Germanna Community College

#iSolveGCC
Gearing up for problem solving!

SACSCOC Onsite Visit
October 16-19, 2017

Quality Enhancement Plan
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I. Executive Summary

The goal of Germanna Community College’s Quality Enhancement Plan, “#Gearing Up for Problem Solving,” is to equip our students with problem-solving skills relevant to their lives as students, employees, and citizens. This goal supports the Vision of the College, which seeks to “enable students to participate effectively in the social, economic, political, intellectual, and cultural life of their communities” (Germanna Community College [GCC], 2017, p. 9).

The focus on problem solving grew out of the Virginia Community College System Strategic Goal, Complete 2021, which identified problem solving as a key skill that all graduates of Virginia’s community colleges should acquire and be given the opportunity to demonstrate. In addition, the results of the Community College Survey of Student Engagement for Germanna Community College suggest that students struggle with the basic components of problem solving within the classroom. A survey of Germanna faculty supports this conclusion, suggesting students require more support in developing basic problem-solving skills, as well as faculty who require professional development in order to teach and assess problem solving effectively.

The focus of the QEP is “Problem Solving Across Contexts.” Students will develop an interdisciplinary problem-solving skill set that promotes reflection, self-regulation, and success across varied curricular, co-curricular, and workplace contexts. The QEP has two main goals:

1. Student Use of Problem Solving:
   Students will demonstrate effective use of problem-solving methods.

2. A Culture of Problem Solving:
   Faculty and staff will create a culture that nurtures students’ development of problem-solving skills in classroom and in co-curricular experiences.

In order for to achieve these goals, Germanna faculty will deliver selected courses in a Problem Based Learning (PBL) format. Faculty will engage in professional development on the use of PBL methods, and courses across the curriculum will be identified to be taught using this format. The College’s Center for Excellence in Teaching and Learning (CTL) will be expanded to support professional development required to develop and deliver instruction using PBL methods.
II. Overview of Germanna Community College

Germanna is one of twenty-three community colleges in Virginia that comprise the Virginia Community College System (VCCS). Germanna serves residents of Caroline, Culpeper, King George, Madison, Orange, Spotsylvania, and Stafford counties, as well as the City of Fredericksburg. Founded in 1970 as part of the VCCS, Germanna’s enrollment currently exceeds 3,500 full-time equivalent students (FTEs) and 6,700 unduplicated annual headcount. Germanna offers transfer and occupational-technical associate degrees, as well as certificate and career studies certificate programs, developmental education, and workforce and continuing education.

Germanna has been among the fastest growing community colleges in Virginia for several years with full-time equivalent enrollment increasing by 51.5 percent from 2006 to 2016. Germanna’s activities are guided by its mission, vision, and values. The Mission of Germanna Community College states that as a “public, comprehensive community college, Germanna provides accessible, high quality educational and training opportunities that address our communities’ diverse and changing learning needs” (GCC, 2017, p. 9). As the learning needs of the community evolve, a focus on problem-solving skills can support students in developing increased awareness of their own needs as learners. This increased awareness will support students in fulfilling not only their own goals but also the Vision of Germanna Community College, which seeks to “enable students to participate effectively in the social, economic, political, intellectual, and cultural life of their communities” (GCC, 2017, p. 9).

Its open-door mission allows the College to serve a student body who enrolls with broad-ranging experiences and goals. Focusing on problem solving allows the College to support students in developing skills that will benefit them in their education and workplace. Most of Germanna’s students balance their coursework with paid jobs; hence, problem-solving skills that translate outside of the classroom will be of particular benefit.

Shared values guide Germanna Community College in fulfilling its Mission and Vision. These values influence ideas, guide decisions, mold policies, and help determine courses of action. Student learning and success are at the heart of all that Germanna does and are demonstrated by:

- Passion for learning and teaching
- Integrity
• Culture of service
• Excellence
• Professionalism
• Stewardship
• Respect

In developing the QEP, Germanna keeps these values at the forefront, in particular, the passion for teaching and learning. Both faculty and students are lifelong learners in and out of the classroom; therefore, focusing on professional development for faculty and on broad-based problem-solving skills for students will support faculty and students in fulfilling Germanna’s Mission and Vision.
III. Process and Identification of Topic

The genesis of QEP topic selection began in Spring of 2015 when the Learning Centered College Committee was identified as the most appropriate entity to begin the task of developing the processes by which a QEP topic could be identified. The Learning Centered College Committee (LCCC) was developed in 2009 and represented a cross-section of faculty and staff dedicated to transforming Germanna’s culture into one focused predominately on student learning. The foundation for this effort was the work of Dr. Terry O’Banion, President Emeritus of the League for Innovation in the Community College.

The mission of the LCCC was to serve as an “Advisory committee to the President and to the Vice President for Academic Affairs & Student Services focused on promoting learning centered concepts and implementing learning centered principles.” The LCCC occupied a prominent place in the shared governance structure of the College and counted among its membership many senior teaching faculty, administrators, and support staff personnel. Over the years, the LCCC reported on best practices within the learning centered college movement, which the College implemented.

Given that the QEP would focus on student learning, the LCCC seemed a natural fit as an organizational entity tasked with the process of identifying an appropriate topic. As a result, the focus of the LCCC shifted and the committee became the Quality Enhancement Plan Topic Selection Committee (QEPTSC).

In Fall 2015, the QEPTSC began increasing institutional awareness to identify a new QEP topic in advance of the College’s 2018 SACSCOC reaffirmation. At the College’s Fall 2015 Learning Day, both the Chair of the QEPTSC and the Executive Director of Organizational Planning & Assessment held an open, information session focusing on the need to identify a new QEP topic as well as to re-familiarize faculty and staff with SACSCOC expectations.

The initial approach to identify a topic including the following steps: 1) identify significant internal and external stakeholder groups associated with the College, 2) familiarize these groups with the concepts and expectations of the QEP, and 3) actively solicit their ideas for a QEP through a focus group, which gathered data. Once a significant number of ideas were identified, the QEPTSC would then engage in the qualitative research exercise of sorting/chunking together topics of similar natures. The result was a more manageable number of potential topics which would then be explored in more detail using subcommittees of the QEPTSC.
Broader Context

The VCCS’ guiding strategic plan entitled Complete 2021 brought an increased focus on developing the skills and competencies most desired by businesses and industry within the Commonwealth. As a result, Germanna’s Strategic Plan and Annual Chancellor's Goals reflected this sharpened focus on career preparation.

During the summer and fall of 2015, a number of well-publicized reports gained significant attention within the VCCS primarily centered on improving students’ soft skills for workforce preparation. This included preliminary recommendations of the VCCS Soft Skills Task Force released at the VCCS Chancellor’s Planning Retreat held in October 2015, followed by the release of VCCS Soft Skills Task Force’s Final Recommendations to the VCCS Advisory Council of Presidents. Given the timeliness of the topic and the sequence in which events played out, much of the stakeholder groups’ thinking centered on the development and improvement of soft skills for students entering the workforce.

During the fall of 2015, the following stakeholder groups were formally engaged in focus group sessions as part of the QEP topic selection process:

- GCC Local College Board—November 19
- President’s Council—November 9
- Faculty Senate—November 6
- College Council –November 20
- GCC Leadership Team—November 18
- Advisory Boards of GCC Academic Programs
- GCC Students
- GCC Employees—November

Raw data from these focus groups was collected and reviewed by the QEPTSC. The first task was to sort varied ideas into groups of similarly themed topics. Emerging from this qualitative process were six distinct topics:

- Start Right: focused on improving student engagement in student’s first year
- Rising Stars: focused on the large group of students who fall in the “middle” with regard to academic preparation
- Soft Skills: focused on problem solving
- Critical Thinking
- Career Readiness: focused on communication skills for those entering the workforce
- Navigating Pathways: focused on implementing Guided Pathways concepts

The QEPTSC assigned its members into small writing teams each tasked with developing a mini-proposal for one of the identified topics. These mini-proposals were then shared with the College prior to College Learning Day held on February 5, 2016. During Learning Day, faculty and staff were given the opportunity to vote on their preferred topic by placing colored dots on the corresponding wall poster. Results of the voting indicated dominant interest in both Rising Stars and Soft Skills:

Rising Stars  57
Soft Skills  51
Critical Thinking  19
Navigating Pathways  10
Career Readiness  7
Start Right  5

These results were discussed at length by the QEPTSC. The proposals for Soft Skills and Critical Thinking were similar in nature, so the QEPTSC merged these topics under the umbrella of soft skills. The Rising Stars proposal, while popular, was beset by measurement challenges and deemed unrealistic to execute. The QEPTSC believed that Problem Solving (as part of the Soft Skills proposal) was timely and would be embraced by teaching faculty and administrators. Thus, Problem Solving was recommended by the QEPTSC on April 5, 2016, and subsequently approved by Germanna’s shared governance bodies.
Table 1. QEP Development Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/17/15</td>
<td>Charge to QEPTSC from President Sam</td>
</tr>
<tr>
<td>4/28/15</td>
<td>Initial meeting of QEPTSC</td>
</tr>
<tr>
<td>5/1/15</td>
<td>Presentation to Faculty Senate and solicitation of topics/ideas</td>
</tr>
<tr>
<td>7/19/15-7/22/15</td>
<td>SACSCOC Institute on Quality Enhancement and Accreditation, Orlando, FL—QEPTSC Chair attended</td>
</tr>
<tr>
<td>9/1/15</td>
<td>QEPTSC Meeting—Review of Faculty Senate Feedback</td>
</tr>
<tr>
<td>9/15</td>
<td>Fall Learning Day Presentation and solicitation of topics/ideas</td>
</tr>
<tr>
<td>10/6/15</td>
<td>QEPTSC Meeting—Review of Learning Day Feedback</td>
</tr>
<tr>
<td>10/14/15</td>
<td>QEPTSC Presentation to Nursing and Allied Health Advisory Board</td>
</tr>
<tr>
<td>11/3/15</td>
<td>QEPTSC Meeting—Brief descriptions of topics/ideas formulated</td>
</tr>
<tr>
<td>11/5/15</td>
<td>QEPTSC Presentation to Professional and Technical Studies Advisory Board</td>
</tr>
<tr>
<td>11/6/15</td>
<td>QEPTSC Presentation to Faculty Senate</td>
</tr>
<tr>
<td>11/9/15</td>
<td>QEPTSC Presentation to President’s Council</td>
</tr>
<tr>
<td>11/18/15</td>
<td>QEPTSC Presentation to Leadership Team—Review of Findings from VCCS Chancellor’s Leadership Retreat</td>
</tr>
<tr>
<td>11/19/15</td>
<td>QEPTSC Presentation to College Board</td>
</tr>
<tr>
<td>11/20/15</td>
<td>QEPTSC Presentation to College Council</td>
</tr>
<tr>
<td>12/1/15</td>
<td>QEPTSC Meeting—Grouping/Chunking Exercise; formulation of 6 mini proposal teams</td>
</tr>
<tr>
<td>12/5/15</td>
<td>SACSCOC Annual Meeting, Houston, TX—Attended by QEPTSC Chair</td>
</tr>
<tr>
<td>12/10/15</td>
<td>Release of VCCS Soft Skills Task Force’s Final Recommendations to the VCCS Advisory Council of Presidents</td>
</tr>
<tr>
<td>2/5/16</td>
<td>College Learning Day—Voting on the six topic proposals</td>
</tr>
<tr>
<td>3/29/16</td>
<td>Problem Solving Skills selected by QEPTSC and recommended to President</td>
</tr>
<tr>
<td>7/17/15-7/20/16</td>
<td>SACSCOC Institute on Quality Enhancement and Accreditation, Dallas, TX—attended by Co-Chair of QEP Development Committee</td>
</tr>
</tbody>
</table>

**Topic Refinement**

Once problem solving was selected as the broad topic, two faculty members were identified to serve as co-chairs of the QEP Development Committee. Beginning in June 2016, the QEP Development Committee Co-Chairs began a broad literature review to determine potential directions for the QEP.
When a review of the most recent CCSSE data suggested that a focus on metacognition and self-regulation would benefit Germanna’s students, the QEP Development Committee Co-Chairs began reviewing metacognition and self-regulation strategies within higher education. An overview of this research was presented at the August 2016 faculty meeting, and a survey based on this research was administered to the faculty in September 2016. The QEP Development Committee Co-Chairs also presented a session on these topics during the College Learning Day in September 2016, including soliciting qualitative feedback from faculty about their experiences teaching problem solving.

