CALHOUN COMMUNITY COLLEGE

DECATUR, ALABAMA

QUALITY ENHANCEMENT PLAN

WHY is my pizza burning?

AN EPIC JOURNEY IN CRITICAL THINKING

Your Community. Your College. Your Future.

ON-SITE REVIEW DATES

October 19-21, 2021

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<u>**EXECUTIVE SUMMARY**</u>

The Calhoun Community College QEP titled "Why is My Pizza Burning?" was developed through ongoing institutional review and planning processes, with broad-based stakeholder input of institutional data to include the evaluation of Institutional General Education Learning Outcomes, observations of student challenges by faculty, staff, students, and community representatives, and review of annual ETS Proficiency Profile assessment results. Each source indicated a need to address the critical thinking (CT) skills of our students.

Further, improving students' CT is in alignment with the following: (1) Institutional Mission: Promote student success and community development through quality education, cultural enrichment, and workforce training; (2) the Vision of the College: Success for every student, the community, and the College; (3) the Institutional General Education Outcome #1: Ability to think critically; and (4) Career-Technical Advisory Boards Necessary Workplace Skills.

Therefore, a literature review of best practices in teaching and assessing CT skills was conducted which clarified the need for students to develop both cognitive skills and the disposition/motivation required to apply CT techniques. Moreover, to effectively incorporate these strategies for both academic and career-technical students, a commitment to faculty professional development was deemed necessary.

The topic identification process led to the following QEP Goal, measurable Learning Outcomes, with an annual average of $101,117 ($606,700 total) in support of the necessary human and financial resources to initiate, implement, and complete the QEP.

The overall goal of the QEP and its related outcomes are as follows:

QEP GOAL: **Students will be able to implement critical thinking techniques that are necessary to reach reasoned conclusions.**

The following outcomes will be utilized to measure the impact of the College's QEP:

- **OUTCOME 1:** Students will be able to apply critical thinking skills appropriate to their academic discipline.

- **OUTCOME 2:** Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.

- **OUTCOME 3:** Students will be able to recognize the value of critical thinking skills.

- **OUTCOME 4:** Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.

Greater academic success should lead to improved retention and progression rates and ultimately to higher graduation rates of students at the college—truly "Success for every student, the community, and the College" (Calhoun Community College, 2021c).

CALHOUN COMMUNITY COLLEGE

"WHY IS MY PIZZA BURNING?"

SECTION A: TOPIC IDENTIFICATION

Section A: Topic Identification

- Institutional Planning Process
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Calhoun Community College has identified critical thinking as our QEP topic based on institutional data and institutional planning processes. As we developed the QEP, "Why is My Pizza Burning?" we included a wide range of constituents and considered the needs of our college and its capacity to carry out this QEP. The topic identification section outlines multiple components including our planning processes, institutional needs, and the literature review.

Institutional Planning Processes

Through surveys, self-evaluation, and a review of Institutional General Education student learning outcomes, we have made the following discoveries: (1) many of our students need enhanced critical thinking skills, (2) faculty should spend more time explicitly teaching critical thinking strategies in the classroom, and (3) a college-wide effort focused on how to teach critical thinking strategies would be instrumental in increasing the critical thinking skills of our students. Critical thinking is one of the three Institutional General Education student learning outcomes (SLO) measured by the college in all courses. The college's SLO plan states Calhoun Community College graduates are expected to do the following: (1) think critically, (2) communicate effectively, and (3) act professionally.

These three General Education student learning outcomes are the pillars supporting the mission and vision of the college. These learning outcomes are a critical component of Calhoun's Institutional Effectiveness Plan to improve student learning. As such, Institutional Research promotes the use of an institutional assessment cycle. In a collaborative effort, our Divisions of Business/CIS, Health, Humanities and Social Sciences, Technologies, and the Academic Assessment Committee are tasked with creating an action plan to assess each of the student learning outcomes. Each division is responsible for documenting SLO data and implementing interventions for increased student success.

Enhancing the ability of Calhoun students to think critically will improve the quality of the education received at the college. As our students enter the workforce, this enhanced critical thinking will ultimately impact the community and workforce. Our QEP will also complement efforts on our Pathways to Success grant where the main goal is "to develop a well-trained, flexible, and productive workforce." The Pathways to Success grant also aims to improve the student's ability to think critically and solve workforce-based problems.

Topic Selection & Development

Our QEP is designed to support the mission and vision of the college. The mission of Calhoun Community College is to promote student success and community development through quality education, cultural enrichment, and workforce training. The vision of the college is success for every student, the community, and the college. Utilizing the framework of the QEP, faculty will focus their efforts on teaching critical thinking strategies to enhance the quality education being delivered to our students to move students from novice to advanced thinkers. The goal of the QEP is for Calhoun Community College students to be able to implement critical thinking techniques necessary to reach reasoned conclusions.

The following outlined timeline provides an overview of the topic selection activities and institutional planning for the QEP. The QEP Focus Committee met weekly via video conference to plan and guide the QEP development process, solicit faculty buy-in, and meet with all constituency groups to update them on progress and to develop implementation strategies. The planning and evaluation process of the QEP for the college was broken down into three main phases: (1) researching and refining the topic, (2) gaining broad-based support, and (3) finalizing the delivery.

1. **Researching and Refining the Topic** (Appendix A Focus Committee Agenda/Minutes Sample)
   a. 7/13/2020 – President Burke invites Mr. Mark Branon to serve as the QEP Focus Committee Chair
   b. 7/21/2020 - QEP Focus Committee holds first meeting via video conference
   c. 8/2020 to 10/2020– Choose general topic through surveys and discussion
   d. 9/2020 - Conduct scholarly research on topic and begin literature review
   e. 10/1/2020 – 12/1/2020
      i. Narrow Topic to specific focus and expand scholarly research
      ii. Choose project name and logo
      iii. Seek participation from students, faculty, staff, and the community
      iv. Begin development of a delivery plan and program framework
      v. Search out PD and other schools with similar projects from the past
2. **Gaining Broad-Based Support** (Appendix A: Focus Committee Agenda/Minutes Sample)
   a. 12/1/2020 – 5/1/2021
      i. Begin marketing campaign with full implementation by Fall 2021
      ii. Hold student focus group meetings
      iii. Hold Advisory Board and Foundation Board meetings
      iv. Refine delivery plan
         1. Finish literature review

    2. Develop instructional design model

    3. Finalize QEP Program Purpose and Objective Statement

    4. Finalize QEP Learning Outcomes

    5. Develop Assessment Plan and measures of success

   v. Select professional development activities for faculty for future PD sessions

  b. 1/6/2021 – QEP Faculty Kick-off

  c. 1/7/2021 – QEP Staff Kick-off

  d. 3/8/2021 – Dr. Lee Taylor (QEP Consultant) began work with QEP Focus Team

  e. 3/12/2021 – Faculty Professional Development on teaching CT techniques

3. **<u>Finalizing Delivery</u>** (Appendix A: Focus Committee Agenda/Minutes Sample)

  a. 2/23/2021 – Finalize delivery plan and measurable objectives for final project. Begin executive summary overview to submit to Institutional Research (IR) office.

  b. 3/1/2021 – Final Draft of Executive Summary Overview to IR office

  c. 3/16/2021 – 8/2021 – Collect data and prepare QEP Final Report for submission

  d. 5/24/2021 – Summer Pilot Program Initiated in ENG 101

  e. 8/2021 – Deliver Pilot Values Survey (students) and Section Evaluation Form (faculty)

  f. 8/15/2021 – Submit QEP report to IR office

Calhoun's Institutional Data

   According to the 2019 ETS Proficiency Profile assessment administered to Calhoun's students during the college's assessment week, only 2% of Calhoun students were proficient at critical thinking and only 13% were considered marginal. Therefore, 85% of the students lacked CT skills at the competency level. However, while the ETS data were low, our institutional faculty-reported student learning outcome (SLO- Ability to think critically) data were considerably higher. This discrepancy may suggest more professional development is needed to better define CT, its implementation process steps, and its intended outcome, as well as the creation of appropriate CT instructional prompts and assessment strategies.

   Based on responses from several surveys and focus groups, it was apparent that students needed more opportunities to think critically and that they could not answer "why" or "how" questions satisfactorily. The development of Calhoun's QEP topic was a data-driven process that began in early 2020 and became an ongoing process of analysis, evaluation, and re-evaluation. The following narrative outlines the topic selection process.

- **December 2019**

   The Strategic Planning Council met to review current General Education SLO data and the results of the ETS Proficiency Profile. From this institutional data, four potential QEP topic categories emerged:

(1) the three college-wide student learning outcomes (i.e., professionalism, communication, and critical thinking), (2) critical thinking/problem solving, (3) digital literacy, and (4) retention/recruitment. These topics would form the basis of the upcoming survey in January 2020 in an effort to narrow the QEP topic.

