

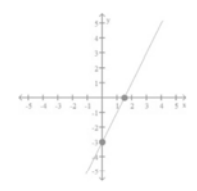



Math: The Bridge to Success

A Quality Enhancement Plan
for

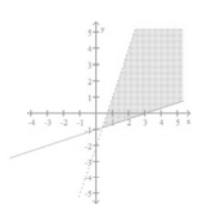
POLK STATE
COLLEGE

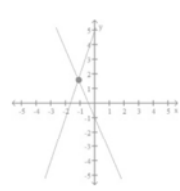
Executive Overview

$(2,7)$ $i^2 = -1$ $5z^2 - 25z = 0$ $x = a$ ∞ $y = b$ $y = \frac{k}{x}$ $Ax + By = C$ 

$a^3 - b^3 = (a-b)(a^2 + ab + b^2)$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ \emptyset $m_1 m_2 = -1$ 

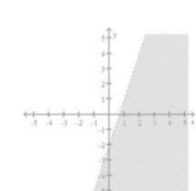
$a^2 - b^2 = (a+b)(a-b)$ $y = mx + b$ $()$ $y \geq mx + b$

$6x - 4 \leq 2x$ OR $-3x \leq -9$ $[]$ $a + bi$ $y < mx + b$  $f(2)$

$y = kx$  $f(x)$ $ax^2 + bx + c = 0$

$\sqrt[m]{a^n} = a^{m/n}$ $Ax + By \leq C$ $ab = 0 \leftrightarrow a = 0$ or $b = 0$

\pm $Ax + By > C$ $m = \frac{y_2 - y_1}{x_2 - x_1}$

$f(x) = 3x + 7$ $(0,0)$ $\sqrt{24} + \sqrt{54}$ $\frac{2 + \frac{4}{y}}{3 - \frac{2}{y}}$ $(2,7) \cup (5, \infty)$ 

$\frac{1}{x-3} + \frac{1}{x+3} = \frac{6}{x^2-9}$

Chapter 1: Executive Summary

Polk State College's Quality Enhancement Plan (QEP), Math: The Bridge to Success, reflects an institution-wide process that aims to improve student learning in Intermediate Algebra (MAT 1033) and the learning environment for MAT 1033 students. In the development, the QEP Committee, consisting of students, faculty, deans, and many other college functions, reviewed input from the college community and key issues that emerged from institutional assessment to determine the area most in need of improvement.

Signifying an area of high impact on how the College accomplishes its mission was a 2008 report from the Florida Department of Education, wherein Polk State College students ranked last (41%) among the 28 community/state colleges in successful completion of Intermediate Algebra (MAT 1033). Because only 15% of the students place above MAT 1033, the statistics were alarming given that the course is a prerequisite to all college-level math courses required for the associate in arts (AA) degree and associate in science (AS) degrees.

Further research and data analysis was supported by the *Community College Survey of Student Engagement*, which stated in 2008: "Student learning and student retention are correlated strongly with student engagement." Therefore, this QEP endorses a college-wide transformation in *how* mathematics is taught rather than *what* is taught while maintaining the focus on four main outcomes: Students will demonstrate competence in MAT 1033 learning outcomes, they will successfully complete MAT 1033 on the first attempt, they will be successful in the subsequent math courses, and they will graduate in their selected degree programs.

Recent research in best practices, such as Blumberg's (2009) rubrics, will be utilized to enable faculty to transition toward the first goal of the plan: more learner-centered teaching. The rubrics, based on Weimer's (2002) five dimensions of learner-centered teaching: *Function of Content*, *Role of the Instructor*, *The Responsibility for Learning*, *The Purposes and Processes of Assessment*, and *The Balance of Power* will be pilot-tested with two MAT 1033 sections during fall 2010. The actual rollout begins in spring 2011 and will increase until at least 75% of MAT 1033 sections are infused with learner-centered practices. Dr. Blumberg will initially train all faculty involved and return each summer to provide training for new faculty and more comprehensive training for current faculty. In addition, faculty will attend various professional conferences.

The second goal of the plan will institute a more supportive learning environment. In addition to changing the environment in the classroom, this goal involves many areas of the College, including tutoring centers, student services, and libraries. Demonstrating the college's capability to initiate, implement, and complete the QEP, its resource requirements are supported with recurring funds for professional development, decreased class sizes, marketing, and other activities outlined in the proposal. These resources will be available for the duration of the QEP and are designed to become part of operational resources for increased student learning.

The assessment design is fully integrated with the college's Educational Program Assessment (EPA) model and the assessment and accountability targets defined by the Key Performance Indicator (KPI) metrics of the college's strategic plan. Evaluation activities include summative assessment of student learning outcomes in MAT 1033, longitudinal comparative student performance measures, student perceptions of instruction and educational support, self-evaluations of faculty across learner-centered dimensions of instruction, and many auxiliary measures. Results will be correlated and reported annually to continuously improve the QEP.