In addition, the QEP Development Committee Co-Chairs selected faculty and other members of the campus community to serve on the committee (See Appendix A). The Committee began meeting twice per month in September 2016. Based on additional research and feedback from the campus community, the Committee identified Problem Solving Across Contexts as the organizing principle of the QEP. Further research and discussion of how to operationalize this principle led to a focus on two goals: General Problem Solving Skills, and Information Literacy, with curricular and co-curricular elements. The proposed plans were presented at the December 2016 faculty meeting. After continued discussion and feedback from members of the College, the Committee agreed to narrow the focus to just one goal, General Problem-Solving Skills, to support a more robust implementation.

**Defining Problem Solving**

The Committee began by identifying a set of principles that Germanna’s definition of problem solving must fulfill:

- Emphasize on process over end product
- Interdisciplinary and applicable both in and out of the classroom
- Allow room for inventiveness and experimentation

The Committee was influenced by the definition of problem solving established by the Association of American Colleges and Universities, which states, “Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal” (Association of American Colleges and Universities [AAC&U], 2009). In addition, the Virginia Community College System Soft Skills Task Force defines problem solving as “demonstrate flexibility, desire to meet challenges, and ability to find solutions” (Virginia Community College System [VCCS], 2015, para. 11).
Both the AAC&U and the VCCS definitions of problem solving identify a set of skills that are essential to developing problem-solving competency and emphasize the problem-solving process over product. The AAC&U VALUE Rubric emphasizes the ability to reflect on the end product, establishing the Capstone designation for “Evaluate Outcomes” as “Reviews results relative to the problem defined with thorough, specific considerations of need for further work.” The VCCS definition of problem solving identifies adaptability as key to successful problem solving, defined as “Recognize and embrace new approaches to address challenges” (VCCS, 2015, par. 11).

Ultimately, the Committee chose to adopt AAC&U definition of problem solving: “Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal” (AAC&U, 2009). This definition emphasizes process over end product in a way that allows for effective application in a two-year college environment, allows for implementation at both the curricular and co-curricular level, and leaves room for individual areas of the college to interpret in the way most appropriate to them. While the AAC&U definition of problem solving does not include the specific focus on adaptability that the VCCS definition emphasizes, the ability to evaluate outcomes and to adapt are fundamentally related. If upon evaluation, results indicate the need for further work, individuals must be able to recognize and embrace new approaches. Thus, the AAC&U definition of problem solving effectively captures the essential aspects of problem solving while giving the College flexibility to emphasize those aspects most relevant to its student population.
IV. Desired Student Learning Outcome: Problem Solving Across Contexts

The focus of the QEP, Problem Solving Across Contexts, is to produce students who have the ability to solve problems in a variety of contexts: inside and outside of the classroom, as well as in the workplace and community. To this end, Germanna will develop students’ problem solving skills by integrating problem solving into the curriculum and into co-curricular experiences. Germanna has identified two primary goals of the QEP to support students’ abilities to solve problems across contexts.

Goal One, Student Use of Problem Solving, refers to the problem solving skills that students will develop, which ultimately can be translated to a variety of contexts. Goal Two, A Culture of Problem Solving, refers to the actions the institution will undertake within the curricular and co-curricular contexts to support students in the development of these skills.

Goal One: Student Use of Problem Solving

Students will demonstrate effective use of problem solving methods.

Student Learning Outcomes:

a. Demonstrates the ability to construct a clear and insightful problem statement.

b. Identifies multiple approaches for solving the problem.

c. Propose solutions that indicate a deep comprehension of the problem (may include ethical, logical and cultural dimensions of the problem).

d. Evaluate solutions thoroughly (which can include history of the problem, logic/reasoning, for feasibility and impact)

e. Evaluate the impact of a selected solution.

f. Analyze thinking throughout the problem solving process by reviewing results relative to the problem defined thoroughly with specific considerations of need for further work.

Goal Two: A Culture of Problem Solving

Faculty and staff will create a culture that nurtures students’ development of problem-solving skills in classroom and in co-curricular experiences.

Outcomes:

1. Faculty will infuse classes with Problem Based Learning.

2. Faculty and staff will acquire professional development related to problem-solving methods.
3. Staff members who work directly with students will incorporate problem-solving methods into their programing.

4. Students will report that their coursework at Germanna has emphasized problem-solving methods.
V. Rationale

The rationale for selecting problem solving as the QEP topic was informed by the following factors: recommendations of the Virginia Community College System (VCCS), results of the Community College Survey of Student Engagement, feedback from Germanna Community College program advisory boards, and faculty input. Feedback from all of these areas indicates that students are currently struggling with problem solving both inside and outside of the classroom. In addition, the State Council of Higher Education for Virginia will soon introduce a new core competency area that aligns closely with the problem solving goals of the QEP. The QEP offers an opportunity to develop a strong foundation both among students and within the institution to meet the new core competency area of civic engagement.

Recommendations of the Virginia Community College System

The VCCS has adopted the strategic goal Complete 2021, which, in addition to increased credentialing, focuses on “the skills and competencies most desired by business” (VCCS, 2015, p. 1). In support of the Complete 2021 initiative, the VCCS held town halls with the business community across Virginia and commissioned broad based research of soft skills, with the resulting recommendation:

All students completing degrees, diplomas, and certificates issued by Virginia’s Community Colleges…should have opportunities to build skills and demonstrate competencies in Virginia Community College’s Soft Skills for Workplace Success. Acquisition and demonstration of these skills by our graduates should become part of our culture and brand (VCCS, 2015, p. 2).

Among the skills identified by the Task Force was problem solving, defined as follows:

Problem Solving – Demonstrate flexibility, desire to meet challenges, and ability to find solutions.

- Problem Identification – Recognize and articulate challenges
- Adaptability – Recognize and embrace new approaches to address challenges
- Solution Development – Identify multiple possible responses to identified challenges
- Critical Thinking – Exercise thinking that is clear, rational, open-minded and informed by evidence (VCCS, 2015, pp. 3-4).

The Complete 2021 initiative aligns with Goal One of the QEP in that students will demonstrate effective use of problem-solving methods, and is reinforced by Goal Two, which seeks to create
a culture among faculty and staff that will nurture students’ development of problem-solving skills in the classroom and in co-curricular experiences. Because problem solving has been identified as a key skill that all graduates of Virginia’s Community Colleges should acquire, the QEP serves as an opportunity to support the Complete 2021 initiative.

Community College Survey of Student Engagement Data

An analysis of the 2014 Community College Survey of Student Engagement (CCSSE) results for Germanna Community College indicates that Germanna students are struggling with basic components of problem solving in the classroom. Either these competencies are not being introduced to students, or students are unable to recognize them when introduced. Germanna students scored at or below the national average in the following areas of “Academic Challenge,” all of which encompass problem-solving skills identified by the Committee.

![Diagram](image)

*Figure 1. 5b. Analyzing the basic elements of an idea, experience, or theory.*
Figure 2. 5c. Synthesizing and organizing new ideas, information, or experiences in new ways.

Figure 3. 5d. Making judgments about the soundness of information, arguments, or methods.
The CCSSE results, however, show that Germanna students score above the mean in two key areas of Active and Collaborative Learning that align with elements of Problem Based Learning:
Prince (2004) defines active learning as “any instructional method that engages students in the learning process” (p. 223). Active learning strategies have been implemented on a College-wide basis. The use of these strategies has been integrated into the institutional culture and are part of the faculty evaluation process. The current use of active learning strategies provides a strong foundation for the successful implementation of Problem Based Learning curriculum infusion,
and supports both goals of the QEP. Goal One of the QEP will support students in the effective use of problem solving skills in the classroom, while Goal Two of the QEP will ensure that faculty are effectively introducing and reinforcing these competencies in the classroom.

GCC Program Advisory Boards Input

In August 2016 a survey was administered to 39 Germanna Community College Program Advisory Board members in the following program areas: automotive, business, dental, early childhood education, engineering, fire science, information technology, nursing, paraprofessional counseling, physical therapy, and police science. (See Appendix B). The importance of skills required of our graduates was rated as follows (on a scale of 1 minimally important to 5 very important):

- Problem solving: 100% rated it 4 or 5
- Critical thinking: 100% rated it 4 or 5

The question on the quality of the skills in our graduates was rated as follows (on a scale of 1 minimally skilled to 5 highly skilled).

- Problem solving: 32% rated it 3 or below.
- Critical thinking: 36% rated it 3 or below.

The data gathered from our advisory boards indicates that area employers place a high value on problem-solving skills in prospective employees, and that Germanna students as a group are not currently demonstrating the desired level of skill in this area. Goal One will support students in developing the level of problem-solving skills desired by area employers.

Faculty Input

To gain faculty input regarding the role of problem solving in the current curriculum as well as the needs of students and faculty alike, the faculty were surveyed on their experiences teaching problem-solving skills (See Appendix C). The survey was administered via SurveyMonkey between September 20-28, 2016, to include all full and part-time teaching faculty. The survey was publicized at College Learning Day on September 20 via flyers on tables and via periodic emails sent to faculty during the survey period. Seventy-nine faculty responded, with the number of responses varying for each question.

Survey results indicated that while faculty are introducing problem-solving skills in the classroom, students nonetheless need more support in developing these skills. Furthermore, the results suggest that faculty are not consistently reinforcing problem-solving skills within their
curriculum. Thus, current methods of teaching and assessing problem solving may not fully incorporate the most effective approaches to teaching problem solving. Survey results also indicate that faculty require further professional development in order to teach and assess problem solving effectively. Goal Two will support the faculty in gaining the skills and knowledge needed to nurture students' development of problem solving skills in the classroom.
**VI. Literature Review and Best Practices**

Equipping students with a problem-solving skill set that can be used in a variety of contexts is the focus of the QEP’s goals and outcomes. Selecting a curricular intervention that promotes the transfer of knowledge was, therefore, a major consideration when reviewing the literature of teaching and learning. In the workplace, students frequently struggle to apply the skills they have acquired in formal educational settings (Campana & Peterson, 2013; Candy & Crebert, 1991). However, pedagogical approaches that emphasize the development of metacognition promote the transfer of knowledge (Bransford, Brown, & Cocking, 2000), strengthening the connection between classroom learning and solving “real world” problems. Although various pedagogies support the development of problem-solving skills, the pedagogy most suited to attaining the QEP’s goals and outcomes is Problem-Based Learning (PBL).

In a review of active learning pedagogies, Slavich and Zimbardo (2012) summarize the key components of PBL, noting that it is a pedagogical approach in which “instructors facilitate learning by having students tackle complex, multifaceted problems in small groups while providing scaffolding, modeling experiences, and opportunities for self-directed learning” (p. 573). When comparing and contrasting PBL with similar pedagogies, such as Case-Based Learning (CBL), Davidson and Major (2014) echo Slavich and Zimbardo regarding the following essential characteristics of PBL: learning in groups, finding solutions to complex problems, and self-directed learning. Davidson and Major also consider reflection—which is closely connected to metacognition—to be an essential component of PBL. Major and Eck (2000) highlight the role of metacognitive skill development in PBL, explaining, “problems serve as the context and the stimulus for students to learn course concepts and metacognitive skills” (pp. 1-2). Major (2002a) maintains that metacognitive skills developed by PBL contribute to an increased awareness among students of how skills attained in educational institutions are relevant to the workplace. Similarly, Fournier (2002) argues the use of PBL supports students in developing “transferable skills” that support their success in the workplace (p. 294).

The bulk of scholarly literature supports the effectiveness of PBL. In a 2009 meta-synthesis of meta-analyses examining the efficacy of PBL, Strobel and van Barneveld conclude that PBL is more effective than traditional pedagogies in facilitating the retention of knowledge and skills. More recently, Mandeville and Stoner (2015) found that the use of PBL in an undergraduate science course improved critical thinking and problem-solving outcomes more than traditional instruction.
The scholarship associated with Self-Regulated Learning (SRL) further supports the selection of PBL as the QEP’s curricular intervention. Zimmerman (2002) defines self-regulation as “self-generated thoughts, feelings, and behaviors that are oriented to attaining goals” (p. 65). Drawing on Zimmerman’s model, Bol, Campbell, Perez, and Yen (2016) show that the use of self-regulated learning strategies improved learning outcomes for community college students in developmental math courses. Bol et al. also address directly the relationship between metacognition and self-regulation, pointing out that “metacognition is a foundational construct of SRL” (p. 480).

