

**Curriculum Vitae  
MIENIE DE KOCK**

<b>PERSONAL INFORMATION</b>	
<b>ADDRESS</b>	1001 S. Leadership Pl. Killeen, TX, 76549  Room 217-N US
<b>WEBPAGE</b>	
<b>CONTACT DETAILS</b>	
<b>EDUCATION (1996 - 2008)</b>	
<b>Ph.D in Mathematics (Kent State University, Kent, OH, USA)</b>	
<b>2008</b> <b>DISSERTATION TOPIC</b>	- On absolute continuity and the range of vector measures.
<b>2008</b> <b>COURSES COMPLETED</b>	- Real Variables I: Metric Spaces, Differentiation and Integration. - Real Variables II: Hilbert Spaces, Functional Analysis. - Measure Theory: Integration theory, Martingales. - Non-linear Analysis: Non-linear models. - Math Statistics I: Sampling distributions, Loss functions. - Math Statistics II: Hypothesis Tests, Non-parametric procedures. - Probability Theory: Martingales, Expectation, Brownian motion. - Wavelets and applications. - Multivariate Statistics: Multiple regression, ANOVA
<b>MA in Mathematics (Kent State University, Kent, OH, USA)</b>	
<b>2008</b> <b>COURSES COMPLETED</b>	-College Teaching Math -Topology -College Teaching -Non-linear Analysis -Complex Variables -Statistics and Probability -Functional Analysis -Real Analysis
<b>MS Mathematics (North West University, Potchefstroom, South Africa)</b>	
<b>2001</b> <b>THESIS TOPIC</b>	-Operators defined by conditional expectation
<b>2001</b> <b>COURSES COMPLETED</b>	-Markov Chains and Monte Carlo Simulation -Computer Security -Visual Basic -Linear Algebra -Functional Analysis: Approximation theory -Abstract Algebra -Ordered Vector Spaces -Topology
<b>BS in Accounting (North West University, Potchefstroom, South Africa)</b>	
<b>COURSES COMPLETED</b>	- Accounting I- Models, Multivariate Statistical Analysis - Micro Economics - Macro Economics - Business Economics - Computer Science: C++, Pascal, Delphi, Assembler - Calculus I, II, III, Differential Equations, Linear Algebra, Analysis - Management

<b>WORK EXPERIENCE</b>			
<b>Institution:</b>	<b>Texas A&amp;M University – Central Texas</b>		
<b>Line of business:</b>	Education/Administration		
<b>Period of Service:</b>	August 2008 – Present		
<b>Title:</b>	<b>Assistant Professor in Mathematics (August 2008- Present)</b>		
<b>Job description:</b>	Teaching upper and graduate level Mathematics and Statistics classes.		
<b>Duties:</b>	<ol style="list-style-type: none"> <li>1. Design curriculum in Probability and teach a course to prepare students for the Probability (P1) exam.</li> <li>2. Teach undergraduate classes to prepare students for the 4-8 and 8-12 Mathematics Content Certification exam to teach Mathematics at the Middle and High School level. Prepare EC-6 students for the Mathematics portion of the certification exam.</li> <li>3. Serve as an advisor for students' Masters thesis and serve on thesis committees.</li> </ol>		
<b>Outcomes:</b>	<ol style="list-style-type: none"> <li>1. One student passed the P1 actuary exam. In process of creating a statistics course which will be approved for professional credit with the national actuarial societies.</li> <li>2. Both the 4-8 and 8-12 Math certification exams are content based. <ul style="list-style-type: none"> <li>Results for 4-8: <ul style="list-style-type: none"> <li>2012: 2 students passed</li> <li>2011: 2 students passed</li> </ul> </li> <li>Results for 8-12: <ul style="list-style-type: none"> <li>2012: 5 students passed (Scores were as high as 295/300)</li> <li>2011: 2 students passed</li> </ul> </li> </ul> </li> </ol>		
<b>Title:</b>	<b>Program Coordinator for Mathematics and Physics Department</b>		
<b>Job Description:</b>	Program Coordinator for the Mathematics and Physics Department. Building a new department and develop a masters program in Operations Research in cooperation with Ft. Hood army base.		
<b>Duties:</b>	<ol style="list-style-type: none"> <li>1. Develop and improve rigor in the Mathematics and Physics department</li> <li>2. Hire and train new Assistant Professors and adjuncts in the Mathematics Department.</li> <li>3. Develop Curricula and establish a connection with Ft. Hood (Army Operations Testing Command) in order to develop an MS in Math with a concentration in Operations Research.</li> </ol>		