Chapter 2: Process Used to Develop the QEP

QEP Committee - Responsible for QEP Development, Planning, and Implementation		
Committee Member	Title	Role
Kaye Betz	Mathematics Professor, Department Coordinator, Lakeland	Co-chair, QEP Committee
Dr. Kenneth Ross	Vice President for Academic and Student Services	Co-chair, QEP Committee
Peter Usinger	Director of Inst. Research, Effectiveness, and Planning	SACS Liaison / Assessment Team Leader
Hertencia Bowe	Program Director for Health Information Management	Travel Team / Focus Group Team / Implementation Team
Anna Butler	Mathematics Professor	Literature Review Team / Implementation Team
Brittany Dickens	Student, Student Government Association	Implementation Team
Bill Foege	Director of Teaching/Learning Computing Center and Learning Resources, Lakeland	Literature Review Team
Steve Frye	Mathematics Professor	Data Review Team / Implementation Team
Robert Gerber	Student, Phi Theta Kappa	Implementation Team
Maryanne Hyacinthe	Student, Student Government Association	Implementation Team
Wayne Kline	Supply Chain Coordinator	Marketing Team
Debra Laraway	Mathematics Professor	Literature Review Team / Implementation Team
Richard Leedy	Mathematics Professor	Literature Review Team / Implementation Team
Charlie Lyle	Dean of Student Services, Winter Haven	Marketing Team Co-leader / Focus Group Team/Implementation Team
Gregory Marshall	Director of TRiO Student Support Services	Implementation Team
Sandy May	Senior Administrative Assistant	Focus Group Team
Penny Morris	Mathematics Professor	Data Review Team / Implementation Team
Dr. Marvin Pippert	Dean of Academic Affairs, Lakeland	Implementation Team Leader / Travel Team / Focus Group Team
Paul Pletcher	Mathematics Professor, Dept. Coordinator, Winter Haven	Data Review Team / Implementation Team
Saul Reyes	Manager of JD Alexander Center	Literature Review Team / Marketing Team
Sheila Rios	Program Director for Office Administration / Medical Administration / Medical Transcription	Focus Group Team Leader / Implementation Team
Trish Stuart	Dean of Academic Affairs, Winter Haven	Data Review Team Leader / Implementation Team
Sherry Siler	English Professor, Dept. Coordinator, Winter Haven	Literature Review Team Co-leader
Courtlan Thomas	District Director of Academic Support Services	Travel Team Leader / Marketing Team / Implementation Team
George Urbano	District Director of Facilities	Budget Team Leader / Marketing Team
Reggie Webb	Dean of Student Services, Lakeland	Marketing Team Co-leader / Implementation Team
Dr. Lynda Wolverton	Reading Professor, Dept. Coordinator, Lakeland	Literature Review Team Co-leader

Chapter 3: Identification of the Topic

Conclusions

SACS' *Handbook for Institutions Seeking Reaffirmation* states that the QEP should describe "a carefully designed course of action that addresses a well-defined and focused topic or issue related to enhancing student learning" (p. 35) and that it "is an opportunity for the institution to enhance overall institutional quality and effectiveness by focusing on an issue or issues the institution considers important to improving student learning" (p. 35). In addition, the *Spellings Report* says, "While educators and policymakers have commendably focused on getting more students into college, too little attention has been paid to helping them graduate" (U.S. Department of Education, 2006, p. 13).

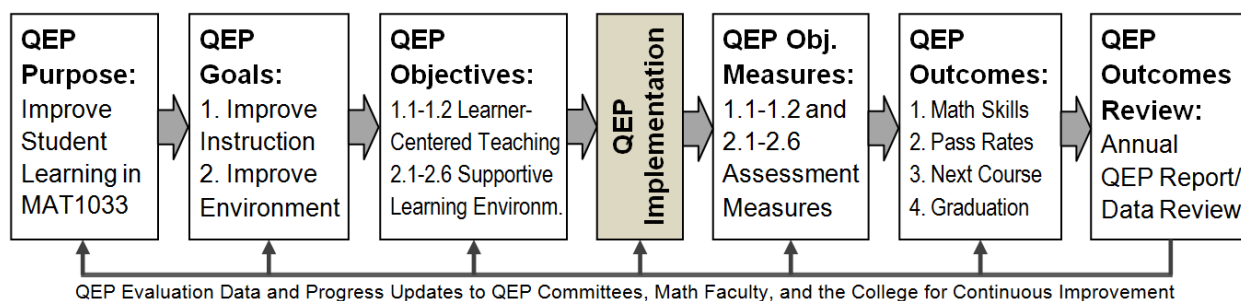
In accord with these premises, the QEP Committee wanted the Quality Enhancement Plan to have a widespread impact; improving the way students learn in Intermediate Algebra is designed to accomplish this goal. At Polk State College, the associate in arts (AA) degree and all associate in science (AS) degrees require students to either pass Intermediate Algebra (MAT 1033) or achieve a college-readiness score that gives them immediate access to higher-level math courses. Because, on average, only about 15% of freshmen achieve such a score, the vast majority of students must pass MAT 1033.