- **January 2020**

A QEP topic selection survey was sent to current students, faculty, staff, alumni, advisory board members, and elected officials. In order of importance, the respondents were asked to rank each of the topics. Table A-1 shows a total of 594 votes were received from this survey, and Table A-2 shows the overall responses from each of these groups.

Table A-1: QEP Selection Survey Total Votes (January 2020)
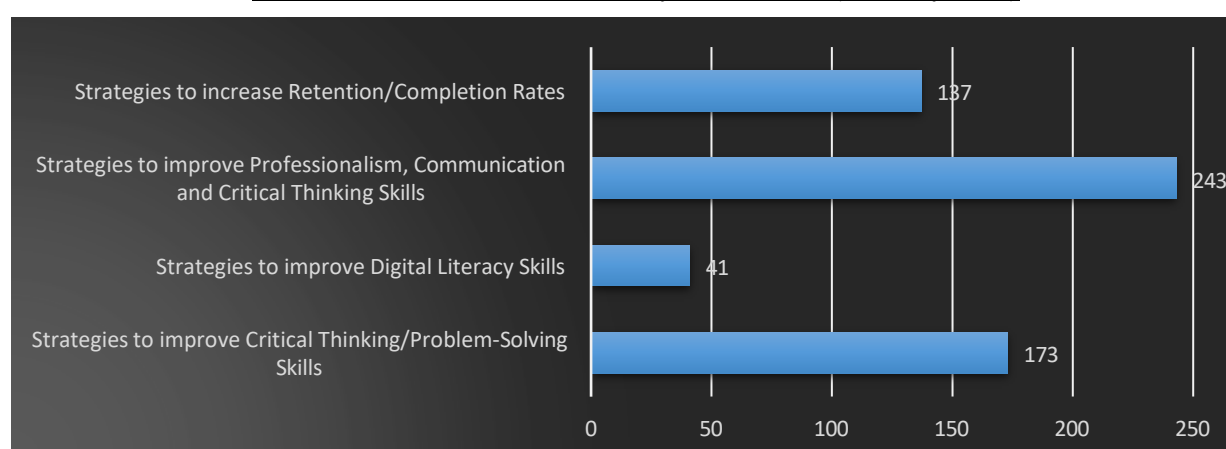
Table A-2: Topic Selection Survey (January 2020)

	Students	Staff & Administration	Adjunct Faculty	Full Time Faculty	Community Members	Calhoun Alumni	Elected Officials	Other
Critical Thinking/ Problem Solving	106	29	14	18	3	1	1	1
Digital Literacy Skills	20	10	2	8	2	0	0	0
Professionalism, Communication & Critical Thinking	123	54	13	41	3	3	1	5
Retention and Completion Rates	85	29	6	14	1	2	0	0

Strategies to improve the college's General Education SLOs received the majority of the votes with 40.9% (243 total votes) while strategies to improve critical thinking and problem-solving skills finished second with 29.1% (173 total votes).

- **March 2020 through May 2020**

Due to the Covid-19 world pandemic, little new progress was made toward selecting a topic. In June 2020, Mark Branon, Dean of Huntsville/Research Park, was appointed as the QEP Focus Committee Chair.

- **June 2020**

The QEP Focus Committee met for virtual weekly meetings. The newly identified QEP Focus Committee used results from the January 2020 QEP Topic Selection survey to quickly identify the highest ranking topics. From these weekly meetings, the committee reviewed additional institutional data, survey results, and advisory board minutes and selected critical thinking as the QEP topic. By doing so, the QEP Focus Committee was able to satisfy not only the top-ranked selection from the survey that focused on the College's General Education student learning outcomes (especially #1: ability to think critically) but also the second-ranked selection that focused on strategies to improve critical thinking and problem-solving skills.

- **September 2020**

To narrow the topic of critical thinking even further, an additional survey was deployed to the administration, full and part-time faculty, and staff.

The following questions were asked:

- What is your current division or department?
- How many years have you worked in post-secondary education?
- In your own words, how would you define or describe critical thinking?
- What strategies do you use to improve students' critical thinking in your division or department?
- How do you evaluate students' critical thinking?
- What professional development opportunities would you suggest for employees to improve students' critical thinking in your division or department?

The 37-page survey report can be found in the QEP Director's files. Results from Question 4 can be found in Appendix B of this document. Question 4 states "What strategies do you use to improve students' critical thinking in your division or department?" A basic analysis of the survey is as follows:

- Sixty-seven percent (67%) of survey respondents identified as working 15 years or less in higher education.
- There was no consistent college definition of critical thinking.

- There was no consistent approach to teaching critical thinking.
- Evaluation of critical thinking appears to be happening more consistently across all divisions of the college.
- Faculty and staff identified a need for teaching strategies that would be useful in teaching students how to think critically.

Naming the QEP

The following is a story as told by QEP Focus Committee Chair, Mr. Mark Branon, during the September 1, 2020, QEP Focus Committee Meeting:

**Why is My Pizza Burning? Historical Context**

My son Eli was 16 years old and a junior in high school. He had scored well on the ACT, successfully passed high school AP exams and many dual enrollment college courses, and was on track to graduate high school with 25 college credit hours and enter his first year of college as a sophomore. Needless to say, I was a proud dad!

But in spite of his academic success, I had doubts whether he was an accomplished critical thinker. One incident in particular gave me pause.

One summer afternoon my teenage children were at home while my wife and I were both at work. My son called. After we exchanged greetings we had the following conversation:

"Why is my pizza burning?" he asked.

At first I was thankful he was being a responsible son and preparing food for his sister and himself. But then I began to worry, since I thought, "I have no idea why your pizza is burning. I had no idea you even knew how to turn on the oven." Worrying how bad the situation may be, I asked, "Is the house on fire?" He replied, "No dad...there is no need to call 911."
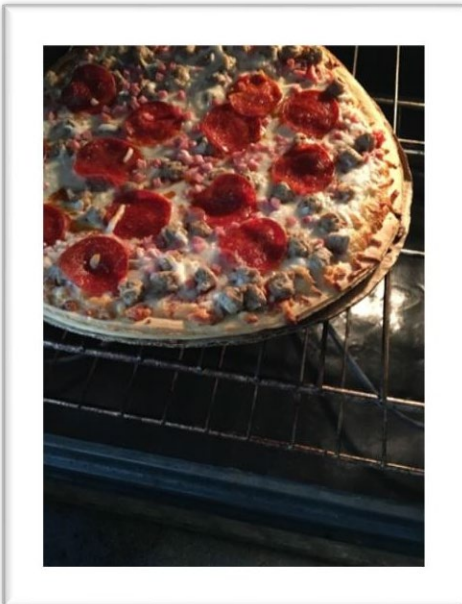
As a parent, I was relieved, but as an educator, I begin to process his original question and to think about how I have failed to properly teach my own son analytical reasoning and problem solving skills…the ability to think critically! My response was simple, "How am I supposed to know? Did you follow the directions on the frozen pizza?" Eli retorted, "Yes sir, I can read." I then asked, "Is it on fire or just smoking?" "Just smoking."

"Ok, that is good. Send me a pic of your pizza."

The picture to the left is the photo I received from my very intelligent child. Yep, you see it now. That's cardboard…beneath the pizza…in the oven. Parenting fail! Educator fail!

The motion was made during the September 8, 2020 Focus Committee meeting to name the QEP "Why is My Pizza Burning?" and carried 100% of the vote.

- **October 2020**

A follow-up survey was deployed to the QEP Focus Committee, Academic Deans, and Department Chairs to (1) determine the goal of the QEP and to (2) formulate an institutional definition of critical thinking.

Stakeholder Involvement in the Design, Development, Implementation, and Evaluation Plan

Beginning March 2021, the QEP Focus Committee Chair met weekly with the QEP consultant, Dr. Lee Taylor. Three sub-committees were developed out of the QEP Focus Committee to assist with implementation and progression through the proposed QEP timeline. These are the Literature Review/Writing committee, Assessment Committee, and Public Relations and Marketing Committee. Each of the committees was comprised of multiple stakeholders – faculty, staff, and administrators. Additionally, most of the committee members served on multiple committees to ensure continuity during the planning process.