A final strand of the scholarly literature that informed the QEP’s adoption of the PBL instructional approach is the “threshold concepts” model. Myer and Land (2003) originated the threshold concepts model, positing that each discipline contains key concepts that are particularly challenging, but serve as gateways to significantly improved understanding. Myer and Land (2005) maintain that, upon mastery of a threshold concept, the shift in understanding is so profound that the new understanding is “transformative,” “irreversible,” and “integrative” (p. 373). Wismath, Orr, and MacKay (2015) situate problem solving in the context of the threshold concepts model, establishing threshold concepts that serve as gateways to significantly improved problem-solving skills. The authors’ interdisciplinary interpretation of the threshold concepts model is consistent with the QEP’s interdisciplinary focus. In addition, one of the problem-solving threshold concepts, “Process Over Answer,” is described as “a metacognitive awareness that the process of problem solving is more important than getting an answer” (p. 68). This threshold concept was an impetus behind the QEP’s focus on the steps in the problem-solving process, rather than the end product, which ultimately resulted in the adoption of the AAC&U Problem Solving VALUE Rubric.
VII. Plan Narrative

The QEP seeks to produce students who have the ability to solve problems across contexts. Therefore, students will be given the opportunity to practice problem-solving skills both inside and outside of the classroom, and will be supported in their development of problem-solving skills by an institutional culture of problem solving. Students will meet Goal One of the QEP, demonstrate the effective use of problem solving methods, through Problem Based Learning infused instruction. The institution will meet Goal Two of the QEP, create a culture of problem solving, through professional development for faculty and staff, by establishing a common language of problem solving, and through the expanded Center for Excellence in Teaching and Learning (CTL).

Goal One: Student Use of Problem Solving

_Students will demonstrate effective use of problem solving methods._

Problem Based Learning Infused Courses

The QEP seeks to integrate problem-solving skills into discipline specific courses through a centralized use of Problem Based Learning strategies across the curriculum. The goal of the QEP is to offer PBL infused courses to all students enrolled in a degree program. Over the next five years, the College will implement PBL infused courses across all degree programs. In order to expedite PBL instruction and to meet the needs of our community college population, initial PBL infusion will target high enrollment introductory courses that align with the College’s degree pathways. Students will be introduced to problem-solving skills in Phase One and will have the option to continue developing these skills in a variety of introductory and advanced courses offered in Phase Two. Beyond the specific courses identified for Phases One and Two, the broad diffusion of instruction using PBL and problem solving methods across the curriculum will be supported by PBL or problem solving requirements for all full time faculty. By the end of the five-year period, the College will implement the PBL model in enough core courses so that all students are exposed to the PBL model multiple times as they progress through a degree program.

Phase One: Initial Growth of PBL Infusion (AY 2018-2019)

Phase One PBL courses will be introduced in Fall 2018. The courses included in Phase One are introductory courses in their disciplines and were selected by the department chairs and
program heads as courses that lend themselves well to the PBL format. Many of the courses selected are among the “First Five” courses students will take in their meta-majors, meaning that students will take these courses within their first two semesters of enrollment. All Phase One courses are high enrollment courses and fulfill degree requirements, ensuring that as many students as possible will be impacted as quickly as possible. Based on previous semesters' enrollments, total enrollments for these courses are approximately 5,000 to 6,000 students per semester. Because these courses fulfill degree requirements, many students take more than one of these courses per semester. Thus, students are likely to have multiple experiences with the PBL format. The table below details the full list of selected courses and past enrollments:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Fall 2016</th>
<th>Spring 2017</th>
<th>Fall 2017</th>
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<td>101</td>
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<tr>
<td>ENG</td>
<td>111</td>
<td>1774</td>
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<td>ENG</td>
<td>112</td>
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<td>HCT</td>
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<td>HCT</td>
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<td>HIS</td>
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<td>ITE</td>
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<td>876</td>
<td>549</td>
<td>794</td>
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<tr>
<td>MTH</td>
<td>154</td>
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<td>-----------</td>
<td>350</td>
</tr>
<tr>
<td>NSG</td>
<td>100</td>
<td>----------</td>
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<td>109</td>
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<td>PNE</td>
<td>162</td>
<td>18</td>
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<td>17</td>
</tr>
<tr>
<td>PTH</td>
<td>105</td>
<td>13</td>
<td>----------</td>
<td>12</td>
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<tr>
<td>PTH</td>
<td>110</td>
<td>----------</td>
<td>12</td>
<td>----------</td>
</tr>
<tr>
<td>PTH</td>
<td>115</td>
<td>----------</td>
<td>12</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>5270</strong></td>
<td><strong>4606</strong></td>
<td><strong>5691</strong></td>
</tr>
</tbody>
</table>

**Phase Two: Expansion of PBL Infusion (AY 2019-2020)**

By the fall of 2019, all faculty will have had the opportunity to attend multiple PBL related professional development events. At this point, the College will implement Phase Two of the PBL Infusion. While the focus of Phase One is to impact as many students as possible at the
beginning of their degree programs, the focus of Phase Two is to broaden the scope of PBL instruction available to students. Courses selected for Phase Two are more diverse and include both introductory and advanced courses. The introductory courses offered in Phase Two allow students to take PBL infused courses in disciplines not included in the Phase One implementation of PBL infused courses, while each advanced course included in Phase Two requires a prerequisite course included in the Phase One implementation. While enrollments for these courses are lower and fewer students will be impacted in Phase Two, implementing PBL format in these courses will provide students an opportunity to continue the practice of problem solving either in elective courses of interest to them or in higher level courses within their majors. Phase Two courses and past enrollments are shown below.

### Table 3. Phase Two Courses

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Fall 2016</th>
<th>Spring 2017</th>
<th>Fall 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>211</td>
<td>152</td>
<td>125</td>
<td>185</td>
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<tr>
<td>BIO</td>
<td>150</td>
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<td>BIO</td>
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<td>----------</td>
<td>12</td>
<td>----------</td>
</tr>
<tr>
<td>BIO</td>
<td>256</td>
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<tr>
<td>BIO</td>
<td>299</td>
<td>----------</td>
<td>12</td>
<td>----------</td>
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<tr>
<td>CHM</td>
<td>111</td>
<td>291</td>
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<td>112</td>
<td>50</td>
<td>89</td>
<td>60</td>
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<td>CST</td>
<td>110</td>
<td>279</td>
<td>202</td>
<td>274</td>
</tr>
<tr>
<td>ENG</td>
<td>210</td>
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<tr>
<td>ENG</td>
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<td>21</td>
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<td>ENG</td>
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<td>72</td>
<td>56</td>
<td>75</td>
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<tr>
<td>PLS</td>
<td>135</td>
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<td>94</td>
<td>142</td>
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<td><strong>Total</strong></td>
<td></td>
<td><strong>978</strong></td>
<td><strong>804</strong></td>
<td><strong>1077</strong></td>
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</table>

#### Goal Two: Creating a Culture of Problem Solving

*Faculty and staff will create a culture that nurtures students’ development of problem-solving skills in classroom and co-curricular experiences.*

**Faculty Expectations**

Beginning in Fall 2019, all full-time faculty will be expected to include a PBL or problem solving related objective on their Annual Performance and Professional Development Objectives (APPDOs). APPDOs require faculty to establish a total of five objectives across four separate
performance domains: teaching, service, scholarly and creative engagement, and institutional responsibility. The APPDO form has been revised to specify that one of the objectives must related to either PBL or problem solving. (See Appendix D). The APPDO requires that all objectives specify an outcome rather than describe an activity. For example, rather than “evaluate ways of including PBL methods into my course,” an acceptable objective to include on the APPDO would be “redesign a unit of my course in the PBL format.” The objectives established in the APPDO are approved annually by the respective deans. At the end of an evaluation cycle, all faculty must submit detailed portfolios outlining their achievements of these objectives in support of contract continuance. This evaluation process also includes classroom observations by the respective deans. The classroom observation form has also been revised to include evaluation of the use of PBL methods in faculty teaching. (See Appendix E).

By Fall 2019, all full-time faculty will have had the opportunity to attend multiple professional development events focused on PBL methods, and they will have had the opportunity to brainstorm within their departments about ways in which PBL and problem solving relate to their disciplines. Because PBL as a specific pedagogical approach may not be an appropriate fit for all courses, such as developmental math, broadening the scope of faculty objectives to problem solving includes faculty who teach such courses in supporting the goals of the QEP. This will support the broad diffusion of PBL and problem-solving strategies throughout the curriculum as well as integrate PBL and problem-solving strategies into the faculty culture.

**Professional Development in Co-Curricular Context**

The Student Services division will contribute to a culture of problem solving by reinforcing problem-solving skills gained in the classroom. Student Services staff will receive ongoing professional development to support students’ continued development of problem-solving skills. The initial training of Student Services staff took place in January of 2018, consisting of two separate two-hour training sessions attended by Student Services staff, and organized and facilitated by members of the QEP Development Committee. Thirty-four participants attended the training sessions, which focused on goals of the QEP, supporting research, and examples; in addition, staff brainstormed implementation within their departments.

A follow-up survey was sent to all meeting attendees the first week of February. The survey asked participants to reflect on the goals of the QEP and to determine which components of the problem-solving process their Student Services area helps or requires students to demonstrate. The survey also asked participants about future professional development that would help Student Services staff reinforce the goals of the QEP with students. Twelve participants
responded to the survey. Results indicated that several areas (Counseling, Success Coaching, Library, Career and Transfer) require students to demonstrate all six components of the Problem Solving VALUE Rubric. They may not incorporate all six steps in the process every meeting; however, each unit indicated they cover all components at some point. The activity of problem solving varies by department. Additionally, several respondents indicated that department-specific training in the future would be helpful. Others requested updates on how faculty are implementing PBL in their classes, so support and reinforcement of ideas can be provided.

Shared Language of Problem Solving

Based on recommendations from the SACSCOC on site review team to create common definitions relevant to Problem Solving, the QEP Development Committee developed a glossary of Problem Solving and PBL terms. The QEP Glossary was informed by a literature review related to PBL, as well as a review of assessment literature in higher education. The glossary was further refined through discussions among QEP Development Committee members, as well as discussions with academic and Student Services staff. The QEP Glossary ensures that the campus community has a shared understanding of the major concepts associated with Problem-Solving and PBL, as well as a shared language with which to engage in discussion. The Glossary serves as a complement to the AAC&U Problem Solving VALUE Rubric, and focuses discussions of the QEP’s goals and outcomes. The complete Glossary is attached as Appendix F. In addition to the QEP Glossary, a brochure highlighting the problem-solving process as represented in the Problem Solving VALUE rubric will be produced to clarify and promote the connection between the activities of co-curricular units and problem solving.

An Expanded Center for Excellence in Teaching and Learning (CTL)

The execution of the QEP will take place within the expanded Center for Excellence in Teaching and Learning. The successful use of problem solving by students must be rooted in a thriving culture of problem solving within the College. The expanded CTL is the foundation upon which the College will build a culture of problem solving.

Traditionally, this center has focused on faculty development and is coordinated by a full-time faculty member who is given partial release time from teaching. Events take place in both online and face-to-face formats and consist of various topics driven by faculty interest. An expanded CTL will feature a full-time CTL/QEP Coordinator who will implement the QEP as well as coordinate professional development throughout the College. The expanded CTL will enable
more efficient professional development efforts focusing on PBL. Professional development opportunities will include College-wide faculty workshops, discipline-focused faculty workshops at the division and department levels, and co-curricular professional development for staff working in student services. The CTL will provide the structure and organization for these professional development opportunities, as well as be a resource for individual faculty members.

The full time Coordinator position is currently posted and a search committee has been formed. A review of applications will begin March 13, 2018. The Coordinator will be charged with the following:

- Implement phases of PBL infused courses
- Coordinate ongoing problem-based learning and AAC&U VALUE problem solving rubric professional development for full-time, adjunct, and dual enrollment faculty
  - Work with department chairs to ensure PBL courses are being taught by faculty with necessary professional development
  - Coordinate volunteers after initial workshops to provide multiple options throughout the semester in order to give adjunct and dual enrollment faculty options for attendance
  - Develop surveys for use after professional development events for future planning (in association with direction from administration)
- Coordinate ongoing problem solving professional development for staff
  - Collect participation counts and feedback from student services staff
  - Use input from supervisors and administration when planning staff professional development.
- Ensure implementation and analysis of direct and indirect QEP assessment methods
  - CCTST-N - review and disseminate scores and coordinate analysis
  - CCSSEE - review and analyze data
  - Coordinate with Deans to measure full-time faculty participation in PBL by review of faculty evaluations
  - Review a sample of PBL courses embedded assessments to ensure PBL model is used
  - Coordinate analysis of data related to course embedded assessments
- Share information related to the progress of the QEP yearly with the College
- Complete necessary reports and information required by SACS for the QEP
VIII. Implementation

The College has developed a detailed timeline for implementation, undertaken a marketing campaign to raise awareness of the QEP among various stakeholders, and created a professional development plan.