These students will need to take Intermediate Algebra, or perhaps even college preparatory classes (77%) before they can take a college-level mathematics course that will fulfill graduation requirements. Currently, the success rate (5-year average) at Polk State College for students taking MAT 1033 on the first attempt is 56%. Many students end up taking MAT 1033 two or three times. Often they become discouraged because of the time and cost involved, especially if they had to take college preparatory math classes first. Even if students are successfully completing their other college courses, the mathematics requirement becomes an increasingly difficult barrier to overcome.

When students first enroll at Polk State College and discover the mathematics requirement for an AA or AS degree, they may not find excessive the requirement of two math courses for an AA and only one math course for an AS degree. However, when students start facing the realities of the actual course-related demands in combination with their own math-competency issues – most of which pre-date high school – fear and apprehension aggregate in combination with demanding class schedules, and for many this is either the beginning of a long struggle or the end of their attempt to complete a college degree.

Thus, as an institution that deeply cares for the accomplishments of its students, Polk State College has wholeheartedly concluded that the issues surrounding mathematics as a gatekeeper must be addressed, and that student success in college-level mathematics must be improved. Polk State College views this QEP as an opportunity to improve student learning outcomes in Intermediate Algebra beyond the scope of merely diminishing an instructional gap, but also to engage on a journey that is designed to ultimately expand the philosophy and pedagogy of a learner-centered educational environment into the day-to-day classroom experience of all of its students. The evidence has spoken; the College has listened and will act.

Chapter 4: Student Learning Outcomes



Purpose of the QEP

The purpose of the QEP is to improve student learning in Intermediate Algebra (MAT 1033). With improved learning, students will be more successful in Intermediate Algebra so that they may more readily progress toward further academic and/or career goals.

Goals of the QEP

Goal 1: Student learning in Intermediate Algebra (MAT 1033) will improve.

Goal 2: The learning environment for Intermediate Algebra students will be supportive.

Objectives

Objective 1.1: Students will demonstrate mathematical skills and competencies based on an end-of-course assessment in MAT 1033.

Objective 1.2: Full-time and adjunct faculty will demonstrate integration of learner-centered teaching practices in mathematics.

Objective 2.1: Students will experience a supportive learning environment in the classroom.

Objective 2.2: MAT 1033 Students will experience supportive course-related educational services by the TLCC.

Objective 2.3: Students will experience library services as helpful with regard to their MAT 1033 coursework.

Objective 2.4: Students will favorably evaluate support from Student Services in regard to MAT 1033.

Objective 2.5: MAT 1033 students will positively experience the support of the College as a whole.

Objective 2.6: MAT 1033 students will persist in class and achieve their academic goals.

Expected QEP Outcomes

QEP Outcome #1: Students will demonstrate all five student learning outcomes under Goal 1, Objective 1.1.

QEP Outcome #2: Students who take Intermediate Algebra will successfully complete it on the first attempt.

QEP Outcome #3: Students who successfully complete Intermediate Algebra will be successful in the subsequent mathematics course.

QEP Outcome #4: Students completing Intermediate Algebra will graduate in their selected degree programs.