Outcomes:	<p>1. Upon arrival in the Math Department, the certification exam results for 8-12 and 4-8 Math certification exam were at a 60% pass rate. 2012-2013 the rate improved to 86%</p> <p>2. Instrumental in hiring and training of  2 Tenure-track faculty member in Math Department  5 Adjunct faculty member  8 Graduate Teaching Assistants</p> <p>3. Responsible for training students/faculty members to use Mathematical software:  Maple  Geometer's Sketchpad  Geogebra</p> <p>3. Currently more than two students are enrolled in MS in Math program with concentration in Operation Research in collaboration with Operations Testing Command at Ft. Hood</p>		
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Classes taught:	Undergraduate:	Graduate:	
	•Fall 2008:		
	Ordinary Differential Equations	Real Analysis	
	Statistics and Probability	Dynamical Systems	
	Math Concepts I		
	•Spring 2009:		
	Principles of Statistics	Topics in Math: Number Theory	
	Numerical Analysis	Linear Algebra	
	Number Theory	Real Analysis II	
	Math Concepts II	Statistics	
	•Summer 2009	Selected Topics: Game Theory	
	Math Concepts III		
	•Fall 2009	Statistical Reasoning and Probability	
	Math Concepts I & III	Thesis (5 Students)	
	Survey of Mathematics		
	Statistics and Probability	Applied Linear Algebra	
	•Spring 2010	Probability and Statistic	
	Math Concepts II & III		
	•Summer 2010		
	Math Concepts I & II & III	Math topics: Math and the iPhone	
	•Fall 2010	Thesis (5 students)	
	Math Concepts I		
	Advanced Analysis	Statistical Reasoning and Prob	
	•Spring 2011	Thesis	
	•Summer 2011		
	Math Concepts I & II & III		
	Algebraic Functions		
	•Fall 2011		
	Math Concepts I		
	Algebraic Functions	Thesis	
	•Spring 2012	Topics in Secondary Math	
	Math Concepts II & III		
	Algebraic Functions		
	•Summer 2012		
	Algebraic Functions		
	Math Concepts III	Topics in Math: iPhone app	
	•Fall 2012	Topics in Math: History of Math	
	Math Concepts I, III	Thesis	
	Algebraic Functions		
	Math topics in Probability	Math and Technology	
	•Spring 2013		
	Math Concepts I		
	Ordinary differential equations		

Institution:	<b>Texas Bio-Science Institute</b>		
Line of business:	Research/Education		
Period of Service:	May 2009 – August 2009		
	May 2010 - August 2010		
	May 2011- August 2011		
	May 2012 – August 2012		
Job Description:	Project Manager for Mobile Application development.		
Job Objective / Purpose Statement:	Manage a project to develop a mobile application (Historic Mathematicians) supported by National Science Foundation. Managed the complete project including development, graphic design, submission etc.		
Duties:	<p>Project Management:</p> <ul style="list-style-type: none"> <li>• Train students to program in X-code.</li> <li>• Coordinate final completion of "Historic Mathematicians" I-phone Application</li> <li>• Submit application to Apple</li> <li>• Guide students to code same project in Java for Android.</li> </ul> <p>Guest speaker at Bio-Science Institute:</p> <ul style="list-style-type: none"> <li>• Annual talks at the Bio-Science Institute on Mathematics and I-phone App development.</li> <li>• Talks for recruiting students to Texas A&amp;M University-Central Texas.</li> </ul>		
Major Projects Completed:	<ul style="list-style-type: none"> <li>• I-phone application on Historic Mathematicians available for download from the Apple store.</li> <li>• Support students on Summer stipend from NSF-STEP grant: <ul style="list-style-type: none"> <li>2010: 3 students x \$2,500</li> <li>2011: 3 students x \$2,500</li> <li>2012: 3 students x \$2,500</li> <li>2013: 4 students x \$2,500</li> </ul> </li> </ul>		

<b>Institution:</b>	<b>Jarvis Christian College, Hawkins, TX</b>			
<b>Line of business:</b>	Education/Administration			
<b>Period of Service:</b>	August 2007 – July 2008			
<b>Job description:</b>	<b>Program Coordinator for Mathematics Department</b>			
<b>Duties:</b>	Responsible for building the Mathematics department.			
<b>Job description:</b>	<b>Associate Professor in Mathematics.</b>			
<b>Duties:</b>	1. Prepare students for the Math state exams (EC-6 and 4-8).			
<b>Classes taught:</b>	Ordinary Differential Equations Math Topics: Preparation for Math certification exam Calculus I An Introduction to Statistics Linear Algebra Math Topics: Methods of teaching Math with games			
<b>PUBLICATIONS</b>				
2001	Operators defined by conditional expectation.	Masters thesis, North West University, South Africa	De Kock	
2003	Characterization of conditional expectation in terms of positive projections.	American Mathematical Society - Contemporary Math 328	De Kock Grobler	
2005	Absolute continuity of vector measures and operators	Quaest. Math. 28, 4, 479-485	Choi, De Kock	
2008	Absolute continuity and on the range of a vector measure	P.h.d dissertation	De Kock	