Viability of the QEP Plan

Calhoun Community College has allocated adequate resources over the development and five-year implementation of the QEP. These resources include release time for the QEP Director, QEP Administrative Assistant, faculty assistance, professional development costs, assessment activities and related goals. These resources are adequate to develop, sustain, and complete the college-wide implementation of the QEP. The QEP Director will report directly to the Vice-President of Academic Affairs as previously reported. Our QEP Committees are outlined below:

QEP Focus Committee

- Houston Blackwood - Workforce Solutions
- Mark Branon - HSV Administration/Focus Committee Chair
- Donna Estill - Interim VP Academic Affairs (Ex-Officio)
- Symmetris Gohanna - Language and Literature/QEPD
- Debi Hendershot - Planning/Research/Grants (Ex-Officio)
- Takeema Johnson - Advising
- John Jones - Natural Science
- Marty Kellum - Mathematics
- Lawrence Miller - Technology/LCF
- Walt Mintz - Business& CIS
- Tanja Mitchell - HSV Admin/QEP AA
- Tori Norris - Social Sciences
- April Nunn - Language and Literature
- Cathy Simpson - Nursing
- Ina Smith - Disability Services
- Suzanne Turner - Language and Literature
- Jennie Walts - Faculty Development
- Reannon Wilkerson - Health Sciences

QEP Assessment Committee

- Tyler Andrews - Philosophy
- Houston Blackwood - Workforce Solutions
- Mark Branon - HSV Administration/Focus Committee Chair
- John Jones - Natural Science
- Marty Kellum - Mathematics
- Walt Mintz - Business& CIS
- Tori Norris - Social Sciences
- Cathy Simpson - Nursing

QEP Public Relations Committee

- Sherika Attipoe - Public Relations
- Mark Branon - HSV Administration/Focus Committee Chair
- Taylor Burton - Graphics Design
- Donna Estill - Interim VP of Academic Affairs (Ex-Officio)
- Jacob Greene - Webmaster
- Wes Torain - Public Relations
- Jennie Walts - Faculty Development

QEP Writing Committee

- Mark Branon - HSV Administration/Focus Committee Chair
- Donna Estill - Interim VP of Academic Affairs (Ex-Officio)
- Symmetris Gohanna - Language and Literature / QEPD
- Ina Smith - Disability Services
- Jordan Taylor - Language and Literature
- Jennie Walts - Faculty Development

LITERATURE REVIEW

Critical Thinking Definition

The first step in approaching critical thinking is to define the term. While this may at first seem like a simple step, a cursory review of literature discussing critical thinking quickly makes clear there is no universally accepted definition (Bers, 2005; Nold, 2017; Alsaleh, 2020). Alsaleh (2020) presented an excellent summary of the characteristics of many of the definitions of critical thinking in the literature on the subject, which included engagement with a problem or question, examining and choosing a suitable and logical option, evaluating outcomes of thought processes, calculating decisions, and determining the effectiveness of a solution (p. 21). In summary, Alsaleh concluded, "These definitions indicate that [critical thinking] is the ability to apply cognitive skills, such as analyzing, applying, and evaluating when thinking" (p. 22).

Consequently, rather than come to a consensus on a single definition of critical thinking, researchers either create their own definition, as in the case of Fong et al. (2017), or adopt another's definition that matches their conception and context, as in the case of Toshpulatova and Kinjemuratova (2020). Calhoun decided a customized definition would best serve us as we entered into this QEP. As previously shown by the September 2020 survey, the college did not have a universally accepted or well-known definition for critical thinking. From the survey, there were common threads among respondents, but there were 165 individual definitions submitted for critical thinking. These common threads include words like "analyze," "evaluate," and "interpret." Upon evaluation of past definitions of critical thinking, it became evident multiple past definitions had been used in various documents by the college and cited in educational literature:

- Critical Thinking - Graduates will be able to evaluate sources, analyze data, and draw logical conclusions (Calhoun Assessment Manual, 2014).

- Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas and events before accepting or formulating an opinion or conclusion (College Critical Thinking Rubric, 2018).

- Critical thinking is the ability to define and develop solutions to problems or situations that are new to them by taking information learned through coursework and applying it to create and test solutions to achieve a positive outcome or resolution (Rahman, 2019).

- Critical thinking is the art of analyzing and evaluating thought processes with a view to improving them (Paul & Elder, 2020).

Using the above definitions, key words from the previous surveys, and other definitions discovered through the literature review process, the QEP Focus Committee developed four potential definitions for critical thinking and issued a third survey to faculty to choose the official definition accepted by Calhoun for critical thinking. The four potential definitions are as follows, with percentage of votes received for each option as it was written in the survey or with small wording changes:

- Option 1: Critical thinking is the ability to analyze, explain, interpret, and evaluate information to form a belief, theory, or plan of action. (17.6%)

- Option 2: Critical thinking is the ability to analyze, evaluate, and interpret information to reach reasoned conclusions. (52.9%)

- Option 3: Critical thinking is the ability to compile information, evaluate the data, and formulate a response to solve a problem or make a judgement. (11.8%)

- Option 4: Critical thinking is the ability to analyze known facts, data, and situations in order to come to a conclusion or a plan. (17.6%)

Over half (52.9%) of respondents chose option 2 as Calhoun Community College's official definition of critical thinking as it was written in the survey or with suggested wording changes. Consequently, we have adopted this definition of critical thinking, and it will be used in all documents and student learning outcomes referencing "Why is My Pizza Burning?" and teaching critical thinking skills in the classroom environment.

Benefits of Critical Thinking

For community college students who would like to successfully matriculate to four-year institutions, participate in civic engagement, and seamlessly engage in the workforce, critical thinking skills are particularly important. Based on research by Huber and Kuncel (2016) and others (McMillan, 1987), students who enroll in college are more likely to increase their critical thinking skills as they are more likely to be exposed to critical thinking strategies within the classroom. Community college transfer

students seem to have better outcomes than students who enroll in four-year universities after completing high school (Jenkins & Fink, 2016). As a two-year college, transferability is an important goal for our students. As indicated by the Ruffalo Noel-Levitz Assessment of Student Satisfaction administered in the fall of 2019, 68% of our students plan to transfer to four-year institutions (Calhoun Community College, 2021a). There are numerous studies which demonstrate the need for critical thinking as an indicator of student success. Critical thinkers are more likely prepared for civic engagement as it helps them focus on "real-life problems, often involving contested values" (Association of American Colleges and Universities, 2002, p. 44). Other researchers suggest coursework should focus on "complex issues" for developing the capacities of "multiple perspectives on highly charged issues" and "open-minded civil discourse" (Colby, et. al, 2003, p. 265–266). Coursework such as this helps to create more critical thinkers. With 73% of our students already in the workforce (Calhoun Community College, 2021a), application of critical thinking skills is crucial as underdeveloped critical thinking skills in college hamper the ability for students to be successful in the transition to the workforce (Flores et al 2012). Additionally, applying critical thinking skills helps a workforce to decipher real-world situations (Lunney, 2019, p. 15).

Importance of Metacognition in Critical Thinking

It is important for students to learn to think about their own thinking as one of the bases of learning to think critically. The pioneer of metacognition, John Flavell, introduced the term in the seventies (Flavell, 1979). Many researchers have since added to the meaning of metacognition which can be defined as a cognitive process in which one thinks about thinking. According to Kuhn and Dean (2004), it is metacognition which enables a learner to retrieve a strategy and apply it to a problem in various contexts. Some metacognitive approaches allow students to learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them (Bassett, 2016). Valenzuela, Nieto, and Saiz (2011) expand the concept of metacognition and consider the role student motivation plays in implementation of CT skills to complete a task. Specifically, their interest in the expectancy/task value model argues that for students to be motivated to actively engage in the CT process (task of the assignment in this case), they must expect that they have the ability/knowledge/skills to complete the task and recognize personal value in doing so. During this reflection process, students are self-evaluating their beliefs about attainment (the likelihood they will succeed at the task), personal interest (does completing the task bring joy or satisfaction), utility (will their effort bring them closer to their goals), and cost (if they are engaged in this activity, what else will they miss out on). Therefore, Valenzuela, Nieto, and Saiz (2011) created the Critical Thinking Motivational Scale to help predict student engagement level with CT processes, but perhaps more importantly, to be used as an instructional

tool that offers the instructor insight into student values. This information can then be used to modify critical thinking instructional strategies in current use or to intervene with the student as appropriate. Once students understand the concept of metacognition and the role motivation plays in their own success, it is then that they are ready to be introduced to the concepts of critical thinking.

Explicit Instruction of Critical Thinking Concepts

Teaching critical thinking is important. Teaching students about logic and reason will allow them to develop a broader mindset to critically evaluate a position and draw their own conclusions. Our college will adopt an integrated and systematic approach to teaching critical thinking in a variety of courses. According to Leskes and Miller (2008), this integrated approach in teaching critical thinking skills is effective. Based on the literature produced by The Foundation for Critical Thinking, the language and process of critical thinking must be taught explicitly and incorporated directly into specific areas of study (Elder, L. & Paul, R., 2008).