Chapter 5: Literature Review

Selected QEP Implementation Options
Active Learning - is “anything that ‘involves students in doing things and thinking about the things they are doing’” (Bonwell & Eison, 1991, p. 2). See: Blair (2006); Prince (2004); Springer, Stanne, and Donovan (1999); Bonwell and Eison (1991); Chickering and Gamson (1987).
Assessment - can be categorized as either formative (evaluation while learning is in progress), or summative (final evaluation at completion of learning period). See: Suskie (2009); Cizek and Andrade (2009); Martyn (2007); Blair (2006); Angelo and Cross (1993).
Learner-Centered Teaching - can be described as what and how the student is learning, under what circumstances learning takes place, and what the student is retaining and applying to facilitate future learning. Learner-centered teaching also transforms the role of the teacher from a lecturer to a facilitator of knowledge (Weimer, 2002). See: Alsardary and Blumberg (2009); Bosch et al. (2008); Blumberg (2009); Doyle (2008); Thompson, Licklider, and Jungst (2003); Weimer (2002); Barr and Tagg (1995).
Professional Development - enables professors to keep abreast of new research or practices within a professional field while enriching and enhancing their knowledge (Bain 2004). See: Bain (2004); Blanton and Stylianou (2009); Slavitt, Bornemann, and Haury (2009); Harris and Cullen (2008); Davys and Jones (2007); Galbraith and Jones (2006); Van Eekelen, Boshuizen, and Vermunt (2005); Daley (2003); Neptune (2001); Tinto (1998).
Student Engagement - is “participation in educationally effective practices both inside and outside the classroom” (Harper and Quaye, 2009, p. 2). See: Kuh, Kinzie, Schuh, and Whitt (2010); Harper and Quaye (2009); Pascarella and Terenzini (2005); Tinto (1994).
Supportive Learning Environment - created by professors so that affective filters are lowered, and students feel safe to interact and take risks. See: Center for Community College Student Engagement (2009); Willis (2006); Briggs, Sullivan, and Handelsman (2004); Neptune (2001).
Technology-Enhanced Instruction - includes “the use of graphing calculators, student response systems, online laboratories, simulations and visualizations, mathematical software, spreadsheets, multimedia, computers or the Internet, and other innovations yet to be discovered” (Blair, 2006, p. 55). See: Martyn (2007); McCabe (2003); Sutton and Krueger (2002); Roueche and Roueche (1999); Kulik and Kulik (1986).
Rejected QEP Implementation Options*
Learning Communities - seek to encourage student engagement by organizing a curriculum or course around groups of students who progress through a curriculum, group of courses, or stated educational objectives together. See: Freeman, Alston, and Winborne (2008); Scrivener et al. (2008); Fischer and Sugimoto (2006); Tinto (1998); Tinto and Russo (1994).
Learning Styles - the way each individual concentrates on, processes, internalizes, and remembers new and difficult academic information or skills. See: Bonham (2007); McClendon and McArdle (2002); Felder and Brent (2005); Kolb and Kolb (2005); Dunn and Dunn (1993).
Mastery Learning - presents subject content in units with clearly developed learning objectives. Students work with content, individually or collaboratively, until they demonstrate mastery of each unit. See: Gusky (2007); Davis and Sorrell (1995); Bloom (1985); Carroll (1963, 1989).
Problem-Based Learning - “A curriculum development and instructional system that simultaneously develops both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem-solver confronted with an ill-structured problem that mirrors real-world problems” (Finkle and Torp, 1995, p. 1). See: Reynolds and Hancock (2010); Gijbels, Dochy, van den Bossche, and Segers (2005); Shore and Shore (2003).
Study Skills - utilizing skills already used “in other areas of your life that leads to a more successful and relaxed semester” (Cusimano, 1999, para. 35). See: Eades and Moore (2007); Ross, Green, Salisbry-Glennon, and Tollefson (2006); Schwartz (2004); Cusimano (1998).
Supplemental Instruction - “a peer-assisted academic support program that is implemented to reduce high rates of attrition, increase the level of student performance in difficult courses, and increase graduation rates” (Martin & Hurley, 2005, p. 308). See: Fayowski and MacMillan (2008); Wright, Wright, and Lamb (2002); Kenney and Kallison (1994); Treisman (1992).
* Certain aspects of some rejected QEP implementation options, like <i>Learning Styles</i> focus have been integrated with the selected options.

Chapter 6: Implementation

Because one of the primary objectives of the QEP is to improve student learning in MAT 1033, mathematics professors will be transitioning toward more learner-centered teaching methodologies. Weimer (2002) proposed five dimensions of learner-centered teaching:

1. The function of content – "...join content and learning in a dynamic relationship that benefits content acquisition and learner development...stop "covering" content and start "using" it to accomplish learner-centered objectives" (Weimer, 2002, p. 71).
2. The role of the instructor – "Current instructional practice often finds us in the spotlight, at the center of the action, but our persistent position there compromises the learning potential of students. We need to move to a no less important but much more facilitative role" (Weimer, 2002, p. 94).
3. The responsibility for learning – "...the locus of the change shifts to action required of students. They must accept the responsibility for learning. This involves developing the intellectual maturity, learning skills, and awareness necessary to function as independent, autonomous learners. The faculty contribution to this process is creating and maintaining conditions that promote student growth and movement toward autonomy" (Weimer, 2002, p. 95).
4. The processes and purposes of assessment – Assessment activities are "used not just to generate grades, but to promote learning as well" (Weimer, 2002, p. 145).
5. The balance of power – "In most college classrooms, power, authority, and control remain firmly and almost exclusively in the hands of teachers. It is part of what continues to make instruction very teacher centered and what makes many students disinterested in learning" (Weimer, 2002, p. 45).

Implementation Overview					
Term	Estimated Portion of MAT 1033 Sections	Estimated N of Sections	Estimated N of Students	Including Adjuncts	Including Online Classes
Fall 2010	2 sections (see Note 1)	2	44	No	No
Spring 2011	30% of sections	12	264	No	No
Summer 2011	TBD (see Note 2)	5	110	No	No
Fall 2011	45% of sections	22	484	Yes	Yes
Spring 2012	60% of sections	25	550	Yes	Yes
Summer 2012	TBD (see Note 2)	10	220	Yes	Yes
Fall 2012	75% of sections	37	814	Yes	Yes
Spring 2013	At least 75% of sections	31	682	Yes	Yes
Continue with at least 75% each fall and spring term with professors teaching their first redesigned class in the fall or spring only.					
Note 1: Piloting materials					
Note 2: Only professors who taught MAT 1033 in the fall or spring					

Chapter 7: Timeline

Presented below is a summary of the implementation of the main activities described in Chapter 6.

