mathematics • Research in Mathematics • Topics in Probabilistic Statistics • Abstract Algebra • Statistical Computations • Advanced Programming SAS • Overview of Math Stat • Methods of Stat I • Regression Analysis •

### **About Me**

I have a passion for learning and a true love for the beauty of mathematics in all of its forms. There is nothing better as a teacher then to experience a student begin to see and appreciate the beauty of math. My roots are in the southside of San Antonio where I was raised and later came back as a teacher at my alma mater Burbank H.S. Both of my parents are immigrants from Mexico and they have worked hard to provide myself with opportunities to be where I am today. With 5 children and limited English

I know this was no easy task for them but they did so with the very faith and hard work they have instilled in me. Last but not least I have two beautiful little girls and a son that my wife and I proudly raise. My wife and children are my joy and I look forward to providing them with every opportunity for happiness and success.