Detailed Implementation Timeline

The following timeline accounts for all major actions necessary to implement the QEP.
## Figure 8: Timeline, in three images

<table>
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<th>2017 Fall</th>
<th>2017 Oct</th>
<th>2017 Nov</th>
<th>2017 Dec</th>
<th>2018 Spring</th>
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</thead>
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<tr>
<td>Student Success Day - QEP Marketing</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Final QEP for President's signature</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit QEP to SACCDOC President</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Convocation – QEP Update/Marketing</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QEP Marketing with faculty/staff</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QEP session on PBL specifics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Meeting – QEP faculty development</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Host SACCDOC On-site Visit</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify courses for PBL implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Course Implementation

**Phase One:**
- Bio 101, Bio 102, Bus 100, CST 126, Eng 11, Eng 117, HCT 101, HCT 102, Hist 121, Hist 122, ITE 115, Math 154, NSG 100, PHE 162, Phs 101, Phe 110, Phs 115

**Sections:**

**Phase Two:**
- ENG 210, ENG 211, ENG 241, BIO 205, BIO 205, BIO 256, BIO 299 (Capstone Course), ACC 211, PL 135, CHM 111, CHM 112, BIO 150, CST 110

**Sections:**

### Year 5:
- All faculty to have been trained and have at least 1 APTO goal devoted to PBL
- Online faculty training module in place

### Evaluation/Assessment

- CCBE administered:
- OCTSST-N administered (example w/ AACCC)

### Tools

- IAC Platforms:
  - faculty training evaluated
  - Improvements recommended
- AACAU Value Rubric
  - Rubric finalized
  - Brochure finalized
  - Faculty training evaluated
  - Improvements recommended

### Training

- Department Chairs - "Train the trainers"

### Faculty - Full-time

- PBL, Professional Development workshop assessed & Analyze events
- PBL Assignment Collaboration sessions
- Criteria - % trained
- Criteria - used in Evaluations

### Faculty - Adjunct

- Adjunct Faculty training: Adjunct Convocation
- Criteria - % trained
- Criteria - used in Evaluations

### Co-Curricular/Staff professional development event

- Criteria - % trained

### CETL Director

- Hired
- Trained
- Random sample analysis

### Reviews/Milestones

- QEP review
- President
- VCCS
### Course Implementation

**Phase One:**
- Bio 101, Bio 102, Bus 100, CFT 126, Eng 11, Eng 112, HCT 101, HCT 102, His 121, His 122, ITE 115, Mth 134, NSG 100, PME 167, PTH 109, PTH 110, PTH 115

**Phase Two:**
- EN 211, EN 213, ENG 241, BIO 242, BIO 225, BIO 250, BIO 513, CAPSTONE Courses, ACC 211, PLS 135, CHM 111, CHM 112, BIO 150, CFT 110

**Year 2:**
- All faculty to have been trained and have at least 1 AP/PTO goal devoted to PBL. Online faculty training module in place

### Evaluation/Assessment

- CC/SE: administered
- CCTST-N administered (sample w/Asco)

### Tools

- EAC Platforms: faculty training evaluated
- Improvements recommended
- AAC&U Value Rubric
- Rubric finalized
- Glossary finalized
- Brochure finalized
- Faculty training evaluated
- Improvements recommended

### Training

- Department chairs - "train the trainer"

- Faculty - full time
  - PBL professional development workshop
    - assess & analyze events
  - PBL assignment collaboration session
  - Criteria - % trained
  - Criteria - used in evaluations

- Faculty - adjunct
  - Adjunct Faculty training - Adjunct convolution
  - Criteria - % trained
  - Criteria - used in evaluations

- Co-Curricular/Staff
  - Professional development event
    - Criteria - % trained
      - 50%

- CELT Director
  - hired
  - Trained
  - Random sample analysis

- References/Visit/Review
  - QEP review
  - President
  - VCCS
Germanna Community College

Student Success Day - QEP Marketing
Submit Final QEP for President's signature
Submit QEP to SACS/COC President
Faculty Convocation - QEP Update/Marketing
QEP Marketing with faculty/staff
QEP session on PBL specifics
Faculty Meeting - QEP faculty development
Host SACS/COC On-site Visit
Identify courses for PBL implementation
Faculty development

Course Implementation
Phase One:
Bio 101, Bio 102 Bus 150, CST 126, Eng 111, Eng 112,
HCT 101, HCT 102, His 121, His 122, ITE 115, Math 154,
NSB 100, PBL 182, Pth 105, Pth 110, Pth 115
sections: all
Phase Two:
ENG 210, ENG 211, ENG 241, BIO 242, BIO 265, BIO 256,
BIO 299 (Capstone Course), ACC 211, PSE 135, OCM
111, CHM 132, BIO 150, CST 110
sections: all
Year 5:
all faculty to have been trained and have at least 1
APIE goal devoted to PBL
online faculty training module in place

Evaluation/Assessment
CCSSIE administered.
CCTST-H administered - (table with x's)

Tools
EAC Platform:
faculty training
evaluated
Improvements recommended
AACU Value Rubric
Rubric utilized
Glossary finalized
Brochure finalized
faculty training
evaluated
Improvements recommended

Trainee
Department chairs - "trains the trainer"

Faculty - full time
PBL professional development workshop
assess & analyze events
PBL assignment collaboration session
Criteria - % trained
Criteria - used in evaluations

Faculty - adjunct
Adjunct Faculty training - Adjunct convocation
Criteria - % trained
Criteria - used in evaluations

Co-Curricular/Staff
Professional development event
Criteria - % trained

CEETL Director
Hired
Trained
Random sample analysis

Reviews/Milestones
QEP review
President
VCCS
Marketing

In order to raise awareness of the QEP throughout the campus community, a marketing campaign began in September 2017. This campaign targeted students, faculty, and staff. The QEP was publicized to students at campus events such as Student Success Day in September 2017, an event held each semester. To further raise awareness of the QEP among students, a contest was held to name the school mascot, a grizzly bear. The premise of the contest was solving the problem of naming the mascot. A social media campaign using the hashtag #ISolveGCC was attached to the contest and helped publicize the QEP to stakeholders who follow the College on social media. The QEP was further publicized to students, faculty, and staff through giveaways such as lanyards and USB drives bearing the QEP logo. In addition, the screens of campus computers and electronic bulletin boards displayed the QEP logo, all computer labs were equipped with mouse pads displaying the QEP logo, and pop up signs publicizing the QEP were placed in various campus locations. A detailed timeline of marketing efforts is attached as Appendix G.

Professional Development

The primary vehicle for professional development will be the expanded Center for Excellence in Teaching and Learning (CTL). Professional development opportunities will include College-wide faculty workshops, discipline-focused faculty workshops at the division and department levels, and co-curricular professional development for staff working in student services. The CTL/QEP Coordinator will provide the structure and organization for these professional development opportunities, as well as be a resource for individual faculty members.

Initial Faculty Professional Development

The initial training for full-time faculty began in February 2018 with a workshop on Problem Based Learning. The workshop was organized by the current part-time CTL Coordinator, and were facilitated by Dr. Elizabeth Edmondson (Virginia Commonwealth University) and Dr. Anne Mannarino (Regent University). Three workshop times were available for faculty to choose from in order to best fit their schedule and encourage all to attend.

The workshop offered a general introduction to the history and research surrounding PBL. The facilitators also conducted several activities designed to help faculty develop a deeper understanding of PBL and brainstorm ideas for implementing PBL in their courses. Faculty will collaborate with their respective departments to develop potential common course specific
Problem Based Learning assignments. These assignments will be presented for feedback at the April 2018 full-time faculty meeting.

In January of 2018, a team of the following QEP Development Committee members attended the AAC&U Annual Meeting (held on January 24 – 27, 2018, in Washington, DC) in order to learn more about best practices for adapting the AAC&U Problem Solving VALUE Rubric for use in the assessment of student learning.

- Dr. Patti Lisk, Dean of Nursing and Health Technologies
- Dr. Nicole Munday, Associate Director of Assessment
- Dr. YanYan Yong, Dean of Academic Technology and Learning Support,
- Ms. Denise Talley, Dean of Professional and Technical Studies
- Mr. Matthew Pierce, Instruction and Web Librarian
- Ms. Cheri Maea, Registrar

The initial faculty training on the use of the AAC&U Problem Solving VALUE Rubric will occur in August 2018 at the Department Chair Retreat and at Adjunct Convocation. Kate McConnell from the AAC&U will facilitate a training session for department chairs and full time faculty teaching Phase One courses at the Department Chair Retreat. Ms. McConnell will also present an interactive rubric training session at the Adjunct Convocation, which is attended by adjunct and dual enrollment faculty.

Following these initial training sessions, the College will employ a “Train the Trainer” model. Department chairs will receive “Train the Trainer” training at the Department Chair Retreat in order to allow them to train both full time and part time faculty within their departments on PBL methods and the AAC&U Problem Solving Value Rubric. In addition, beginning in Fall 2018, the full time CTL Coordinator will solicit volunteers to hold monthly rubric training sessions. These sessions will be targeted at the remainder of full time faculty, part time faculty, and dual enrollment faculty who have not yet received training. They will also be open to interested staff.

Continued Faculty Professional Development

The full-time CTL Coordinator will be responsible for the planning and implementation of continued professional development events on PBL methods and the use of the AAC&U Problem Solving VALUE Rubric. The CTL Coordinator will solicit input from faculty and administration in order to determine the professional development needs of faculty. The events will occur at least once per year in formats available to full-time, adjunct, and dual enrollment faculty.
Adjunct Convocation, which takes place annually, will be used as an opportunity to reach adjunct and dual enrollment faculty. In addition, the annual College Learning Day, which is required for full time faculty and open to adjunct and dual enrollment faculty, provides an opportunity to reach both full time and part time faculty.

It is intended that after initial training on Problem Based Learning and the VALUE rubric, training will occur primarily within individual departments and only refresher training and training of new faculty will be necessary. Full time faculty meetings provide an opportunity for refresher training based on faculty feedback, as well as an opportunity for faculty to share best practices and experiences with PBL. Similar refresher training and sharing of best practices will occur within individual departments, providing an opportunity to reach part-time faculty as well as full-time faculty.

**Online Training**

Online training in Problem Based Learning and the VALUE rubric will be necessary in order to ensure that all full-time, adjunct, and dual enrollment faculty have access to this information in a manner that fits their schedules. Germanna has successfully developed and implemented several online training courses for teaching online courses and offer those multiple times per year. The CTL/QEP Coordinator will encourage faculty who have the necessary training in Problem Based Learning and the VALUE rubric to apply for the Germanna Innovations in Teaching and Learning Award to develop this online training. This is a $5,000 award available to full-time teaching faculty to develop a project that supports the strategic goals and mission of Germanna Community College. The award involves demonstrating the appropriate background knowledge and proposing a research-type question; developing a timeline, budget, and assessment plan; and disseminating the findings of the project internally and externally. This online training will begin development in Fall 2020.

**Staff Professional Development**

The Initial training of Student Services staff occurred in January of 2018. Two separate two-hour training sessions were offered in order to limit the interruption to Student Services departments. The sessions were organized and facilitated by members of the QEP Development Committee, and addressed the goals of the QEP, with a focus on the distinction between Problem Solving, Problem Based Learning, and the AAC&U Problem Solving VALUE Rubric. The facilitators led several activities designed to give staff the opportunity to consider how the work of individual
student services departments supports the development of students' problem solving skills, and how an increased focus on problem solving might be implemented within their departments.

The full-time CTL Coordinator will be responsible for the planning and implementation of continued Student Services professional development events. The CTL Coordinator will solicit input from staff and administration in order to determine the professional development needs of staff. The events will occur at least once per year in formats that will allow for training of staff with limited interruption to Student Services.
**IX. Organizational Structure and Resources**

**Organizational Structure**

The following shows the organizational structure for implementing Germanna’s QEP. The CTL/QEP Coordinator will report to the VP for Academic affairs and chair the QEP Committee made up of faculty and staff.