Pilot Implementation 2010-2011

- Fall:
- QEP awareness rollout at Fall Convocation.
 - Initial training of mathematics faculty.
 - Pilot toolbox materials in two classes.
 - Lunch and Learn series begins and continues every fall and spring.
 - Professional development begins: in-house, local and national conferences.
 - Library purchases QEP materials, creates library guides, and designs displays.
 - Joint meetings take place (Student Services and Mathematics Department; TLCC and Mathematics Department). These continue every fall and spring.
 - Early Warning System logistics are reviewed.
 - Various college-wide activities to support QEP begin.
 - Electronic QEP newsletter is issued.
- Spring:
- 30% of classes begin learner-centered teaching.
 - Bridge-Building Sessions begin and continue every fall and spring.
 - Professional development begins: guest speaker, local and national conferences.
 - Early Warning System is implemented.
 - Redesigned tutor training begins.
 - Library maintains displays and updates QEP-related resources.
- Summer:
- Review and evaluation of first year of QEP commences.
 - Learner-centered teaching training continues each summer.

QEP Rollout Phase 2011-2012

The percentage of classes scheduled for learner-centered teaching in the fall increases to 45%, and part-time and online classes are added. In the spring term, 60% of the classes will be scheduled for learner-centered teaching. All other activities continue.

QEP Rollout Phase 2012-2013

The percentage of classes scheduled for learner-centered teaching in the fall increases to 75% and will remain at least 75% for the duration of the implementation. All other activities continue.

QEP Rollout – Remainder of Implementation

Same as the previous years; maintaining an implementation of at least 75%.

The timeline on the following two pages (Table 7-1: Implementation Activities and Timeline) shows the QEP implementation detail associated with six academic years from plan development and pilot implementation (2010-2011) to compilation of the 5-year report for review by SACS-COC (Fall 2016). The legend in the shaded upper-left portion of the table header provides the key to activity codes used to depict the character of the activities scheduled across the term sequence of each academic year (AY).

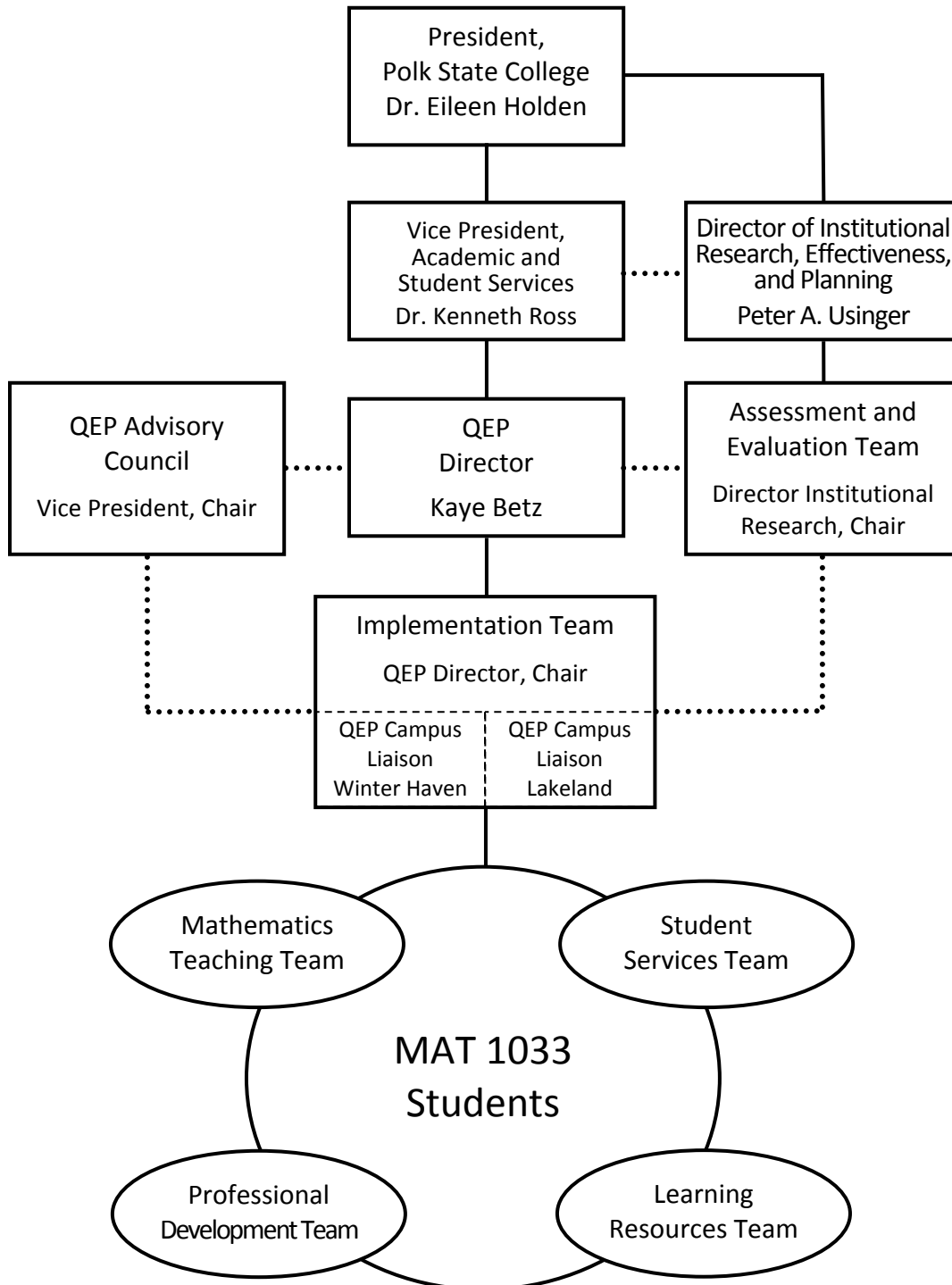
Table 7-1: QEP Implementation Activities and Timeline