2009	On the range of a vector measure	Journal of Operator Theory and Advanced Applications, 201, 285-292	De Kock Puglisi	
<b>PATENTS AND PRODUCTS</b>				
2012	Mathematicians through history iPhone application	Available for download from iPhone store	De Kock Narayanan	
<b>Grants and Funding</b>				
2006	International Travel grant funding	\$2,500		Kent State University
2008	Mini-Seed Grant	\$3,000		Tarleton State University
2009	NSF-STEP Grant/Summer Research experience	\$6,000		Texas Bio-Science Institute
2010	NSF-STEP Grant/Summer Research experience	\$6,000		Texas Bio-Science Institute
2011	NSF-STEP Grant/Summer Research experience	\$8,500		Texas Bio-Science Institute
	Faculty development Funding	\$2,500		Texas A&M University-Central Texas
2012	NSF-STEP Grant/Summer Research experience	\$8,500		Texas Bio-Science Institute
2013	NSF-STEP Grant/Summer Research experience	\$11,000		Texas Bio-Science Institute
2013	CSE Solar Energy Public-Private Research Project (Co-PI)			Texas A&M University – Central Texas
<b>Awards</b>				
2002	African Community Association Scholarship	\$1,000		Kent State University
2003	National Collegiate Mathematics Award			US Achievement Academy, Kentucky
2004	Finalist in distinguished teacher award.			Kent State University
2006	University Fellowship	\$9,000		Kent State University
2013	Finalist for distinguished graduate faculty award: Teaching.			Texas A&M University – Central Texas
2013	Finalist for distinguished graduate faculty award: Scholarship.			Texas A&M University – Central Texas
<b>Presentations at Conferences</b>				
2012	International conference on Mathematics, Science and Technology	iPhone application on historic mathematicians and virtual manipulatives.		University of South Africa, Kruger National Park.
2007	18th International Workshop on Operator Theory and its Applications	On the range of a vector measure.		North-West University, Potchefstroom, South Africa

2006	Fifth conference on Function Spaces	Vector measures	Southern Illinois University - Edwardsville
2002	Fourth conference on Function Spaces	Conditional expectation defined by operators.	Southern Illinois University - Edwardsville
2001	National Conference of the South African Mathematical Society	Conditional expectation.	University of Durban, South Africa
<b>Conferences/Workshops attended:</b>			
2012	Chancellor's Education Summit	Austin, TX	
2011	Chancellor's Education Summit	Austin, TX	
2011	Avid Summer Institute	Dallas, TX	
2010	Chancellor's Education Summit	Austin, TX	
2009	Chancellor's Education Summit	Austin, TX	
2006	Informal Analysis Seminar	Kent State University, OH	
2006	Second meeting on Vector Measures and Integration	University of Seville, Seville, Spain, EU	
2006	MAA Ohio sectional meeting	New Concord, OH	
2005	Teaching conference of the university teaching council	Kent State University, OH	
2004	American Mathematical Sectional Conference	University of Pittsburgh, PA	
2003	Third International Conference on Abstract Analysis	South African Mathematical Society, Berg and Dal, Kruger National Park, South Africa.	
<b>Skills</b>			
MS Word, Office, Powerpoint, Excel		Intermediate	
Pages, Keynote, Numbers		Intermediate	
X-code, Dashcode		Intermediate	
SPSS, Minitab		Intermediate	
Geogebra, Geometer's Sketchpad		Advanced	
Maple		Advanced	
<b>Organized Activities</b>			
2013	Math Appreciation Day with Central Texas College	Speaker, Dr. Ed Burger - Nationally awarded mathematics teacher is the presenter.	Mathematical Games Tournament
2012	Workshop at Texas Bio-Science Institute	Workshop on programming in X-code	
2011	Geometric Bubble Day at Texas Bio-Science Institute	Presentation on Geometry and use of zometools as manipulatives in explaining math.	
2010	Mathematical Games Tournament at Texas Bio-Science Institute	Students can win prizes by playing mathematical games	
2010	Finalist judge at Central Texas Science Fair	Judge student science projects.	



2009	Geometric Bubble Day at Texas Bio-Science Institute	Presentation on Geometry and use of zometools as manipulatives in explaining math.
2009	Judge at Central Texas Science Fair	Judge science projects.
2007	Mathematics contents requirements (by Texas College Readiness Standards).	Jarvis Christian College, Hawkins, TX
2006	Organized Informal Analysis Seminar	Kent State University