![Organizational Structure Diagram]

*Figure 9. Organizational structure for implementing the QEP.*

**Resources**

**Comprehensive Budget**

A subcommittee of the QEP Development Committee developed the budget; members include the Vice President of Academic Affairs and Workforce, the Dean of Professional and Technical Studies, also an adjunct accounting professor, and the Assistant Registrar. Each subcommittee provided information to the budget team regarding anticipated expenditures, and these expenditures were researched to ensure projections were correct. Table 4 details the comprehensive budget for the QEP over the five year period.
Table 4. Comprehensive Five Year Budget

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<tr>
<th>Item</th>
<th>Pre-QEP prep 17-18</th>
<th>Year 1 18-19</th>
<th>Year 2 19-20</th>
<th>Year 3 20-21</th>
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<td>7,440</td>
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<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
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<td><strong>Total</strong></td>
<td><strong>$ 17,980</strong></td>
<td><strong>$ 156,532</strong></td>
<td><strong>$ 148,806</strong></td>
<td><strong>$ 149,436</strong></td>
<td><strong>$ 150,096</strong></td>
<td><strong>$ 150,846</strong></td>
<td><strong>$ 773,697</strong></td>
</tr>
</tbody>
</table>

Personnel
The College is currently advertising for the CTL/QEP Coordinator. The College has budgeted $65,500 for the position and included the standard 40% for benefits. The position will be a nine-month faculty position. The budget for this position also reflects an annual summer stipend of three credit hours at $950 per hour in order to allow work to continue over the summer.

Additional personnel costs include a part-time administrative assistant budgeted at $15 per hour and release time for the faculty member currently serving as the Center for Teaching and Excellence during the transition period. Monies were also included for office equipment. The CTL/QEP Coordinator position advertisement is attached as Appendix H.

Professional Development
Pre-QEP preparation: Six deans and administrative faculty attended the annual AAC&U conference in January to research the use of the VALUE rubric and portfolios. The group determined the use of the VALUE rubric was the best way to assess learning. They also decided using portfolios to gather the data would not be the best alternative. Additionally, during the pre-prep timeframe, the Center for Teaching and Learning provided three workshops on Problem Based Learning to all full-time faculty.

The College has estimated $12,000 per year to for continued professional development and training in PBL methods, the AAC&U Problem Solving VALUE Rubric, and the use of the EAC
Visual Data. Monies were also budgeted to send the CTL/QEP Coordinator to the SACS Summer Institute and to send two faculty members each year to a problem based learning conference. Lastly, $500 per year was set aside to invite speakers to College Convocation to discuss problem based learning and rubrics.

Assessment Materials
The College will be administering the California Critical Thinking Skill Test – Numeracy to all graduating seniors. The College estimates 20% of graduates will take the test. Students will receive a $30 gift card to the College Bookstore as an incentive to take the test. Additional budget monies have been added to pay for the EAC Visual Data software to be used to accumulate data results. While the College already owns the EAC Visual Data software, there is an additional cost to enable the software’s rubric device.
X. QEP Comprehensive Assessment Plan

The College’s QEP Comprehensive Assessment Plan tracks institutional progress for the transformation of student learning related to problem solving over a period of five years and provides accountability for the achievement of the College’s two QEP program goals. Program Goal 1 refers to students’ use of problem solving methods, and Program Goal 2 refers to building a campus culture that nurtures students’ development of problem-solving skills in classroom and co-curricular experiences. As the QEP Development Committee designed the QEP Comprehensive Assessment Plan, it employed multiple measures at both the student level and the institutional level; Program Goal 1 incorporates direct assessments and Program Goal 2 incorporates indirect assessments.

Goals and Outcomes

Figure 10. Student Learning Outcomes for Goal One

Program Goal 1 is aligned with six Student-Learning Outcomes (a through f) that relate to different aspects of the problem-solving and are measured through direct assessment methods. The College’s primary tool for the direct assessment of student learning emerges from its institutional adoption of Problem-Based Learning (PBL) as a shared pedagogical approach. Academic deans, department chairs, and members of the QEP Development Committee collaborated to identify core courses where PBL would be taught and where assignments would
be collected and analyzed. The College will use Educational Assessments Corporation’s (EAC) Visual Data system, an online platform, to facilitate the collection of course-embedded assignments that faculty members will evaluate using a common rubric—the AAC&U VALUE Rubric on problem solving. In addition to aggregated data on all six dimensions of the VALUE Rubric, the College will triangulate its course-embedded assessment data and track the success of its QEP through the use of standardized testing. The College will administer the California Critical Thinking Skills Test-Numeracy (CCTST-N) to graduating students, allowing a comparison of local students’ problem-solving abilities to the abilities of their national peers.

**Figure 11. Institutional Outcomes for Goal Two**

Program Goal 2 measures how well the College creates a culture that nurtures students’ development problem-solving skills in classroom experiences and co-curricular activities. Indirect assessments look into students’ self-reports on whether they have encountered problem solving within the College’s curricula; activity counts among full-time faculty tracks whether they have infused PBL or problem solving in their respective courses; activity counts among full-time staff on whether they have developed students’ problem-solving skills through ongoing, co-curricular work; and activity counts and satisfaction surveys measure whether the College has offered effective, annual, problem-solving and PBL professional-development events.
Description of Assessment Methodologies

PBL Course-Embedded Assessments

PBL will be infused throughout the curriculum so that students have multiple chances to learn problem-solving methods through a PBL approach. Ultimately, the PBL model will be implemented in enough core courses that each student is exposed to the PBL model at least twice as they progress through a degree program. In addition, many of the courses selected are high-enrollment courses, among the “First Five” courses students will take in their meta-majors. The academic deans and department chairs selected courses that lend themselves well to the PBL format.

Faculty will design course-embedded PBL assessments and then rate these student work products using the AAC&U VALUE Rubric on problem solving. The selected courses span a range of disciplines, allowing students the opportunity to learn problem solving skills and complete PBL assignments in varying contexts. Examples of the types of direct, course-embedded assessment that will be evaluated with the VALUE rubric include instruments such as case-study analysis, reflective writing, and artifacts that capture the processes of collaborative projects. Assessment may also be conducted via assignments such as research papers, formal classroom debates, and peer revision activities. At a recent department chairs’ meeting, the College’s chairs generated a list of discipline-based assignments, illustrating the types of PBL course-embedded assessments that could be collected and assessed for the QEP:

- MTH 154 - Students would perform a cost-benefit analysis in order to decide which new car to buy.
- ITE 115 - Students would analyze an existing security system, identify weaknesses, and create a plan to implement cyber defense strategies.
- BIO 101 - Students would be presented with a simulated complex crime scene with an unknown perpetrator in which students collect and analyze evidence in order to solve the crime using gel electrophoresis.
- CST 126 - Student would have a final project where they identify and summarize an interpersonal relationship conflict in a television show, film, or current event and work to state better solutions using principles used in class.

Faculty teaching the same course will be encouraged to work within their departments to design common, course-embedded assignments whenever possible because common assignments
would allow for periodic norming sessions on the VALUE rubric, informal peer-to-peer mentoring, as well as greater opportunities for faculty to analyze and brainstorm ways to use assessment results for continuous curricular improvement. All full-time, part-time, and Dual Enrollment instructors in PBL-designated courses will need to submit a PBL assignment that they then rate using the VALUE rubric. However, the particular PBL assignment will be selected at the discretion of the department chair and respective division dean. The work products to be evaluated should be authentic assignments from the PBL courses.

The College will use the EAC Visual Data system to facilitate the collection, evaluation, and aggregation of student-performance data on its six Student-Learning-Outcomes. Students will upload their PBL assignments, their teachers will evaluate these student work products using the VALUE rubric, and EAC Visual Data will aggregate data on all six dimensions of the rubric and provide a report of the results by course, by academic division, and for the institution as a whole.

California Critical Thinking Skills Test—Numeracy (CCTST-N)
The California Critical Thinking Skills Test—Numeracy (CCTST-N) will be used as a direct assessment to supplement direct, course-embedded assessments and enable comparisons against a peer benchmark. The components tested by the basic CCTST fall into five major categories: analysis, inference, evaluation, deduction, and induction. Two additional categories, interpretation and explanation, are included in an expanded version of the test, which the College will use; we will also use the “Numeracy” version of the test that incorporates quantitative reasoning in the analysis of graphs and charts: the CCTST-N. The CCTST-N aligns closely with the theoretical underpinnings of the QEP, which focuses on the process of problem-solving, rather than specific components of reasoning.

Students will be tested with the CCTST-N the semester they file to graduate from the College with their Associate’s degree. The College will offer a bookstore voucher as an incentive for graduating students to take the test, which takes approximately 60 minutes to complete in the Testing Center; students may use their voucher to purchase their cap and gown or other items of their choice. Through early and frequent communication with graduating students and through the incentive program, the College expects a response rate of approximately 10-20 % of its graduating students each semester. At Student Success Day on April 17, 2018, the College will collect baseline data for the CCTST-N, enabling the institution to study its student
performance rates prior to the launch of the QEP in the fall. It is important to note that the CCTST-N results should be used to triangulate and contextualize the course-embedded assessment data. The value of the CCTST-N for the College’s QEP lies in the instrument’s careful validity and reliability testing, allowing us to track graduates perform on the test through several years of our QEP implementation. Due to the small number of testers and the varying levels of student motivations for taking the test, the scores will be used for continuous improvement efforts and not to draw conclusions about achievement levels for the general student population. Subcommittees tasked with analyzing graduates’ CCTST performance through each year of the QEP implementation will study whether the College’s average overall scores have increased by a statistically significant difference; subcommittee members will also gauge how well graduates compare to their national, community-college peers.

The Community College Survey of Student Engagement (CCSSE)
The Community College Survey of Student Engagement (CCSSE) is an extensively researched, national survey that provides benchmarks for peer comparison; it is also an instrument that the College has administered for many years. Therefore, CCSSE questions for Item 5—categorized under “Academic Challenge”—that the QEP Development Committee aligned to problem-solving (5b, 5c, 5d, and 5e) provide a rich data source for tracking the levels at which students believe they have been given the opportunity to learn problem-solving skills while enrolled at the College. Results from the College’s 2014 CCSSE administration appear below. The QEP Development Committee’s Goals, Outcomes, and Assessment Subcommittee used these CCSSE results to set a benchmark for student responses once the QEP launches in Fall 2018. By 2023, the fifth year of the College’s QEP implementation, the target benchmark is that at least 70% of students will respond affirmatively with “quite a bit” or “very much” on questions 5b, 5c, 5d, and 5e. Prior to the QEP’s launch this Fall, the College will collect additional baseline data when it administers the 2018 CCSSE in April, and the College will repeat the CCSSE in 2020 and 2022.

Annual Performance and Professional Development Objectives (APPDOs)
Beginning in the 2019-2020 academic year full time faculty will be expected to include a PBL or problem solving related objective on their Annual Performance and Professional Development Objectives (APPDOs). Deans and their support staff will review APPDOs to evaluate the percentage of full-time faculty that have included a PBL-related objective. By the fifth year of
the QEP’s implementation, the College expects that 90% of full-time faculty will have a PBL or problem-solving related APPDO objective.

Co-Curricular Problem Solving Activities and Professional Development

The CTL/QEP Coordinator will track the number of Problem solving activities that take place within the Student Services division in order to determine the extent to which the departments within Student Services are supporting Program Goal Two. While the activity of problem solving will vary by department, examples of activities that require students to demonstrate the steps of problem solving can include student success coaching, experiential learning, career and transfer counseling, library instruction, and thematic events.

Professional development events will be offered to Student Services staff on an annual basis. The CTL/QEP Coordinator will track attendance at these events and administer follow-up surveys to determine the extent to which these events meet the needs of the Student Services departments.