Description		Summer 2010	AY 2010/11			AY 2011/12			AY 2012/13			AY 2013/14			AY 2014/15			AY 2015/16			Fall 2016	
			Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer		
Legend: A=As Needed; C=Create; R=Review; U=Update; X=Execute																						
MAT 1033 Instruction	Estimated Number of Sections	0	2	12	5	22	25	10	37	31	12	37	31	12	37	31	12	37	31	12	TBD	
	Estimated Number of Students	0	44	264	110	484	550	220	814	682	264	814	682	264	814	682	264	814	682	264	TBD	
	Full-Time Faculty Involved	0	2	8	TBD	10	10	TBD	12	12	TBD	14	14	TBD	16	16	TBD	18	18	TBD	TBD	
	Part-Time Faculty Involved	0	0	0	TBD	2	2	TBD	4	4	TBD	6	6	TBD	6	6	TBD	6	6	TBD	TBD	
Align Final Exam to Course Objectives		X	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	
Prepare for Fall Convocation on QEP		X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	
Focus Fall Convocation on QEP		-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	
Faculty/Program Director Workshop		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Libraries and TLCC	Acquire QEP-relevant resources	X	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	TBD	
	TLCC Math Tutor Training	-	R	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
	QEP-focused Displays	-	C	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	TBD	
	Library Class Guide for MAT 1033	-	C	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	TBD	
Professional Development	The Teaching Professor Conference	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	
	The Learning College Summit Conf.	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	
	Rubric Discussion Videoconference	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Learner-centered Rubric Workshop	-	X	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	
	AMATYC Conference	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	TBD	
	FTYCMA Conference	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	TBD	
	Learner-centered Syllabi Development	-	X	-	R	-	-	R	-	-	R	-	-	R	-	-	R	-	-	R	-	
	College-wide Lunch and Learn Series	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
	Instructional technology workshops	-	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	TBD
	Bridge-Building Sessions	-	-	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
	Learner-centered Pedagogy Workshop	-	-	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	TBD
	MAA/FTYCMA joint meeting	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	
College-wide QEP Topics Workshop	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-		

Description		Summer 2010	AY 2010/11			AY 2011/12			AY 2012/13			AY 2013/14			AY 2014/15			AY 2015/16			Fall 2016
			Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	
Review and Apply Prior Term's Assessments		-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Toolboxes	First day strategies	C	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	TBD	
	Clicker questions	C	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	TBD
	Learner-centered math activities	C	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	TBD
Math Faculty	Submit <i>Documentation to Support the Selected Status</i> forms to QEP Director	-	X	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-
	Submit Syllabus for MAT 1033 course to QEP Director	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
	Submit <i>Planning for Transformation</i> exercise to QEP Director	-	X	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-
College-wide Activities	QEP Materials Disseminated at New Student Orientation	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TBD
	QEP Materials disseminated at Student Information Tables	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TBD
	QEP Materials Disseminated at Welcome Back Week	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD
	Electronic QEP Newsletter	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TBD
	Poetry Contest	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Performance of the Play <i>Proof</i>	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-1-1 Reading Program (Math Book)	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	TBD
Joint Student Services/math faculty meeting	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
Joint TLCC tutors/math faculty meeting	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
Professional Development Committee	-	C	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
QEP Advisory Committee	-	C	X	-	X	X	-	X	X	-	X	X	-	X	X	-	X	X	-	TBD	
Apply Early Warning System for MAT 1033	-	R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TBD
Publish Annual QEP Summary Report	-	-	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	-	-	X	
Com. Coll. Survey of Student Engagement	-	R	-	-	-	-	-	-	X	-	R	-	-	-	-	-	-	X	-	R	
MAT 1033 Report as part of 5-year Review	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	

Chapter 8: Organizational Structure

As the College moves from planning and development to implementation, the figure below illustrates the proposed relationships among the various organizational components responsible for the implementation of the QEP. In this structural representation, solid lines indicate functional relationships while dashed lines represent collaborative relationships.