In a review of existing research of teaching critical thinking skills, Alsaleh (2020) shows disagreement in two main areas: how critical thinking should be taught and what skills are necessary in developing proper critical thinking. Some argue that critical thinking skills need to be at taught as a stand-alone endeavor, while others contend it needs to be incorporated into the discipline-specific classrooms (Alsaleh, 2020). There are benefits and burdens associated with each approach. Teaching critical thinking in courses specifically designed for this end has the benefit of allowing students to grasp the theory and language of critical thinking, understanding its processes but this strategy may limit their ability to apply these concepts in specific contexts, and they may also be limited by the approaches, skills, and bias of the instructor of these courses (Alsaleh, 2020). The other option is to incorporate critical thinking processes into general courses, making it a central feature in the teaching of all disciplines, which can allow learners to think at a high level in many different contexts and circumstances, but this strategy may limit their ability to adequately explain the theoretical underpinnings of critical thought or to see critical thinking as a repeatable process regardless of the question or problem they face (Alsaleh, 2020).

Paul and Elder (2007) seek to promote classrooms that teach the language and processes of critical thinking within specific disciplines and can be seen as a potential solution to the problem outlined above. Critical thinking here is understood as "the process of analyzing and evaluating thinking with a view to improving it" (Paul & Elder, 2007, p. 6). To achieve this, Paul and Elder (2007) affirm that learners must know how to structure thinking, which is a result of learning the elements of critical thinking, and they must be rigorous in evaluating what they think about, which requires the standards of critical thinking. Critical thinking here then becomes a repeatable process, no matter what question or subject one faces. If we learn the language of critical thinking, we can develop the process required for its consistent employment in any area. In making 'thinking about thinking' an integral and explicit part of

classroom design, we can improve student outcomes and the learning process as a whole (Paul & Elder, 2014).

The first step in properly teaching critical thinking for Paul and Elder (2016) is the development of a system that makes the learner aware of how reasoning occurs. All reasoning must contain certain components. The recognition of these components allows thinkers to gain a proper understanding of the logic of whatever they are looking at (situations, problems, course readings, etc.). Paul and Elder (2016) contend all reasoning must contain eight essential elements: a purpose, a problem or question that requires an answer, assumptions, a point of view, data or evidence, concepts or theories, inferences or interpretations to support conclusions, and potential implications (p. 4-5).

Breaking down each element, purpose refers what we are trying to accomplish (Paul & Elder, 2016). Reasoning needs an end goal: the problem we are seeking to solve or the question we are trying to answer. Assumptions refer to what is being taken for granted. The point of view has us recognize where we are coming from in our investigation and serves as a reminder to try and gain as many available perspectives as possible. Data and evidence refer to what systems we are incorporating in our analysis and how this information is necessary to resolve the problem faced. Concepts and theories refer to what language we are using to resolve the question at hand and how are we conceptualizing the situation. Inferences and interpretations refer to how we are reasoning toward our conclusions. Implications and consequences refer to us thinking about potential outcomes for adopting or ignoring the proposed solution (Paul & Elder, 2016).

To put the elements to use in a specific context, Paul and Elder (2016) designed a template to analyze the logic of an article where each element is presented as a question that needs to be answered to gain a full understanding of the article, which is essential before a proper analysis begins. The elements are the first step in conducting a proper inquiry, but they must be combined with intellectual standards to yield consistent, high-level thinking. Elder and Paul (2008) define intellectual standards as a check or measure on our reasoning. They contend these standards are built into every academic discipline and program of study, hence the need to explicitly teach this language to learners to help them navigate what they are investigating. Paul and Elder (2017) stress that meaningful thought must involve both a critical and creative element, neither of which is possible without the constant review of our thinking process, checking our thinking, often, against intellectual standards ensures justified and well-reasoned outcomes.

Elder and Paul (2008) identify nine essential intellectual standards: clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness (p. 7-11). Clarity refers to how well we are communicating our points. Accuracy refers to soundness of the claim. Precision relates to specificity. Relevance refers to whether or not we are staying on topic. Depth refers to how well we are capturing the

intricacies involved in the discussion we are having. Breadth is a reference to the point(s) of view being considered. Logic is relating to the validity and the soundness of the position we face and to the structure and content of our argument. Significance serves as a check to ensure what we include is what matters most in the discussion at hand. Finally, fairmindedness requires that we consider all perspectives with a charitable, accurate, and unbiased approach (Elder & Paul, 2008). Consistent use of intellectual standards ensures that we are creating and considering well-reasoned arguments.

To teach critical thinking and the skills necessary for its consistent use, we will teach the language of critical thinking within general courses themselves. If students are introduced to the language of critical thinking in each area of study, consistent exposure and practice can create minds that grow accustomed to understanding how they review, analyze, and interpret information. The process of reasoning becomes a central focal point, just as important as the conclusion we reach. With this approach, we can combine the best of both worlds – a working understanding of the underpinnings of critical thought within specific disciplines.

Paul and Elder (2020) argue that the final step of this process is to incorporate a sense of universality in learners by focusing on eight essential intellectual traits: intellectual humility, intellectual courage, intellectual empathy, intellectual autonomy, intellectual integrity, intellectual perseverance, confidence in reason and fairmindedness (p. 23).

Breaking down each intellectual character trait, intellectual humility requires that we accept we do not know everything, no matter how seasoned our thinking becomes (Elder & Paul, 2020). Intellectual courage relates to our ability to consider all available viewpoints seriously and openly for relevant or insightful ideas. Intellectual empathy reminds us to consider how someone else may be experiencing or viewing a situation. Intellectual autonomy refers to our ability to take charge of our thinking and to trust ourselves to figure things out in accordance with relevant evidence. Intellectual integrity is a reminder to hold everyone, including oneself, to the same principles and standards of reasoning. Intellectual perseverance reminds us to be longsuffering during the struggle to figure out anything meaningful. Confidence in reason concerns our ability to trust our rational natures. Finally, fairmindedness relates to our ability to consider all viewpoints, giving each the same level of scrutiny (Elder & Paul, 2020).

With the process of critical thinking fully developed, we now turn to discuss how we can teach these skills within specific disciplines. Paul and Elder (2007) argue that every academic discipline uses the same repeatable relationships, which makes learning anything possible: "every subject generates purposes, raises questions, uses information and concepts, makes inferences and assumptions, generates implications, and embodies a point of view" (p. 12). They suggest reworking the basic structure of courses to use the language and the processes of critical thinking outlined above. This can be achieved at all levels of course development. Paul and Elder (2007) develop twenty-five competency standards that

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are essential to teaching critical thinking, each coming with "a skill that needs to be demonstrated, a justification for why this skill needs to be developed, a breakdown of abilities needed to fulfil the standard, and measurable outcomes that can be assessed" (p. 14-15).

These competencies can be adopted to fit any course. Before these standards can be implemented, teachers themselves must master these skills and develop comprehensive rubrics aimed to measure the level of thinking that is occurring; this can be attained through a series of professional development offerings, ensuring they do not allow their own bias to influence the assessment of student reasoning (Paul & Elder, 2007).

The competencies developed by Paul and Elder (2007) are broken into two categories: as general necessary skills needed to think in any discipline and as competencies aimed at particular areas of inquiry (p. 14). Together, these two categories deal with elements of critical thinking, standards of critical thinking, intellectual character traits, problems of egocentric and sociocentric thinking, close reading, substantive writing, asking essential questions, ethical reasoning, and detecting media bias (Paul & Elder, p. 14-45).

Each competency can be adapted for inclusion in any course simply by focusing it on the discipline we are teaching. For example, in a Philosophy class, we can take the first element of critical thought, which states, "students who can think critically recognize that all thinking has a purpose, objective, goal, or function" (Paul & Elder, 2007 p. 17) and focus the competency within a philosophical context; students who can think critically in Philosophy understand that all philosophical positions have a purpose, objective, goal, or function. This strategy can be employed with any competency listed above to help instructors begin to make critical thinking the focal point of learning their discipline.

The benefit of this approach is clear; we develop within students the ability to think critically about any problem or situation they face, using the appropriate language and processes of critical thinking. The drawbacks related to this approach concern the time needed to develop this fundamental shift in how we approach teaching. It requires significant buy-in from instructors and time needed to train faculty in the mastery of each skill noted above. Furthermore, each discipline goes about their business in their own unique ways, requiring instructors who plan to utilize this approach to identify which standards are most important to their field and prioritizing these above others. This requires collaboration and agreement amongst departments.

To help in this process, Elder and Paul (2007) recommend applying the elements to a specific field of study to determine its logic, then identifying what standards are most important in assessing this logic (p. 37-38). To successfully incorporate the process of critical thinking to your discipline, Paul and Elder (2014) stress the need to routinely model how students should be thinking through your discipline,

designing questions that focus on the elements and standards of critical thinking, and explicitly teaching the elements as they relate to your field of study (p. 38-42).