Analysis of Data

Assessment data for Program Goal 1 and Program Goal 2 and the outcomes attached to each will be collected and analyzed on at least an annual basis—and, in many cases, a semester-by-semester basis—to track progress of the QEP and make adjustments to the PBL curriculum, QEP procedures, assessment tools, or the allocation of resources. Each semester, the CTL/QEP Coordinator will review and disseminate raw CCTST-N scores, working closely with the Chair of the General Education Assessment Committee and convening subcommittee(s) at the CTL/QEP Coordinator’s discretion. The CTL/QEP Coordinator will organize an institutional, faculty-led analysis of the CCTST-N overall score and scale scores to analyze patterns of student performance on six student-learning outcomes and make formal recommendations improvements based on the use of results. Annually, the CTL/QEP Coordinator will organize the collection and analysis of a random sample of course-embedded assessments to ensure the PBL model is being followed and to test the validity of the direct assessment processes aligned with QEP Program Goal 1 on student use of problem-solving. Each fall at Convocation, the CTL/QEP Coordinator will report on the QEP’s progress, providing a brief synthesis of the analysis of the assessment data and describing the College’s action steps to maintain momentum on achieving the benchmarks to achieve the stated QEP Goals.
## Table 5. Assessment Plan for Goal One

**Goal One - Student Use of Problem Solving**  
Students will demonstrate effective use of problem-solving methods.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Assessment Methodologies</th>
<th>Frequency of Assessment</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student Learning Outcomes</td>
<td>• Evaluate student artifacts with VALUE Rubric</td>
<td>Annual</td>
<td>1.1. At least 70% of students will score at or above a milestone score of 2 as measured on the “Define Problem” dimension on the Problem Solving VALUE rubric</td>
</tr>
<tr>
<td>1.1. Demonstrates the ability to construct a clear and insightful problem statement.</td>
<td></td>
<td></td>
<td>1.2. At least 70% of students will score at or above a milestone score of 2 as measured on the “Identify Strategies” dimension on the Problem Solving VALUE rubric</td>
</tr>
<tr>
<td>1.2. Identifies multiple approaches for solving the problem.</td>
<td></td>
<td></td>
<td>1.3. At least 70% of students will score at or above a milestone score of 2 as measured on the “Propose Solutions/Hypotheses” dimension on the Problem Solving VALUE rubric</td>
</tr>
<tr>
<td>1.3. Propose solutions that indicate a deep comprehension of the problem (may include ethical, logical and cultural dimensions of the problem).</td>
<td></td>
<td></td>
<td>1.4. At least 70% of students will score at or above a milestone score of 1 as measured on the “Evaluate Potential Solutions” dimension on the Problem Solving VALUE rubric</td>
</tr>
<tr>
<td>1.4. Evaluate solutions thoroughly (which can include history of the problem, logic/reasoning, for feasibility and impact).</td>
<td>• CCTST-N test of graduates</td>
<td>Each Fall and Spring semester</td>
<td>1.5. At least 70% of students will score at or above a milestone score of 1 as measured on the “Implement Solution” dimension on the Problem Solving VALUE rubric</td>
</tr>
<tr>
<td>1.5. Evaluate the impact of a selected solution.</td>
<td></td>
<td></td>
<td>1.6. At least 70% of students will score at or above a milestone score of 1 as measured on the “Evaluate Outcomes” dimension on the Problem Solving VALUE rubric</td>
</tr>
<tr>
<td>1.6. Analyze thinking throughout the problem solving process by reviewing results relative to the problem defined thoroughly with specific considerations of need for further work.</td>
<td></td>
<td></td>
<td>Increase overall score by statistically significant difference</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Assessment Methodologies</td>
<td>Frequency of Assessment</td>
<td>Benchmark</td>
</tr>
<tr>
<td>----------</td>
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<td>-------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>2.1. Faculty will infuse classes with Problem Based Learning.</td>
<td>• Full-time APPDOs – a total count of FT faculty who include a teaching APPDO goal.</td>
<td>Annual</td>
<td>90% of FT faculty members will have a PBL-related APPDO objective</td>
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<tr>
<td>2.2. Faculty and staff will acquire professional development related to problem-solving methods.</td>
<td>• Attendance count(s) to measure reach of annual institution-wide PBL professional development event(s).</td>
<td>Annual</td>
<td>The College will deliver at least one annual institution-wide PBL professional development event. At least 60% of FT faculty and 60% FT staff will attend one or more (PT faculty and PT staff will be invited, but their attendance is voluntary and not mandatory)</td>
</tr>
<tr>
<td>2.3. Staff members who work directly with students will incorporate problem-solving methods into their programming.</td>
<td>• Satisfaction surveys from participants who attend PBL professional development events.</td>
<td>Annual</td>
<td>70% of FT student support staff members will include problem-solving methods in their student activities</td>
</tr>
<tr>
<td>2.4. Students will report that their coursework at Germanna has emphasized problem-solving methods.</td>
<td>• Student Support colleagues will provide activity counts of which departments include problem-solving methods in their student support services. Activity Counts will be tracked through the Assistant Dean of Student Development.</td>
<td>Annual</td>
<td>For each CCSSE question aligned to problem solving (5b, 5c, 5d, and 5e), at least 70% of students will respond affirmatively with “quite a bit” or “very much.”</td>
</tr>
<tr>
<td></td>
<td>• CCSSE- 5b-53 – Baseline data from 2014 and 2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Students surveyed in 2020 and 2022 (results will be compared to baseline data from 2014 and 2018)</td>
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</table>
## Table 7. Assessment Timeline

<table>
<thead>
<tr>
<th>Action Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR: 2017 - 2018</strong></td>
</tr>
<tr>
<td>• CCSSE administered April 2018.</td>
</tr>
<tr>
<td>• CCTST-N administered to a sample of students graduating with Associates degrees in April 2018 to collect baseline data.</td>
</tr>
<tr>
<td>• Faculty PBL professional development workshop in February 2018: collect participation counts and satisfaction surveys, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.</td>
</tr>
<tr>
<td>• Faculty PBL assignment collaboration session in April 2018.</td>
</tr>
<tr>
<td>• Co-curricular professional development event on the QEP in January 2018.</td>
</tr>
<tr>
<td><strong>YEAR: 2018 – 2019</strong></td>
</tr>
<tr>
<td>• Course-embedded, PBL assignments: collect student artifacts via EAC platform, score using the AAC&amp;U VALUE Rubric on problem solving, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.</td>
</tr>
<tr>
<td>• CCTST-N administered to a sample of students graduating with Associates degrees Fall and Spring semester.</td>
</tr>
<tr>
<td>• Faculty PBL professional development event(s): collect participation counts and satisfaction surveys, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.</td>
</tr>
<tr>
<td>• Problem solving professional development event(s): staff measurement provided by student support services and tracked through Assistant Dean of Student Development.</td>
</tr>
<tr>
<td>• CTL/QEP Coordinator organizes collection and analysis of a random sample of course-embedded assignments to ensure Problem Based Learning and test validity of the direct assessment processes.</td>
</tr>
<tr>
<td><strong>YEAR: 2019 - 2020</strong></td>
</tr>
<tr>
<td>• Course-embedded, PBL assignments: collect student artifacts via EAC platform, score using the AAC&amp;U VALUE Rubric on problem solving, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.</td>
</tr>
<tr>
<td>• CCTST-N administered to a sample of students graduating with Associates degrees Fall and Spring semester.</td>
</tr>
<tr>
<td>• Administer CCSSE (Spring 2020), analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.</td>
</tr>
<tr>
<td>• Full-time faculty APPDO count: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.</td>
</tr>
</tbody>
</table>
- Faculty PBL professional development event(s): collect participation counts and satisfaction surveys, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Problem-solving professional development event(s): staff measurement provided by student support services and tracked through Assistant Dean of Student Development.
- CTL/QEP Coordinator organizes collection and analysis of a random sample of course-embedded assignments to ensure Problem Based Learning and test validity of the direct assessment processes.

**YEAR: 2020 - 2021**

- Course-embedded, PBL assignments: collect student artifacts via EAC platform, score using the AAC&U VALUE Rubric on problem solving, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- CCTST-N administered to a sample of students graduating with Associates degrees Fall and Spring semester.
- Full-time faculty APPDO count: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Part-time faculty syllabus review: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Faculty PBL professional development event(s): collect participation counts and satisfaction surveys, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Problem-solving professional development event(s): staff measurement provided by student support services and tracked through Assistant Dean of Student Development.
- CTL/QEP Coordinator organizes collection and analysis of a random sample of course-embedded assignments to ensure Problem Based Learning and test validity of the direct assessment processes.

**YEAR: 2021 - 2022**

- Course-embedded, PBL assignments: collect student artifacts via EAC platform, score using the AAC&U VALUE Rubric on problem solving, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- CCTST-N administered to a sample of students graduating with Associates degrees Fall and Spring semester.
- Administer CCSSE (Spring 2022), analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Full-time faculty APPDO count: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Part-time faculty syllabus review: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Faculty PBL professional development event(s): collect participation counts and satisfaction surveys, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Problem-solving professional development event(s): staff measurement provided by student support services and tracked through Assistant Dean of Student Development.
- CTL/QEP Coordinator organizes collection and analysis of a random sample of course-embedded assignments to ensure Problem Based Learning and test validity of the direct assessment processes.

**YEAR: 2022 - 2023**

- Course-embedded, PBL assignments: collect student artifacts via EAC platform, score using the AAC&U VALUE Rubric on problem solving, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- CCTST-N administered to a sample of students graduating with Associates degrees Fall and Spring semester.
- Full-time faculty APPDO count: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Part-time faculty syllabus review: analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Faculty PBL professional development event(s): collect participation counts and satisfaction surveys, analyze results, track progress for QEP goals, brainstorm improvements based on results and implement those improvements.
- Problem solving professional development event(s): staff measurement provided by student support services and tracked through Assistant Dean of Student Development.
- CTL/QEP Coordinator organizes collection and analysis of a random sample of course-embedded assignments to ensure Problem Based Learning and test validity of the direct assessment processes.
XII. References


Appendix A: QEP Development Committee Membership

<table>
<thead>
<tr>
<th>Committee Member</th>
<th>Time of Service</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamie Lennahan, Ph.D.</td>
<td>Summer 2016 - Spring 2018</td>
<td>QEP Development Committee Chair – Arts &amp; Sciences</td>
</tr>
<tr>
<td>Bryant Payden, Ph.D.</td>
<td>Summer 2016 – Fall 2017</td>
<td>QEP Development Committee Co-chair – Professional &amp; Technical Studies</td>
</tr>
<tr>
<td>Carrie Burr</td>
<td>Fall 2016 – Fall 2017</td>
<td>Student</td>
</tr>
<tr>
<td>Page Durham</td>
<td>Fall 2016 - Spring 2018</td>
<td>Instructional Designer - Distance Learning</td>
</tr>
<tr>
<td>Matthew Fitzgerald</td>
<td>Fall 2016 – Fall 2017</td>
<td>Student Success</td>
</tr>
<tr>
<td>Ruth Fugee</td>
<td>Fall 2016 – Fall 2017</td>
<td>Faculty – Nursing &amp; Health Technologies</td>
</tr>
<tr>
<td>Cheryl Huff</td>
<td>Fall 2016 – Spring 2018</td>
<td>Faculty – Arts &amp; Sciences</td>
</tr>
<tr>
<td>Cindy Pagan</td>
<td>Fall 2016 – Fall 2017</td>
<td>Student</td>
</tr>
<tr>
<td>Jessica Perez</td>
<td>Fall 2016</td>
<td>Writing Instruction Assistant, Tutoring Services</td>
</tr>
<tr>
<td>Matthew Pierce</td>
<td>Fall 2016 – Spring 2018</td>
<td>Lead Instruction Librarian</td>
</tr>
<tr>
<td>Harry Schoeller</td>
<td>Fall 2016 – Spring 2018</td>
<td>Faculty – Professional &amp; Technical Studies</td>
</tr>
<tr>
<td>Eric Vanover</td>
<td>Fall 2016 – Fall 2017</td>
<td>Faculty – Arts &amp; Sciences</td>
</tr>
<tr>
<td>Shashuna Gray, Ph. D</td>
<td>Fall 2017 – Spring 2018</td>
<td>Dean – Arts and Sciences</td>
</tr>
<tr>
<td>Pam Frederick</td>
<td>Fall 2017 – Spring 2018</td>
<td>Dean – Student Development</td>
</tr>
<tr>
<td>Denise Talley</td>
<td>Fall 2017 – Spring 2018</td>
<td>Dean – Professional &amp; Technical Studies</td>
</tr>
<tr>
<td>Patti Lisk, Ph.D.</td>
<td>Fall 2017 – Spring 2018</td>
<td>Dean of Nursing and Health Technologies</td>
</tr>
<tr>
<td>Sandi Pope</td>
<td>Fall 2017 – Spring 2018</td>
<td>Director of Student Activities</td>
</tr>
<tr>
<td>Name</td>
<td>Dates</td>
<td>Department</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>April Morgan, Ph.D.</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Nursing and Health Technologies</td>
</tr>
<tr>
<td>Nicole Munday, Ph.D.</td>
<td>Fall 2017 – Spring 2018</td>
<td>Associate Director of Assessment</td>
</tr>
<tr>
<td>Heather Diritto</td>
<td>Fall 2017 – Spring 2018</td>
<td>Transfer Counselor</td>
</tr>
<tr>
<td>Debra Rezendes</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Arts &amp; Sciences</td>
</tr>
<tr>
<td>Misty Mesimer</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Nursing and Health Technologies</td>
</tr>
<tr>
<td>Jessica Matheson</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Arts &amp; Sciences</td>
</tr>
<tr>
<td>Neil Mairs</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Professional &amp; Technical Studies</td>
</tr>
<tr>
<td>Tracey Williams</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Nursing and Health Technologies</td>
</tr>
<tr>
<td>Diane Critchfield</td>
<td>Fall 2017 – Spring 2018</td>
<td>Faculty – Arts &amp; Sciences</td>
</tr>
<tr>
<td>Jennifer Hamilton</td>
<td>Fall 2017 – Spring 2018</td>
<td>Assistant Registrar</td>
</tr>
<tr>
<td>Jeanne Wesley, Ph.D.</td>
<td>Fall 2017 – Spring 2018</td>
<td>Vice President of Academic Affairs and Workforce Development</td>
</tr>
<tr>
<td>Jim Solomon</td>
<td>Spring 2017 – Spring 2018</td>
<td>Graphic Designer – Marketing</td>
</tr>
<tr>
<td>Mark Haines</td>
<td>Spring 2018</td>
<td>Assistant Dean of Student Development</td>
</tr>
<tr>
<td>John Davis, Ph.D.</td>
<td>Spring 2018, Administrative Liaison</td>
<td>Vice President of Administrative Services</td>
</tr>
</tbody>
</table>
Appendix B: Survey of Advisory Boards and Results

Germanna Community College (GCC) is undergoing our 10-year reaffirmation review. As part of this process we need input from the community on how our students meet employment requirements.

