

Vita for David Manuel

Contact Information

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Education

M.S. in Applied Mathematics, Texas A&M University, 1994
B.S. in Applied Mathematical Sciences, Texas A&M University, 1990
SBEC Certified Teacher, grades 6-12, State of Texas, 1991

Professional Career

2014 – present: Director of TA Training, Dept of Mathematics, Texas A&M University
2013 – present: Instructional Assistant Professor in Mathematics, Texas A&M University
2000 – 2005, 2008 – 2013: Senior Lecturer in Mathematics, Texas A&M University
2008 – 2014: Calclab Manager, Dept of Mathematics, Texas A&M University. Duties included managing personnel and curriculum related to Department MATLAB Laboratories
1999 – 2005, 2012 – 2014: Academic Advisor, Mathematics, Texas A&M University.
2005 – 2008: Senior Lecturer in Mathematics, Texas A&M University-Qatar
1995 – 2005: Part-time Mathematics Instructor at Blinn Community College
1994 – 2000: Lecturer in Mathematics, Texas A&M University
1993 – 1994: Graduate Assistant (Teaching) in Mathematics, Texas A&M University
1991 – 1993: Teacher, 7th grade Mathematics, Stephen F. Austin Middle School, Bryan, TX

Awards

2019 Outstanding Service Award, Texas A&M Department of Mathematics
2015 Distinguished Achievement Award in Teaching, Texas A&M College of Science
2009 Student Led Award for Teaching Excellence, Texas A&M University
2008 Student Led Award for Teaching Excellence, Texas A&M University
2004 Outstanding Service Award, Texas A&M Department of Mathematics
2000 Outstanding Teaching Award, Texas A&M Department of Mathematics
1994 Outstanding Graduate Assistant Teaching Award, Texas A&M Department of Mathematics

Teaching

Texas A&M 1994-present:

137 sections of MATH 131/142 (including 1 honors section), MATH 151/171, MATH 152/172, MATH 251/253, MATH 141/166, MATH 365/366, and MATH 696

Week in Review: 97c (131), 98a (151), 99c (151), 04c (171), 05a (172), 09c (151), 10c (152), 15c (166), 16a (166), 16c (166), 17a (166), 17c (166), 18a (131), 18c (131)

Course Coordinator: MATH 131 (97c, 18a, 18c); MATH 151 (10a, 11a, 12a, 13a); MATH 152 (10c, 12c), MATH 166 (16c, 17a, 17c, 19a)

Blinn Community College (1995-2005): 37 sections of the following classes: Math 0312, Math 1314, Math 1324, Math 1325, Math 2412, Math 2413

Curriculum Development

2019: Designed Python curriculum for MATH 151/152
2016: Designed *Calculus with MATLAB* for use with Cody Coursework of MathWorks
2014: Designed Math 696, Mathematical Communication and Technology to train new graduate students to teach
2013: Designed instructional videos to accompany *MATLAB: An Introduction with Applications*, Gilat, Wiley & Sons, Inc., 5th edition
2011 – 2014: Worked with Phil Yasskin on Matlab/Maplet lab curriculum for MATH 151/152
2007 – 2014: Designed MATLAB Curriculum for MATH 151/152, Texas A&M University and Texas A&M University-Qatar
2010 – 2012: Worked with Amy Austin on pilot redesign of MATH 151/152 (Engineering Calculus I and II) computer lab and recitation for Engineering Cluster sections
2008: Designed Credit-by-Exam and Credit-by-Exam Templates for MATH 151/152 (Engineering Calculus I and II), Texas A&M University-Qatar
2008: Created Instructional Videos over Precalculus topics in coordination with the Texas A&M University Department of Mathematics Placement Exam
2000: Worked with Mike Stecher and Patti Wells on *WebAlg*, a Web-based College Algebra course used in MATH 150 (Precalculus)