Strategies of Critical Thinking Concepts

As a college, our institution is dedicated to the idea that our students should be exposed to critical thinking strategies. Some research indicates that students exposed to explicit instruction of critical thinking strategies in a variety of instructional settings have an increased propensity towards critically thinking (Roohr & Burkander, 2020). To that end, the college has an independent Title III grant, "Pathways to Success," which connects work-based learning with critical thinking/problem-solving. Work-based learning combines with higher education principles, thereby strengthening the learner's analytical and critical thinking skills (Nottingham, 2016). However, we realize we need to make additional efforts to teach critical thinking strategies across the college.

We aim to offer our students opportunities to practice the critical thinking concepts learned in the QEP focus courses. Our instructors will be offered a variety of critical thinking professional development to complement their content and instructional styles. The students will apply these concepts through independent practice, explicit instruction, and collaboration with peers. According to the research of Nada Alsaleh (2020), 1) problem-based learning, 2) collaborative learning, 3) discussion, 4) writing activities, 5) reading, 6) use of questioning, 7) peer review, and 8) technology enhanced critical thinking are the most frequently and effectively used to teach critical thinking. Most of these techniques are active learning strategies. According to the literature, active learning strategies promote critical thinking and increase retention (Prober 2013; McMahon 2016). Active learning strategies can include a range of activities which requires the learner to take a less passive role in his/her learning. Active learning strategies asks the learner to "construct," understand, and comprehend the knowledge derived from their educational experience "while simultaneously improving knowledge gain and recall abilities" (Graffam, 2007). When compared to traditional lecture, active learning strategies help to encourage more critical thinking and problem solving in students (Anderson, et.al, 2005; Franco 2019).

Problem-based Learning

As cited in literature review article by Alsaleh (2020), problem solving is one of the eight most effective critical thinking strategies used by faculty in classroom instruction. It is believed that good problem-solving skills in almost any field—academic and workforce—could lead to success. Problem-based learning (PBL) can be defined as a technique which negates the passive learner, placing active learning as the preferred way for students to learn (Shamsan & Syed, 2009). The instructional emphasis is on both solving a problem and the active learner (Smith & Hung, 2017). When using PBL as an instructional method, the student works in a collaborative setting with peers and is presented with real-world problems (Klegeris & Hurren, 2011). Using this instructional method, the faculty member and/or

tutor serves as a facilitator. Rather than faculty presenting information in lecture format, the use of PBL encourages the learner to want to experience and decide how to formulate the solution to the problem presented. The problem can act as a trigger for student learning (Monrad & Molholt, 2017). Multiple researchers compared the PBL approach to the traditional lecture approach and found that the students developed an array of critical thinking skills ranging from increased troubleshooting to creative reasoning skills (Kek & Huijser 2011; Woods 2012).

Collaborative Learning

Collaborative learning can be presented and/or approached in various ways. One such way is the use of dialectical inquiry, which focuses on utilizing collaborative oppositionality. Collaborative oppositionality is a process where we confront opposing views while still fostering open-minded consideration of those views. The method calls for students to work in groups comparing all sides of an argument where the result is a reasoned judgment reached on collaborative rather than adversarial efforts (Bailin & Battersby, 2020). Another way collaborative learning can be presented is through cooperative learning strategies, which are active learning strategies that allow students to participate with one another in critical practices such as debate or group discussion with current, cultural, or controversial issues and role playing, where students learn and apply knowledge in specific contexts.

Discussions

Use of structured, quality discussion promotes critical thinking, as it promotes deeper thinking (Nold, 2017). An effective discussion should include associative, analogical, and reverse thinking. Associative thinking should combine unrelated ideas to create new concepts. Analogical thinking should help students to link from a known concept to new insights. Reverse thinking should help students to modify their perspective.

Writing Activities

There is a connection with writing and critical thinking; however, the writing assignments should be designed to promote higher-order thinking (Langer and Applebee, 1987). Though the research is limited (Quitadamo & Kurtz, 2007), it has been noted that the use of think-alouds coupled with writing assignments such as responding to questions, note taking, and writing an analytical essay promotes a learner's ability to synthesize and evaluate ideas.

Reading Strategies

Students are inundated with shorter works through social media and other digital tools. As such, when presented with larger more academic readings, "the traditional paper-based or lengthier texts may seem less important than they really are" (Hewett, 2015, p. 41). Additionally, the shorter readings seem to disrupt the reading process, thus "rendering students unable to engage in higher-level reading unless they are explicitly taught to use active reading strategies" (Hewett, 2015, p. 49). Based on research, use of

active reading strategies can not only increase reading comprehension but also increase critical thinking. Use of annotation, schema, inference, questioning, and relevance are active reading strategies that can be useful.

Use of Questioning

Use of Socratic questioning prepares students for the study of critical thinking (Lunney, 2019). When asked questions of almost any type — "factual, descriptive, clarifying, or value seeking"—students are able to explore what they do not know. The effort of seeking unknown answers to even the simplest of questions leads students down a path of discovery engaging the cognitive skill of information seeking. If students are asked more complex questions, they may engage both analytical and logical reasoning. Lunney (2019) noted, "These types of questions generate the cognitive skill of transformation of knowledge and development of the habits of mind of flexibility and creativity" (p. 86). Instructors should be encouraged to move beyond memorization and recitation questions and instead focus on asking open-ended, referential questions that require analyzation, inference, and evaluation.

Peer Review

Use of peer review can deepen a student's critical thinking; however, there are several considerations when using peer review. Students should be given well-defined tasks and clear parameters, but they should also be knowledgeable about the task. It is important that the student have the appropriate knowledge and skill-level prior to conducting the peer review (Kiefer, 2018).

Technology Enhanced Critical Thinking

The traditional classroom approach enables the learner to hear information once per class session; however, online learning offers the student an almost unlimited access to course content. The student can engage with the content multiple times offering more time to think. This opportunity "enhances the ability to learn, reflect, and problem solve through the use of critical thinking strategies" (Lunney, 2019). Faculty members then have the opportunity to coach, redirect, ask questions, and maintain student engagement in the learning process. Lunney (2019) contrasted online teaching and the traditional classroom by noting "[online] teaching methods enable a kind of 'stick to it' format that is not possible in in-class teaching based on a number of factors such as insufficient time, verbose versus quiet students, intimidation, and environmental issues" (p. 88).

CALHOUN COMMUNITY COLLEGE

"WHY IS MY PIZZA BURNING?"

SECTION B: BROAD-BASED SUPPORT

Section B: Broad-Based Support

- QEP Stakeholder Engagement
- Student Engagement and Support

The college has identified numerous college stakeholders to support the QEP. These groups have been instrumental in developing and initiating our plan. In every facet of our process, the stakeholders have been informed and engaged. As the QEP progresses, our plan is to continue to include our constituents. The broad-based support outlines how our QEP has engagement in all facets of the QEP, including assessment.

QEP Stakeholder Engagement

Our QEP and other initiatives have an impact on multiple facets and support from each of our institutional stakeholders including administrators, faculty, staff, students, and members of our advisory boards. The development of Calhoun's QEP topic was a broad-based project that began December 2019.

- **December 2019**

The Strategic Planning Council met to review current General Education SLO data and the results of the ETS Proficiency Profile. The broad-based support in this meeting can be seen from the collaborative efforts of the Institutional Research office staff, college administrators, and division chairs. Our SLO data comes as a result of efforts from all instructional divisions. The ETS Proficiency Profile is generally deployed to at least 10 % of our student population.

- **January 2020**

To reach a broader audience, a QEP topic selection survey was deployed by the Office of Institutional Planning, Research, and Grants to multiple stakeholders:

- Current Students
- Staff and Administration
- Full-Time and Adjunct Faculty
- Alumni
- Community Members (serving on Advisory Boards)
- Elected Officials

We received 594 votes from the survey. Of the 594 votes, 56.2% of votes were cast by currently enrolled students, 20.7% by Staff and Administration, 19.5% by Full-time and Adjunct Faculty, and 3.5% from other vested parties including Alumni and Elected Public Officials.