As a member of one of GCC’s advisory board your knowledge of our graduate’s abilities will be invaluable to this process. Please complete and turn in the survey before you leave.

What type of business are you: ______________________________________________

For each item identified below, circle the number that best fits your judgment of the importance of the skill in our graduates. Use the scale below to select the quality number.

<table>
<thead>
<tr>
<th>Skills Desired</th>
<th>Scales</th>
<th>Item</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>1 2 3 4 5</td>
<td>Problem Solving</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Communications - written</td>
<td>1 2 3 4 5</td>
<td>Communications - oral</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Technical skills</td>
<td>1 2 3 4 5</td>
<td>Ability to work in groups</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Analytical skills</td>
<td>1 2 3 4 5</td>
<td>Report writing</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

For each item identified below, circle the number that best fits your judgment of the quality of the skill in our graduates. Use the scale below to select the quality number.

<table>
<thead>
<tr>
<th>Minimally Skilled</th>
<th>Highly Skilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Skills Observed in Graduates

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale</th>
<th>Item</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>1 2 3 4 5</td>
<td>Problem Solving</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Communications - written</td>
<td>1 2 3 4 5</td>
<td>Communications - oral</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Technical skills</td>
<td>1 2 3 4 5</td>
<td>Ability to work in groups</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Analytical skills</td>
<td>1 2 3 4 5</td>
<td>Report writing</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

What level(s) of education do you require for potential employees?
Please check all that apply:

- High School Diploma
- Certificate
- Associate’s Degree
- Bachelor’s Degree

If given the opportunity, would you employ a graduate from GCC?
Please check one answer:

- Yes
- No

Have you employed any graduates from GCC within the past three years?
Please check one answer:

- Yes
- No

What are the strengths of Germanna graduates?

Are there any qualities or skills you have found lacking in recent Germanna graduates?

Use the reverse side for additional comments
Advisory Board Survey Results

Q2 For each item identified below, select the number that best fits your judgment of the importance of the skill in our graduates. Use the scale below to select the quality number. Skills Desired.

Q3 For each item identified below, circle the number that best fits your judgment of the quality of the skill in our graduates. Use the scale below to select the quality number. Skills observed in Graduates.

Q4 What level(s) of education do you require for potential employees. Please check all that apply.

Q5 If given the opportunity, would you employ a graduate from GCC?

Q6 Have you employed any graduates from GCC within the last three years?

Answered: 36  Skipped: 3

Answered: 33  Skipped: 6

59
Appendix C: QEP Faculty Survey

The survey was administered via SurveyMonkey between September 20-28, 2016 to all teaching faculty, full and part-time. The survey was publicized at College Learning Day on September 20 via flyers on tables and via periodic emails sent to all faculty during the survey period. The survey consisted of five questions, and respondents were asked to identify the course prefix of the majority of courses they teach, as well as respond to four “choose all that apply” questions. The total number of respondents was 79, with the number of responses varying for each question.

1. What is the course prefix for the majority of the courses you teach at Germanna? (e.g. ENG)

2. Please rate how often YOUR CURRICULUM incorporates each of the following problem solving skills: Never Addressed, Rarely Addressed, Frequently Addressed
   - Identify and define problems
   - Identify multiple strategies for solving problems
   - Select and use appropriate concepts and methods to solve problems
   - Evaluate multiple solutions and discern the best solution based on analysis of data.
   - Display awareness and understanding of one’s thought process during the problem solving process to improve the problem-solving process.

3. Identify which of the following activities you currently use in your course to teach and assess problem-solving skills. Choose all that apply:
   - Essays/papers
   - Group Projects
   - Presentations
   - Reflection Assignments
   - Exams
   - Homework Assignments
   - Other: Please Describe (include text box to allow for specification)

4. What challenges do you face in teaching problem solving within your classroom?
   - Students are unprepared.
   - Students are unaware of their problems.
   - Learning outcomes in my course are inconsistent with problem solving.
   - I do not feel confident teaching problem solving skills.
   - Other: Please Describe (include text box)

5. What kinds of professional development and resources do you think would help you improve how you teach and assess problem solving? Choose all that apply:
   - Sharing of best practices
• Expert speakers
• Training and workshops
• Discipline specific problem solving resources
• Budgetary resources
• Other: Please Describe (include text box)

Results

Please rate how often YOUR CURRICULUM incorporates each of the following problem solving skills:

Evaluate multiple solutions and discern the best solution based on analysis of data

• Rarely Addressed: 13.64% of respondents
• Somewhat Addressed: 39.39%
• Frequently Addressed: 46.97%

Display awareness and understanding of one’s thought process during the problem solving process

• Rarely Addressed: 10.61%
• Somewhat Addressed: 42.42%
• Frequently Addressed: 46.97%

Identify which of the following you currently use in your course to teach assess problem-solving skills:

• Homework Assignments: 80.3%
• Exams: 68%
• Other: 28% of “Other” responses reported class discussions, while 32% reported lab activities.

What challenges do you face in teaching problem solving within your classroom?

• 74.14% of respondents chose “Students are unprepared”
• 58.62% of respondents chose “Students are unaware of their problems”
• In addition, most “Other” responses also fell into the category of “students are unprepared.”

What kinds of professional development and resources do you think would help you improve how you teach and assess problem solving? N=59

• Sharing of best practices: 77.97%
• Training and Workshops: 55.93%
• Discipline specific problem solving resources: 64.41%
Appendix D: Revised APPDO Form

GERMANTNA COMMUNITY COLLEGE

Annual Performance and Professional Development Objectives Faculty/Supervisor Agreement Form

Guidelines and Instructions

Purpose: To promote high performance and continuous improvement in the areas of Teaching, Service, Scholarly and Creative Engagement, and Institutional Responsibility with the goal of enhancing student success.

Guiding Principles:

- Annual Performance and Professional Development Objectives (APPDO) are integrated with Evaluation and with Reward and Recognition programs. They each provide inputs into one other.
- APPDOs are established each year for all faculty members regardless of the length of their appointment.
- Each faculty member should establish three to five objectives in one or more of the four performance domains: Teaching, Service, Scholarly and Creative Engagement, and Institutional Responsibility in consultation with their supervisor.
- The supervisor may add, cut, or modify APPDOs for the faculty member. In instances where the faculty member and supervisor disagree, they should work to resolve that disagreement, but the supervisor will make the final determination about which APPDOs will be assigned to the faculty member for the semester/calendar year.
- All four performance domain areas are not required each year, but it is expected that each one will appear at least once over a multi-year appointment period.
- All APPDOs should be clearly stated in one or two sentences.
- All APPDOs should specify a specific outcome, not describe an activity. Examples include “Incorporate service learning activities into my instruction” or “complete the redesign of my psychology course,” instead of “attend service learning conference” and “evaluate different ways of designing my course for distance learning.”
- APPDO statements should also include a list of appropriate activities that support the achievement of the objective as well as those activities that can be used to measure its progress or completion (e.g. Objective = Redesign X Course; supporting activities include review the literature on information literacy, evaluate instructional software, redesign syllabi, etc.).
- APPDOs fall into two separate categories: Performance or Development
  - Performance Objective: produce an outcome, product, or successful completion of a service activity, etc. during the year.
  - Development Objective: acquire knowledge, skill, or ability in a targeted area with a specific learning objective in mind as well as a description of how that objective will contribute to better performance.
- All faculty are expected to set technology APPDOs within the first three semesters as needed (refer to the technology APPDO section of the College evaluation plan).
Annual Performance and Professional Development Objectives Faculty/Supervisor Agreement Form

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Position Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean/supervisor Name</td>
<td>Position Title</td>
</tr>
</tbody>
</table>

Period Covered by These Objectives (semester/year):

<table>
<thead>
<tr>
<th>I. Objective Statement:</th>
</tr>
</thead>
</table>
| **Domain:** | __Teaching   ___Service    ___Scholarly and Creative Engagement  
   ___Institutional Responsibility |
| **Completion Date:** | ___ Fall Semester   ___ Spring Semester    ___ Other: |
| **Supporting Activities, Resources Required, & Target Dates:** |
| **Measures of Success:** |
| **Approval:** | _______ Yes          | Schedule meeting to discuss goal _____ |
|              | No _______ Revise | Yes __ No |
| **Supervisor Comments:** |
| **Interim Assessment/Revision of Objective (if applicable)** |
| **Final Assessment** |
| **Faculty Member’s Assessment** |
| **Supervisor’s Assessment** |

<table>
<thead>
<tr>
<th>II. Objective Statement:</th>
</tr>
</thead>
</table>
| **Domain:** | __Teaching   ___Service    ___Scholarly and Creative Engagement  
   ___Institutional Responsibility |
| **Completion Date:** | ___ Fall Semester   ___ Spring Semester    ___ Other: |
| **Supporting Activities, Resources Required, & Target Dates:** |
### Measures of Success:

<table>
<thead>
<tr>
<th>Approval:</th>
<th>Yes</th>
<th>Revise</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule meeting to discuss goal:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Supervisor Comments:**

**Interim Assessment/Revision of Objective (if applicable):**

**Final Assessment**

- Faculty Member’s Assessment
- Supervisor’s Assessment

### III. Objective Statement:

**Domain:**
- Teaching
- Service
- Scholarly and Creative Engagement
- Institutional Responsibility

**Completion Date:**
- Fall Semester
- Spring Semester
- Other: ____________

**Supporting Activities, Resources Required, & Target Dates:**

### Measures of Success:

<table>
<thead>
<tr>
<th>Approval:</th>
<th>Yes</th>
<th>Revise</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule meeting to discuss goal:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Supervisor Comments:**

**Interim Assessment/Revision of Objective (if applicable):**

**Final Assessment**

- Faculty Member’s Assessment
- Supervisor’s Assessment

### IV. Objective Statement:

**Domain:**
- Teaching
- Service
- Scholarly and Creative Engagement
- Institutional Responsibility

**Completion Date:**
- Fall Semester
- Spring Semester
- Other: ____________

**Supporting Activities, Resources Required, & Target Dates:**
Germanna Community College

Measures of Success:

Approval: _______ Yes ________ No _______ Revise ________

Schedule meeting to discuss goal ________ Yes ________ No

Supervisor Comments:

Interim Assessment/Revision of Objective (if applicable)

Final Assessment

Faculty Member’s Assessment

Supervisor’s Assessment

V. Objective Statement:

Domain: ___Teaching ___Service ___Scholarly and Creative Engagement ___Institutional Responsibility

Completion Date: ___ Fall Semester ___ Spring Semester ___ Other:

Supporting Activities, Resources Required, & Target Dates:

Measures of Success:

Approval: _______ Yes ________ No _______ Revise ________

Schedule meeting to discuss goal ________ Yes ________ No

Supervisor Comments:

Interim Assessment/Revision of Objective (if applicable)

Final Assessment

Faculty Member’s Assessment

Supervisor’s Assessment
<table>
<thead>
<tr>
<th>Objective Approval Signatures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty ______________________ Date ______________________</td>
</tr>
<tr>
<td>_____________________________</td>
</tr>
<tr>
<td>Dean/Supervisor ______________ Date ______________________</td>
</tr>
<tr>
<td>_____________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interim Assessment/Objective Revision Signatures (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty ____________________________________________________</td>
</tr>
<tr>
<td>_____________________________ Date ______________________</td>
</tr>
<tr>
<td>_____________________________</td>
</tr>
<tr>
<td>Dean/Supervisor ______________ Date ______________________</td>
</tr>
<tr>
<td>_____________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final Assessment Signatures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty ______________________ Date ______________________</td>
</tr>
<tr>
<td>_____________________________</td>
</tr>
<tr>
<td>Dean/Supervisor ______________ Date ______________________</td>
</tr>
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<td>_____________________________</td>
</tr>
</tbody>
</table>
Appendix E: Revised Classroom Observation Form

GERMANNAN COMMUNITY COLLEGE

Class Observation Form

DIRECTIONS

1. This form is intended for observations of face-to-face class meetings. For online class observations, the dean/supervisor should use Quality Matters™ or a similar rubric.
2. The dean/supervisor will review with the instructor the class observation process and expectations for the class observation.
3. The instructor should identify possible course(s), section(s), day(s), and time(s) for the class observation. The dean/supervisor will make the final decision about which class will be observed.
4. **Part 1: Background Information** on this form will be completed by the instructor and forwarded to the dean/supervisor observer at least 24 hours before the class observation.
5. **Part 2: Assessment** on this form will be completed by the dean/supervisor observer and returned to the instructor no more than one week after the observation.
6. **Part 3: Response** on this form will be completed by the instructor and returned to the dean/supervisor observer no more than one week after receiving the Part 2 Assessment.
7. The instructor and dean/supervisor observer will meet in person no more than two weeks after the class observation to discuss the class session, the assessment, and the instructor’s response. The instructor and supervisor observer will identify both areas of excellence and areas of potential improvement in the instructor’s practice. The instructor and supervisor observer will identify specific strategies for addressing areas of potential improvement.