Service

2018 – present: Member, College of Science/College of Engineering Math Task Force Committee
2018 – present: Member, IT Security Committee
2015 – present: Faculty, Posse Immersion Program, Texas A&M University
2012 – present: Creator and Coordinator, TAMU Derivative Bee
2011 – present: Coordinator, TAMU Integral Bee
2008 – present: Member, Department of Mathematics Outreach Committee
2002 – present: Instructor at middle school Summer Educational Enrichment Program (Assistant Director 2009 – 2013; co-Director 2014 – present)
2012 – 2018: Member, Online Homework Committee
2017: Member, MATH 152 Alignment Committee
2000 – 2004, 2008 – 2016, 2018: Member, Dept of Mathematics HS Contest Committee
2010 – 2013: Cross-campus Coordination of MATH 151/152 with TAMU-Qatar
2008 – 2014: Member, Department of Mathematics Engineering Math Committee
1999 – 2005, 2009 – 2014: New Student Conference registration for freshman/transfer students.
2011: Chair, Subcommittee L (responsible for Senior Lecturer promotion process)
2010: Member, Subcommittee L
2010 – 2011: Member, Lecturer Core Committee
2008 – 2010: Member, Brazos Valley Math Teachers' Circle
2008: Coordinator of the first “Gulf Cooperation Council Math Olympiad in Doha, Qatar”
2007 – 2008: Member, Qatar Math Standards Committee, Education Institute, Supreme Education Council, State of Qatar
2006 – 2007: Member, Dean's Faculty Advisory Council, Texas A&M University-Qatar

2004 – 2005: Member, Dean's Faculty Advisory Council, TAMU College of Science
2004 – 2005: Faculty Advisor, Aggie Locks of Love
2002 – 2005: Member, Department of Mathematics Undergraduate Curriculum Committee
2002: Member, Math 171/172/221 course restructuring committee
1996: Member, Math 151 Common Exam Committee

Professional Talks

2017, “*The Evolution of TA Training at Texas A&M*”, MAA/AMS Joint Math Meetings
2010-2013, “*Group Theory of the Rubik's Cube*”, Mentoring Through Critical Transition Points Pre-REU seminar
2009-2010, “*Enrichment Activities for Middle School Students*”, Conference for the Advancement of Mathematics Teaching
2008, “*Proofs of the Pythagorean Theorem*”, Brazos Valley Math Teachers' Circle
2008, “*SEE-Math: Summer Educational Enrichment at Texas A&M for Middle School Students*”, Conference for the Advancement of Mathematics Teaching
2007, “*Sets and Groups*”, Professional Development, Al-Bayyan Independent Secondary School
2007, “*Toothpicks, Triangles, Tangrams, and Pythagoras*”, Qatar Math and Science Teachers' Association Conference

Presentations

2018, “*The Game of Set*”, SEE-Math
2018, “*Mathematical Games*”, SEE-Math
2018, “*To Infinity and Beyond*”, SEE-Math
2018, “*The Algebra of Rubik's Cubes*”, Mathematics and Statistics Fair
2017, “*Proofs Without Words*”, Summer Educational Enrichment in Mathematics (SEE-Math)
2017, “*Golden Ratio*”, SEE-Math
2017, “*Tangram Origami*”, TAMU Math Circle
2016-2017, “*Cryptography*”, SEE-Math
2015, “*Euler Circuits*”, SEE-Math
2010-2015, 2017-2018, “*Euler Numbers*”, SEE-Math
2007-2013, 2015-2017 “*Platonic Solids*”, SEE-Math
2014 – 2015, “*Rubik's Group Theory*”, (3-part mini-series) TAMU Math Circle
2012-2014, “*Pick's Theorem*”, SEE-Math
2012, “*Introduction to iClickers*”, TAMU Department of Mathematics
2012, 2016, “*Map Coloring*”, SEE-Math
2009, 2011, “*Pythagoras Proofs*”, SEE-Math
2009-2010 and 2014 “*Rubik's Group Theory*”, (4-part mini-series) SEE-Math
2008, 2010 “*Search Ranking*”, SEE-Math
2008, “*Mobius Strips*”, KOR Education School
2007, “*Mathematics Enrichment*”, after-school program for Middle School students at the American School in Doha
2002 – 2004, 2006-2007, “*Toothpicks and Pythagoras*”, SEE-Math
2004 – 2006, “*Venn Diagrams*”, SEE-Math
2003, “*Foundations of Calculus*”, Gear-Up Program for Port Isabel High School students

Other Information

Recent departmental teaching ratings (last 5 years):

2014 – 2018 Excellent

Publications/Grants/Research Projects worked on:

Supreme Education Council, State of Qatar, “*Qatar Math Standards Committee: Final Report and Recommendations*”, 2008

NSF, “*Writing for Assessment and Learning in the Natural and Mathematical Sciences*”, 2004 – 2008

NSF Texas Collaborative for Excellence in Teacher Preparation Grant, “*Aligning Math Courses with Texas Essential Knowledge and Skills*”, 2003