Table B-1: QEP Topic Selection by Respondents Role
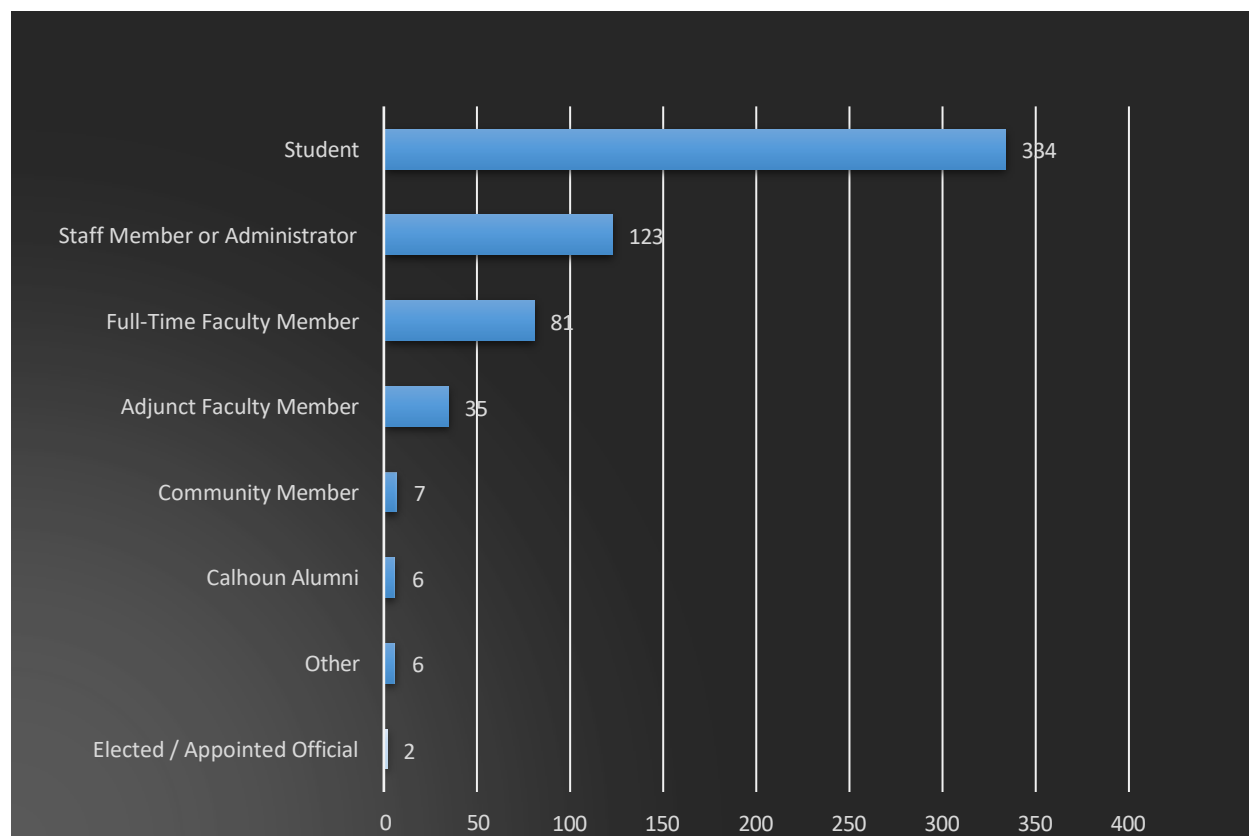
From Table B-1, it is evident students had the most votes from this survey. Individuals who responded as "Other" identified themselves as employers, high school seniors, dual enrollment students, or parents of duel enrollment students.

- **June 2020: Support from Advisory Boards – Meetings from 2020-2021**

During the month of June, the QEP Focus Committee met monthly to review additional institutional data, survey results, and advisory board minutes. As an institution, we have degree programs in Business & CIS, Health Sciences, Humanities & Social Sciences, General Studies, Mathematics & Natural Sciences, and Technologies. For each of our programs using Perkins funds, a federally funded grant to aid in technical education, an advisory board is a required component. The purpose of the advisory board is to provide industry feedback to our students, faculty, and staff as a means of solidifying the connection between education and industry. Our AAS degree programs use Perkins funds. We carefully choose

members of our advisory boards. In some instances, the accrediting bodies set the standards for the advisory board members, for example, industry partners who employee the graduates, elected officials, practical or clinical site administrators, current and former students, and public members. Not all accreditation bodies have these standards. In this case, the advisory board is made of local employers and clinical sites as well as graduates and current students. Other advisory members are senior administrators of local agencies and employers hiring our graduates. The advisory boards could meet up to two times per year.

For several years, the local advisory boards for our technical and health programs have requested Calhoun increase the amount of time dedicated to teaching critical thinking skills so graduates who become employees can be workforce ready and prepared to solve problems and/or reach reasoned conclusions while working.

After reviewing the advisory board minutes, many of our Advisory Board members request that our students increase their critical thinking skills. In some limited cases, they may praise the critical thinking skills the student already exemplifies. Since our QEP focuses on building the students' critical thinking skills, our industry partners support our initiative – this support further solidifies the broad-based support. Table B-2 includes some excerpts from Advisory Board minutes with focused comments related to critical thinking.

Table B-2: Advisory Boards Examples of Critical Thinking Impact

Advisory Board	Meeting Date	Critical Thinking Skills
Physical Therapist Assistant Program	Spring 2020 April 27, 2021	Students in PTA 290 should be able to complete case studies to include exercises for a diagnosis to match lecture content of PTA 232. The final lab has been modified to develop critical thinking skills that are required to successfully follow the POC and appropriately treat a patient. Discussion of students who seem to find success in on-campus learning but are unable to perform effectively and safely during clinical learning experiences.
Physical Therapist Assistant Program	Spring 2019 March 27, 2019	"We love having (student name redacted) on our team but had to invest a lot of mentoring in the first couple of months on how to interpret and implement the written plan of care, rather than trying to address everything she thought could benefit the patient and also to avoid overlap with the Occupational Therapy plan of care and to decrease trying to address chronic problems that were not part of the current plan." Dr. Heather MacKrell, PTA Program Director noted that Calhoun Community College

		Institutional Learning Outcomes include the ability of a graduate to "think critically". This valuable employer input was an example of the ongoing need and focus of faculty to incorporate into the curriculum teaching students to recognize, evaluate, and select appropriate actions in positions. Committee members discussed the difficulty of transition into practice.
HVAC Program	Fall 2020	HVAC students are required to complete continuing education units and train using the latest technology to enhance their critical thinking. . .
HVAC Program	Spring 2021	Student focus on newest technology and how to use
PRL	Fall 2020	One employer in attendance mentioned the students were "hired without fail; and the graduates can perform proficiently in all areas." Another employer stated he hired two graduates and "each were head and shoulders above any hires." The students were able to draft legal documents on the first day!
CIS-AS	Fall 2020 October 30, 2020	For students entering the program at UAH, Beth Allen mentioned the students should have hands-on programming in arrays, beefed-up problem-solving skills, and heavy math reinforcement. They would also like students to work on collaboration and engage in discussion questions. For students entering UNA, Daniel Ray stated he would like for students not to give up immediately, so to increase problem solving/troubleshooting skills.
Business Administration	Spring 2021	Recent change to the BUS 289 course: Student teams are formed to fulfill need(s) for business where they are able to apply what they have learned in real world applications. Suggestions for the AAS program: (1) students should know how to work with Pivot Tables. Data analytics are needed to be able to gather, clean it up, make sense of and present data. Help with basic Excel formatting skills, start from the beginning (2) students seem to struggle when given data to compile for projects. They are unsure of how to organize data given, set timelines, etc.
Visual Communications	Spring 2021	Some board members were pleased to see the incorporation of assignments that reinforce critical thinking skills and problem solving.

- **September 2020-October 2020**

In September 2020, an additional survey regarding critical thinking was deployed to multiple institutional stakeholders to include our college administrators, full and adjunct faculty, and staff. Responses were submitted from all academic areas, student services areas, adult education, non-credit division, and most all administrative areas of the college. There were a total of 165 responses to the

survey. Refer to Appendix B for results of question 4 of this survey. All results may be found in the QEP Director's files.

Student Engagement and Support

Our students have been involved in the planning of the QEP by participating in the January 2020 survey. Due to Covid-19 pandemic, we were limited to student access and engagement beyond this initial survey. However, a meeting with PTK members was held during the summer of 2021 and other meetings are scheduled for the fall with our student leaders in SGA and the Warhawks. The Warhawks will assist with engaging our student leaders in facilitating student engagement with our QEP. During the informational meetings, the following information was discussed with student focus groups: Why the QEP was chosen, how critical thinking will be taught in the classroom, the timeline for implementation, and the greater impact improving critical thinking will have on the community. Students were then allowed to ask questions about the QEP (Appendix C – Presentation Explaining the QEP). As we continue our QEP, the students will have the opportunity to participate in college-wide contests focusing on critical thinking skills.

Stakeholders at all levels will be a very important factor in the assessment and deployment of the QEP. Faculty will collect data and various staff members and administrators will analyze the data. Data will be used to make data informed decisions in the classroom about improving critical thinking skills of students.