Chapter 9: Resources

Activity		Summer 2010	Academic Year (AY) Fall, Spring, Summer						Total
			2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	
1.	Faculty development: In-House workshops	\$0	\$5,300	\$5,300	\$5,300	\$5,300	\$5,300	\$5,300	\$31,800
2.	Faculty development: Local Conferences	\$0	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$14,400
3.	Faculty development: National Conferences	\$6,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$60,000
4.	Faculty/staff: in-district and out-of-district travel	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$10,500
5.	Stipend for mathematics faculty	\$0	\$6,600	\$19,800	\$26,400	\$33,000	\$36,300	\$39,600	\$161,700
6.	Staff supplemental sections	\$0	\$11,550	\$26,400	\$37,950	\$37,950	\$37,950	\$37,950	\$189,750
7.	Student assessments and surveys	\$0	\$1,000	\$1,000	\$7,400	\$1,000	\$1,000	\$7,400	\$18,800
8.	Consultants	\$3,000	\$5,000	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$20,500
9.	Professional organization membership	\$0	\$500	\$500	\$500	\$500	\$500	\$500	\$3,000
10.	Instructional technology	\$0	\$3,200	\$3,200	\$3,200	\$3,200	\$3,200	\$3,200	\$19,200
11.	Workshop materials	\$500	\$2,000	\$4,000	\$3,000	\$2,000	\$1,000	\$1,000	\$13,500
12.	Management and administrative staff	\$24,067	\$96,266	\$96,266	\$96,266	\$96,266	\$96,266	\$96,266	\$601,663
13.	Printing, office supplies, and postage	\$500	\$750	\$750	\$750	\$750	\$750	\$750	\$5,000
14.	College community awareness program	\$67,855	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$79,855
15.	New facilities, remodeling, renovation	Future Capital Improvement Program (CIP) and Public Capital Outlay (PECO) funding requests – See projected implementation cost detail for #15.							
TOTALS		\$103,422	\$147,066	\$174,616	\$198,166	\$197,366	\$199,666	\$209,366	\$1,229,668

Chapter 10: Assessment

The results of all QEP-related measures will be aggregated into an additional QEP-specific IE report module, displaying the following key areas of evaluation:

- Direct outcomes assessment of course-specific student learning outcomes via standard departmental tests, administered to students at the end of each term.
- Assessment support measures that capture student pass rates in MAT 1033 and subsequent student success, specifically across math and science courses annually.
- Comparative assessment data that will track MAT 1033 success rates and goal attainment in ranking and percentage points across the Florida College System.
- Student perceptions of instruction, educational support areas, and the college environment as a whole via combinations of end-of-term and annual student surveys.
- Faculty perceptions of classroom instruction and activities as expressed in the results of instructor self-assessments using learner-centered teaching rubrics.
- Gap analysis between student’s course performance, student perceptions, and instructor self-assessments to inform the continuous development process.
- Auxiliary faculty engagement measures are compiled to track meeting, workshop, and conference participation of instructors across a variety of settings.

The figure below depicts the typical annual assessment timeline for the duration of the QEP. Table 10.1 on the following pages provides an overview of all key QEP assessment measures.

Input	Time	Output
Spring Self-Evaluation by MAT 1033 Faculty	Jul	→ Previous Year QEP Cost Summary
Summer SPI and Student Survey Data		
Summer SLO Measures From Math Department	Aug	→ Summer Data Report to Faculty
Fall Second Day Student Questionnaire Data		
Summer Self-Evaluation by MAT 1033 Faculty	Sep	→ Annual Summary Data to QEP Teams and Committees
Annual Accountability Data from FLDOE		
Annual Tracking Data from Student Database	Oct	→ Annual QEP Report to College
Previous AY Auxiliary Data (Workshops, etc.)		
Feedback to Annual QEP Report	Nov	
Fall SPI and Student Survey Data	Dec	
Fall SLO Measures From Math Department	Jan	→ Fall Data Report to Faculty
Spring Second Day Student Questionnaire Data		
Fall Self-Evaluation by MAT 1033 Faculty	Feb	
Spring SPI and Student Survey Data	May	→ Spring Data Report to Faculty
Spring Second Day Student Questionnaire Data		
Spring SLO Measures From Math Department	Jun	
End-of Fiscal Year QEP Resource/Cost Data		