<table>
<thead>
<tr>
<th>Instructor Name</th>
<th>Position Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor Observer Name</td>
<td>Position Title</td>
</tr>
<tr>
<td>Catalog/Section Number of Observed Class</td>
<td>Course Title</td>
</tr>
<tr>
<td>Date and Start/End Times of Observation</td>
<td>Location</td>
</tr>
</tbody>
</table>
**PART 1: OBJECTIVES**

(To be completed by the instructor at least 24 hours before the class observation.)

| 1. | What are the **student learning outcomes** for this class session? |
| 2. | What methods will be used to foster **instructor-student interaction**? |
| 3. | What methods will be used to foster **collaborative learning among students**? |
| 4. | What methods will be used to facilitate **problem-based learning**? |
| 5. | What methods will be used to develop students’ **high order cognitive skills** (e.g. analyzing, evaluating, creating)? |
| 6. | What methods will be used to meet a **diversity of learning styles**? |
| 7. | What **support materials** (technology, media, handouts, etc.) will be used to achieve instructional objectives? |

**PART 2: ASSESSMENT**

(To be completed by dean/supervisor observer no more than one week after the class observation.)

1. The instructor was prepared for the class session.
<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>PARTIALLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The instructor described the learning outcomes to students at the start of the class session.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The instructor successfully interacted with students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The instructor facilitated student-to-student interaction to achieve instructional objectives.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The instructor employed methods to facilitate problem-based learning.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The instructor employed methods to develop students’ high order cognitive skills (e.g. analyzing, evaluating, creating).</td>
<td></td>
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<td></td>
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<td>---</td>
</tr>
<tr>
<td>7. The instructor employed methods to target a variety of student learning styles.</td>
<td>YES</td>
<td>NO</td>
<td>PARTIALLY</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The instructor effectively used support materials (e.g., technology, media, handouts, etc.) to achieve instructional objectives.</td>
<td>YES</td>
<td>NO</td>
<td>PARTIALLY</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. The stated learning outcomes were achieved.</td>
<td>YES</td>
<td>NO</td>
<td>PARTIALLY</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. The instructor summarized learning outcomes for the class session, explained how they connect to previous and to upcoming learning outcomes, and communicated to students, both verbally and in writing (e.g. through Blackboard, on the chalkboard, in the syllabus), the assignments due for the next class session(s).</td>
<td>YES</td>
<td>NO</td>
<td>PARTIALLY</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Within the categories of (1) instructional design, (2) instructional delivery, (3) instructional effectiveness, and (4) instructional expertise, identify a total of 3-5 specific instances where the instructor exceeded expectations. (If the instructor did not exceed expectations in any of the four areas, please note that.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Within the categories of (1) instructional design, (2) instructional delivery, (3) instructional effectiveness, and (4) instructional expertise, identify a total of 3-5 specific teaching</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
behaviors the instructor could improve upon. (Note: A behavior targeted for improvement does not necessarily indicate subpar performance; instead, it may indicate the potential to further develop an excellence.)

Comments:

PART 3: RESPONSE

(To be completed by the instructor no more than one week after reviewing the completed Part 2 above.)

Instructor comments after reviewing Part 2 above or after meeting with the supervisor observer to discuss Part 2 above.

Comments:

______________________________

_______ ___________________________
Instructor Signature Date

Dean/Supervisor Observer Signature Date
Appendix F: QEP Glossary

Authentic Assessment:
“a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills” (Mueller, 2005, p. 2). An example of an authentic assessment in a communications class is an assignment in which students create and deliver a persuasive speech. An example of an inauthentic assessment in a communications class is a multiple-choice test containing questions about the components of effective persuasive speeches.

Authentic Problem:
“presents a situation that mimics what students would find in the real world, often in the workplace” (Davidson & Major, 2014, p. 26). For example, an assignment in which nursing students are presented with a hypothetical case and required to identify a health problem is an assignment centered on an authentic problem.

Course-Embedded Assessment:
An assessment that is a required assignment or test in a course. Such an assessment is an essential component of the course design, rather than an “add-on,” and receives a course grade to motivate students to deliver their best performance. A course-embedded assessment may or may not be an authentic assessment.

Metacognition:
“The activity of monitoring and controlling one’s cognition” (Young & Fry, 2008, p. 1). Schraw & Dennison (1994) explain that “Metacognitive awareness allows individuals to plan, sequence, and monitor their learning in a way that directly improves performance” (p. 1).

An assignment that requires students to answer metacognitive prompts develops metacognitive skills. Metacognitive prompts include questions such as:

- What strategies am I using that are working well or not working well to help me learn? (Tanner, 2012, p. 115)
• How much time have I spent pursuing this approach in an attempt to solve the problem? Do I need to modify my approach to be successful? Given what I already know, how might I modify my approach to be successful?

**Problem Based Learning:**
A pedagogical approach in which “instructors facilitate learning by having students tackle complex, multifaceted problems in small groups while providing scaffolding, modeling experiences, and opportunities for self-directed learning” (Slavich & Zimbardo, 2012, p. 573).

**Problem Solving:**
“Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal” (Association of American Colleges & Universities [AAC&U], 2009, para. 2).

**Scoring (vs. Grading):**
Scoring a student work product with an AAC&U VALUE rubric is different from grading. When applying an AAC&U VALUE rubric to student work, assessors consider each dimension/criterion on the VALUE rubric. Only the VALUE rubric criteria and accompanying performance descriptions are considered when scoring student work. Grading rubrics, on the other hand, may contain additional criteria, including criteria unrelated to student learning.

**Student Work Product (or Artifact of Student Learning):**
A student work product is a creation or performance that is submitted by a student to meet the requirements of a course assignment or course exam. Examples of student work products include speeches, laboratory worksheets, argument essays, and tests.

**Framing Language from the AAC&U Problem Solving VALUE Rubric**

**Contextual Factors:**
Constraints (such as limits on cost), resources, attitudes (such as biases) and desired additional knowledge which affect how the problem can be best solved in the real world or simulated setting.
Critique:
Involves analysis and synthesis of a full range of perspectives.

Feasible:
Workable, in consideration of time-frame, functionality, available resources, necessary buy-in, and limits of the assignment or task.

“Off the shelf” solution:
A simplistic option that is familiar from everyday experience but not tailored to the problem at hand (e.g. holding a bake sale to "save" an underfunded public library).

Solution:
An appropriate response to a challenge or a problem.

Strategy:
A plan of action or an approach designed to arrive at a solution. If the problem is a river that needs to be crossed, there could be a construction-oriented, cooperative (build a bridge with your community) approach and a personally oriented, physical (swim across alone) approach. An approach that partially applies would be a personal, physical approach for someone who doesn't know how to swim.

Support:
Specific rationale, evidence, etc. for solution or selection of solution.

Reflection:
Reflection refers to analyzing one's thinking at a given stage of the problem-solving process in order to improve learning and performance. Assessments that require students to demonstrate reflection must capture a student's thought process verbally or in writing. (See Related Term: Metacognition.)

“Ill-defined” or “ill-structured” problem:
A complex problem with multiple valid solutions that requires students to identify the relevant components of the problem— including those factors that may not be readily apparent— when determining the most effective approaches for solving the problem.

**Self-directed Learning:**

“Students determine the direction of their problem-solving process, rather than having the instructor determine it for them” (Davidson & Major, 2014, p.27).
Appendix G: Marketing Timeline

Promotion Objective:

- Faculty/staff – Educate and engage (September – October)
- Students – Development awareness (September) educate and engage (October)

September 2017

Start marketing campaign for faculty and staff

- Symbol on monitors (IT)
- Slide show on TVs (IT)
- Banners hung in all buildings (facilities)
- Web with Symbol (IT)
- Introductory email (Administration)
- Slide show at faculty meeting/Convocation (Academic affairs)
- Distribution QEP PowerPoint to all faculty

Start marketing campaign for students

- Meet with Student Success to plan Welcome Day activities
- Student Welcome Day
  - Banners hung for Student Success day (facilities)
  - Name the bear contest - grand prize & giveaways for entrants (student success)
  - QEP introduction at Fredericksburg and Locust Grove (QEP Co-chairs)
  - Slide show on TVs
  - Facebook launch of Bear as QEP Symbol
- Student Success Day
  - Name the bear winner
  - Update of Facebook with bear name
  - QEP Giveaways
  - Push to like QEP Symbol on Facebook
  - QEP symbol on all mousepads for all computer labs (1200)
**Appendix H: CTL/QEP Coordinator Position Description**

Germanna Community College seeks a creative and collaborative educator to lead the Center for Teaching and Learning. The Coordinator will provide the leadership and direction that is essential to coordinate effectively the college's Quality Enhancement Plan. The Coordinator will have considerable experience teaching in higher education and managing college-wide programs and initiatives.

**Statement of Duties:** Aligning with the college’s strategic plan and metrics, this position is responsible for managing the efforts of the Center for Teaching and Learning (CTL), which provides leadership and vision for the continuous improvement of teaching and learning at Germanna Community College by transforming teaching and learning to meet the needs of all students. The coordinator is responsible for developing strategies, services, and support for faculty and staff for effective teaching practices and student success. The coordinator, with the help of a part time administrative assistant, is responsible for coordinating the college’s Quality Enhancement Plan and facilitating collaborative initiatives with academic and support units. The QEP is a college-wide initiative that is a component of the College's reaccreditation for the Southern Association of Colleges and Schools Commission on Colleges.

**Responsibilities:**

- Coordinate the Quality Enhancement (QEP) planning and action steps necessary to lead the QEP Implementation team in the following areas: 1) designing and implementing strategies, 2) monitoring progress, 3) assessing outcomes, and 4) ensuring the QEP goals and objectives are met in a timely manner.

- Organize, plan, and lead faculty development opportunities to improve student success outcomes including workshops, Professional Learning Communities, seminars, forums, and other formats as appropriate and required to engage and support faculty with an added emphasis on problem based learning. Evaluate program effectiveness and utilize and refine existing training programs and materials.

- Participate in broader college efforts to meet strategic goals.
• Assist in the compilation, analysis, and dissemination of data from surveys, student learning outcomes, and other aspects of assessment related to teaching and learning and the QEP.

• Manage, monitor, and assist with the fiscal administration for CTL and QEP, including but not limited to budgets, funding, contracts, travel, and purchasing.

• Experience with technology and its intersection with teaching and learning.

Minimum Requirements:

• A master’s degree from a regionally accredited university in an academic discipline.

• Experience teaching at the college/university level.

• Demonstrated skills related to innovative teaching methods in problem based learning.

• The ability to collaborate effectively with diverse constituencies college-wide.

• Demonstrated excellence in course design, evidence-based instructional strategies, and assessment of student learning.

• Experience coordinating or managing projects or institutional endeavors.

• Strong analytical skills with the ability to demonstrate a high level of emotional intelligence.

• Excellent written and verbal communication skills.

Preferred Qualifications:

• A Ph.D. in an academic discipline with considerable higher education teaching experience.

• Understanding and commitment to the mission and philosophy of a public, comprehensive community college.

• Multi-campus, community college experience.

Additional Information:

This is a 9-month restricted faculty position. Salary is commensurate with rank and credentials. 
Salary range: $62,270 – $65,500, with additional compensation for summer work, full state benefits apply.