UPDATES FROM NOVEMBER 2021 – FEBRUARY 2022: STUDENT SUPPORT

After the On-Site Reaffirmation Committee visited in October, 2021, the College had student input and participation in various activities which have been necessary to strengthen the QEP based on the recommendations of the On-Site Reaffirmation Committee. A group of students who have been enrolled in some of the English, psychology, and orientation course sections which have piloted the QEP met with the Dean for Planning, Research and Grants on February 23-24, 2022, as evidenced by meeting notes, and discussed various ways that the instructors have implemented strategies in the pilot courses to strengthen their critical thinking ability as well as how the Signature Assignment in the courses that they have been a part of has forced them to think critically more than usual. The revised Assessment Plan was also shared with students during these visits in the classrooms to gather their feedback. A list of the meeting dates, times, rosters and meeting notes are linked in Table 7.2-2 to provide evidence of additional student feedback and support for the QEP.

Table 7.2-2: QEP Student Information Sessions in QEP Focus Courses

Psychology 200 - General Psychology, Section 101	Course Roster	Feedback/Notes
Psychology 200 - General Psychology, Section 102	Course Roster	Feedback/Notes
Psychology 200 - General Psychology, Section 104	Course Roster	Feedback/Notes
English 101 - English Composition 1, Section 102	Course Roster	Feedback/Notes
Orientation 110 - Freshman Seminar, Section 102	Course Roster	Feedback/Notes
Orientation 110 - Freshman Seminar, Section A05	Course Roster	Feedback/Notes

The QEP Director also visited several Student Club meetings to share information about the QEP. Table 7.2-3 lists the organization, date, and number of students attending the meeting.

Table 7.2-3: QEP Information Session with Student Clubs and Organizations

Organization	Date	Number of Students
Gamers Club (E-Sports)	1-12-22	6
Student Government Association	1-19-22	5
Warhawk Student Ambassadors	1-19-22	13

UPDATES FROM NOVEMBER 2021 – FEBRUARY 2022: FULL-TIME FACULTY SUPPORT

After the On-Site Reaffirmation Committee visited the College in October, 2021, the College ramped up full-time faculty training designed to offer more information and ideas on teaching critical thinking in their classroom. Table 7.2-4 shows a list of small group meetings held during the Fall 2021 Semester that focused on Critical Thinking strategies. Additional small group meetings have been held during the Spring 2022 Semester.

Table 7.2-4: Small Group Critical Thinking Workshops - Fall 2021 Semester

Workshop Topic	Date	Number of Faculty Participants
Fall 21 Literary Circle: Critical Thinking Elements and Standards - 1st in Series	8/5/2021	6

Writing Exercises to Encourage Reading, Enhance Critical Thinking and energize Classroom or Online Discussion	9/28/2021	6
Fall 21 Literary Circle: Critical Thinking Elements and Standards - 2nd in Series	10/5/2021	12
Fall 21 Literary Circle: Critical Thinking Elements and Standards - 3rd in Series	11/4/2021	12
Using Discussion Methods to Teach Critical Thinking	10/20/2021	3
Using Collaborative Learning to Teach Critical Thinking	11/3/2021	9

The Spring 2022 Faculty Kick-Off featured an interactive presentation that focused on faculty providing student feedback on Critical Thinking assignments. A survey of faculty revealed that 77% of the faculty felt that the information provided was helpful and applicable to their classes.

Additionally, on February 25, 2022, the College held an institution-wide, comprehensive QEP meeting for faculty, staff, and administration. The major portion of this meeting was faculty-led, by the full-time faculty members who have been a part of the pilot QEP implementation courses. These faculty shared best practices with all other full-time faculty at the College, and breakout small-group sessions also took place where full-time faculty were given the opportunity to ask questions, share more best practices, and offer suggestions for improvement of the newly revised assessment plan as well as ideas for expanded implementation of the critical thinking strategies across other courses at the College. Links to full-time faculty presentations regarding critical thinking, and faculty feedback are provided as evidence of support of the QEP by full-time faculty and administrators in Table 7.2-5.

Table 7.2-5: Critical Thinking Presentations and Faculty Feedback - February 25, 2022 Event

Computer Information Systems QEP Presentation
English Composition QEP Presentation
Industrial Maintenance QEP Presentation
Orientation QEP Presentation
Psychology QEP Presentation
Faculty Feedback Survey from February 25 Event

In addition to having the more formalized QEP training/brainstorming meetings described above, smaller, more focused departmental full-time faculty meetings were led by the QEP Director and the respective Academic Dean for each instructional department at the College during February, 2022. These small group meetings allowed for a more detailed discussion of the QEP and afforded the full-time faculty members the opportunity to offer suggestions and gather additional ideas on how to implement more

critical thinking activities into their classrooms. Minutes of each of these meetings provide further evidence of the strong support for the QEP by full-time faculty throughout the entire College as shown in Table 7.2-6.

Table 7.2.6: QEP Discussion Meetings - February, 2022

Division	Date	
Student Services	2-4-22	Meeting Notes
Health Sciences	2-15-22	Meeting Notes
Technologies	2-16-22	Meeting Notes
Humanities/Social Sciences	2-22-22	Meeting Notes
Math/Natural Sciences	2-22-22	Meeting Notes
Business/Computer Information Services	2-23-22	Meeting Notes

UPDATES FROM NOVEMBER 2021 – FEBRUARY 2022: ADMINISTRATIAVE SUPPORT

The College's administration has played a major role in the development of its QEP and is continuing to perform their respective roles in the oversight of the implementation of the plan.

The administration played a significant role in the 2019 meeting of the College's Strategic Planning Council which, as described above, reviewed the institutional data and narrowed the prospective QEP topic list down to four possible topics on which to focus the QEP. A list of the members of the 2019 Strategic Planning Council (with administrators highlighted) provides evidence that the Council was made up of 27 Calhoun senior administrators, director level and above, which was approximately half of the entire Council. Afterwards, when the QEP Topic Selection Survey (Table 7.2-1 above) was administered in the Spring of 2020, approximately 20% of those respondents made up the "administration/staff" category, which was the second highest category of respondents next to the "student" category. This survey determined "critical thinking" was to be the QEP topic.

The other major activities involved in the development of the College's QEP occurred when a QEP Team was named to research "critical thinking" and develop and write the actual plan. The College's administration had a strong voice on the QEP Team as evidenced by the list of members who serve on the QEP Team (with administrators highlighted). This list documents that one of the College's Senior Administrators chairs the QEP Team, and one/third of the members on the team are senior administrators from various areas of the College.

Even though the College has had strong administrative leadership and support during the development phase of the QEP, the On-Site Reaffirmation Committee questioned the support of the administration moving forward with the implementation of the plan. Thus, the College administered a survey to all of the College's administrators during January, 2022. The Calhoun Community College QEP Administrator Survey was administered to determine: (1) if all of the College's administrators understand the objectives

of the QEP, (2) if all of the College's administrators support the QEP, and (3) if all the administrators who have a role in the implementation of the QEP actually understand their role. The results of the survey documented the support of the College's administration for the QEP and produced valuable information for the QEP Director and the College President to use to develop the agenda for a meeting with all of the College's administrators who play a role in the implementation of the QEP. A meeting was held on February 7, 2022 with these administrators to answer questions about their QEP implementation roles and to further confirm their support of the QEP and of their role in overseeing the implementation of the plan. The minutes from the February 7, 2022 meeting with the Administration document that the administrators understand their role in the implementation of the QEP and have offered their full support in overseeing the implementation of the plan.

In addition to the survey and the administrative meeting concerning the implementation of the QEP, as already described above, on February 25, 2022, the College held an institution-wide, comprehensive QEP meeting for faculty, staff, and administration. Several presentations occurred in that meeting to share best practices from the faculty who have been involved in the pilot phase of the QEP and to allow administrators to share with the entire College what their roles will be in overseeing the implementation of the QEP and how they are excited about the potential of the QEP in better equipping students to be able to critically think when they move on to higher education and/or into the workforce. Another major part of the day was spent implementing small breakout groups to hold additional discussion with faculty and administrators. These small breakout groups gave faculty and administrators more time to ask questions, share additional best practices, and offer suggestions for improvement of the newly revised assessment plan and timeline of the QEP.

CALHOUN COMMUNITY COLLEGE

"WHY IS MY PIZZA BURNING?"

SECTION C: IMPROVING STUDENT LEARNING

Section C: Improving Student Learning

QEP GOAL: **Students will be able to implement critical thinking techniques that are necessary to reach reasoned conclusions.**

The following outcomes will be utilized to measure the impact of the College's QEP:

- **OUTCOME 1:** Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines.

- **OUTCOME 2:** Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.