Summary of Key Assessment Measures

Table 10-1: Polk State College - QEP Assessment Plan

#	Definition of Expected Outcome	Assessment Measure	Measurement Logistics
Goal 1 Student learning in Intermediate Algebra (MAT 1033) will improve.			
1.1	Students will demonstrate mathematical skills and competencies based on an end-of-course assessment in MAT 1033.		
1.1.1	At least 60% of the students will be able to solve and graph systems of equations and inequalities.	The current assessment tools and process used by the Mathematics department will cover all aspects and elements of these objectives and their associated learning outcomes.	Departmental math tests will be administered each term to all MAT 1033 students enrolled and present at the time of test administration.
1.1.2	At least 60% of the students will be able to perform basic operations with functions.		
1.1.3	At least 60% of the students will be able to factor polynomials and solve quadratic equations		
1.1.4	At least 60% of the students will be able to simplify and solve rational expressions and equations.		
1.1.5	At least 75% of the students will be able to simplify expressions involving fractional exponents or radicals.		
1.2	Full-time and adjunct faculty will demonstrate integrated learner-centered teaching practices in mathematics.		
1.2.1	At least 80% of the students will report that the professor uses learner-centered teaching strategies.	Student Perception of Instruction (SPI) survey (extended version for MAT 1033)	Administered at end of each term to MAT 1033 students across all sections
1.2.2	All MAT 1033 faculty will move annually at least three progression steps toward the learner-centered end of the Learner-Centered Teaching Rubric (one progression step for faculty teaching only one semester).	Learner-Centered Teaching Rubric and Transformation Checklist	Self-assessment for each class at the end of the term

Goal 2	The learning environment for Intermediate Algebra (MAT 1033) students will be supportive.
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#	Definition of Expected Outcome	Assessment Measure	Measurement Logistics
2.1	Students will experience a supportive learning environment in the classroom.		
2.1.1	At least 80% of the students will respond favorably to questions about their first-day classroom experience.	Second Day Questionnaire	All MAT 1033 students present at the second day of instruction
2.1.2	At least 80% of the students will respond favorably to questions about student-instructor interaction.	Extended SPI and QEP Survey	Administered at end of each term to all MAT 1033 students
2.2	Students will favorably evaluate the educational support services of the TLCC in regard to MAT 1033.		
2.2.1	At least 80% of students using TLCC tutoring services for MAT 1033 will respond favorably to questions about TLCC tutoring services.	Addressed by items of the college's QEP online survey (self-select format)	Survey link w/ access code via e-mail to all MAT 1033 students at the end of term
2.2.2	At least 80% of students using TLCC computer services for MAT 1033 will respond favorably to questions about TLCC computer services.		
2.2.3	At least 50% of MAT 1033 students will use the TLCC's tutorial services.	Extended SPI and QEP Survey	See 2.1.2
2.3	Students will favorably evaluate the educational support services of the library in regard to MAT 1033.		
2.3.1	At least 80% of students using the library or library services for MAT 1033 will respond favorably to questions about the educational support services of the library in regard to MAT 1033.	see 2.2.1	see 2.2.1
2.4	Students will favorably evaluate support from Student Services in regard to their support of MAT 1033.		
2.4.1	At least 80% of the students will respond favorably to questions about registering for MAT 1033.	see 2.2.1	see 2.2.1
2.4.2	At least 80% of students seeking help with their MAT 1033 class from an advisor or student services personnel, will indicate a positive experience.		

2.5	Students will favorably evaluate the support of the College as a whole.		
2.5.1	At least 80% of the students will report that they discussed their degree or goals with someone who works at Polk State College.	see 2.2.1	see 2.2.1
2.5.2	At least 80% of the students will report that they made a personal connection with someone who works at Polk State College.		
2.5.3	At least 80% of students will respond favorably to questions about the quality of support they received concerning the achievement of their academic goals.		
2.6	Students taking MAT 1033 will persist in the class and achieve their academic goals.		
2.6.1	At least 70% of the students taking MAT 1033 will still be enrolled after the withdrawal date.	Student Database (SDB)	Data extracted from the SDB submission to the FDOE for each term and aggregated for evaluation
2.6.2	At least 90% of the students who are not successful in MAT 1033 will re-enroll in the course in the same or the following academic year.	Student Database (SDB)	
2.6.3	At least 80% of students successfully completing MAT 1033 will be retained at Polk State College during the following academic year.	Student Database (SDB)	
2.6.4	At least 70% of students successfully completing MAT 1033 will be either retained until completing a degree or leave in good standing.	Student Database (SDB)	
QEP Outcomes (not covered by the assessment measures above)			
#2	75% of students who take MAT 1033 will successfully complete it on the first attempt.	Student Database (SDB)	Data extracted from the SDB submission to the FDOE for each term and aggregated for evaluation.
#3	80% of students who successfully complete MAT 1033 will be successful in the subsequent mathematics course.	Student Database (SDB)	
#4	60% of students taking MAT 1033 will graduate in their selected degree program within 150% of time required for the degree completion for full-time students and within 250% of time required for the degree for part-time students. [Note: compared to 2.6.4, this measure will also assess outcomes by degree program and disregard transfer-out student proportions.]	Student Database (SDB)	