- **OUTCOME 3:** Students will be able to recognize the value of critical thinking skills.

- **OUTCOME 4:** Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.

QEP Focus Course Selection

As indicated in the previous sections, "Why is My Pizza Burning?" is a faculty-led, student-focused effort to improve Calhoun Community College student's ability to think critically. This will be accomplished by focusing on teaching critical thinking in the classroom using proven, literature-reviewed techniques in the selected QEP focus courses.

Each instructional division of the college will engage in learning and teaching critical thinking strategies to help fulfill our learning. By selecting key courses from across the college, we are able to impact up to 50% of our student population. In the first three years of the QEP, the college will use a staggered deployment strategy in our QEP focus courses as outlined below:

Table C-1: QEP Focus Course Schedule, Spring 21 Enrollment and Success Rates

COHORT	COURSE NAME	ENROLLMENT (SPRING 21)	BASELINE COURSE SUCCESS RATES (SPRING 21)*
1 2022-23	BIO 103	488	73%
	ENG 101	802	66%
	PSY 200	590	74%
	ORI 110	569	73%
2 2023-24	BIO 201	365	55%
	NUR 112	115	75%
	MTH 112	578	76%
	CIS 146	425	72%
3 2024-25	HIS 201	347	79%
	MTH 100	639	77%
	ADM 111	131	90%
	SPH 107	377	66%
	ECO 231	388	52%

Note: Course success rates are defined as students earning an A/B/C in the course. No new courses will be added in years 4 and 5. Data collection and analysis will continue.

Student Learning/Success Outcomes

After surveys and discussion with students and faculty about topic selection and the greatest impact on students, the QEP Focus Committee discussed and eventually voted on and approved the QEP's learning outcomes. Representatives from all academic areas of the college elected to focus on the knowledge, behaviors, values, and learning environment of our students.

Calhoun Community College's Quality Enhancement Plan (QEP) "Why is My Pizza Burning?" targets three core student success goals to improve students' ability to think critically. All targets for improvement should be achieved by year five of the QEP. For the QEP focus courses and faculty teaching the courses:

The following outcomes will be utilized to measure the impact of the College's QEP:

- **OUTCOME 1:** Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines.

- **OUTCOME 2:** Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.

- **OUTCOME 3:** Students will be able to recognize the value of critical thinking skills.

- **OUTCOME 4:** Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.

Table C-3: QEP Assessment Plan Timeline

OUTCOME	ASSESSMENT MEASUREMENT INSTRUMENT	ASSESSMENT COLLECTION FREQUENCY AND TIMING	ANNUAL PERFORMANCE TARGET	FIVE-YEAR PERFORMANCE TARGET
OUTCOME 1: Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines their academic discipline.	Signature Assignment in All QEP-Focused Courses	(a) BASELINE: Signature Assignment Grades from the Fall and Spring Semesters Preceding the Intervention (b) ONGOING: Annually – Based on Data from Every Fall and Spring Semester	2% improvement each year in each QEP-Focused Course*	Cohort 1 Courses: 10% Increase at the End of the Five-Year Project. Cohort 2 Courses: 8% Increase at the End of the Five-Year Project. Cohort 3 Courses: 6% Increase at the End of the Five-Year Project.
	Student Course Success Rates for QEP-Focused Courses	(a) BASELINE: Student Course Success Rates for Spring 2021 Semester (see TABLE 7.2-2 below) (b) ONGOING: Annually – Based on Data from the Spring Semester	2% improvement each year in each QEP-Focused Course*	Cohort 1 Courses: 10% Increase at the End of the Five-Year Project. Cohort 2 Courses: 8% Increase at the End of the Five-Year Project. Cohort 3 Courses: 6% Increase at the End of the Five-Year Project.
OUTCOME 2: Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.	ETS Proficiency Profile – Critical Thinking Exam	(a) BASELINE: 2019 ETS Proficiency Profile – Critical Thinking Exam Results - 14% Proficient + Marginal (b) ONGOING: ETS Proficiency Profile - Critical Thinking Exam Results in QEP-Focused Courses Annually During Spring Semester	2% improvement per year (Proficient + Marginal) from baseline	24% competency (Proficient + Marginal)

OUTCOME	ASSESSMENT MEASUREMENT INSTRUMENT	ASSESSMENT COLLECTION FREQUENCY AND TIMING	ANNUAL PERFORMANCE TARGET	FIVE-YEAR PERFORMANCE TARGET
OUTCOME 3: Students will be able to recognize the value of critical thinking skills.	Critical Thinking Student Behaviors/Values Survey	(a) BASELINE: Year 1 Ratings of "Strongly Agree" (b) ONGOING: Critical Thinking Student Behaviors/Values Survey Administered at the End of Fall and Spring Semesters in the QEP-Focused Courses	5% Increase in Ratings of "Strongly Agree" Per Year	25% Increase in Ratings of "Strongly Agree" Since Year 1
OUTCOME 4: Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.	End-of-Course Evaluation Survey for the Mandatory Critical Thinking Course for all Faculty Teaching QEP-Focused Courses	(a) BASELINE: Year 1 Ratings of "Agree" or "Strongly Agree" (b) ONGOING: At the End of the Critical Thinking Online Course for Faculty, Faculty will "Agree" or "Strongly Agree" that the Course was Effective.	3% Increase in Ratings of "Agree" or "Strongly Agree" Per Year	15% Increase in "Agree" or "Strongly Agree" Since Year 1
	Other Measures: Instructor Feedback from all Professional Development Sessions on Critical Thinking	(a) BASELINE: Spring 2022 Critical Thinking Workshop: 77% of Faculty "Agree" or "Strongly Agree" that that the Workshop Provided Effective Strategies to Increase Students' Critical Thinking Skills. (b) ONGOING: At the End of Each Professional Development Workshop, Faculty Members will "Agree" or "Strongly Agree" that the Workshop Provided Effective Strategies to Increase Students' Critical Thinking Skills.	3% Increase in Ratings of "Agree" or "Strongly Agree" Per Year	15% Increase in Ratings of "Agree" or "Strongly Agree" Since Year 1

OUTCOME 1: Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines.

Outcome 1 will be measured by two assessment measurement instruments:

1) **Signature Assignment in QEP-Focused Courses**
   The QEP Signature Assignment will be used as an assessment measure for Outcome 1. This assessment tool will measure skills and behaviors of students' learning. For successful achievement of Outcome 1. The Signature Assignment for each of the QEP-Focused Courses will be developed and/or revised to specifically include certain key components of critical thinking during the "pilot" phase of the QEP for each of the three cohorts of courses; this "pilot" phase will occur during the year prior to QEP implementation in each cohort of courses and the Signature Assignment will be "piloted" in a small number of sections during this "pilot" phase. The data from the Signature Assignment during the "pilot" phase will be analyzed and used as a baseline score for the Signature Assignment in both the formative and summative targets. The Annual Performance Target will be used as a formative assessment along the way to track the progress of improvement of Outcome 1. An Annual Performance Target of 2% per year has been established as a goal for seeking improvement; therefore, a Five-Year Performance Target, or summative assessment, for Outcome 1 will be an increase of 10% over the baseline Signature Assignment score for Cohort 1 courses, an increase of 8% over the baseline Signature Assignment score for Cohort 2 courses which will not be implemented until year 2 of the QEP implementation, and an increase of 6% over the baseline Signature Assignment score for Cohort 3 courses which will not be implemented until year 3 of the QEP implementation. These Signature Assignments will be the same assignment and graded by the same rubric for each QEP-Focused course section taught.

2) **Student Course Success Rates**
   The Student Course Success Rates will be used as a second assessment measure for Outcome 1. Since each of the QEP-Focused Courses will be redesigned with a specific focus on an emphasis of certain key components of critical thinking as well as at least one identical Signature Assignment that is specifically designed to measure students' critical thinking skills in all sections of each QEP-Focused course, these modifications should translate into an increase in student success rates for the entire course which is defined as the percentage of students who attain a grade of A, B, or C in the course. Thus, the Annual Performance Target will be used as a formative assessment along the way to track the progress of improvement of Outcome 1. The Spring 2021 Student Course Success Rates for each of the QEP-Focused Courses are outlined in Table 7.2-2 above, and these percentages will be used as a baseline of this assessment measure for Outcome 1. An Annual Performance Target of 2% per year has been established as a goal for seeking improvement; therefore, a Five-Year Performance Target, or summative assessment, for Outcome 1 will be an increase of 10% over the baseline Student Course Success Rate for Cohort 1 courses, an increase of 8% over the baseline Student Course Success Rate for Cohort 2 courses which will not be implemented until year 2 of the QEP timeline, and an increase of 6% over the baseline Student Course Success Rate for Cohort 3 courses which will not be implemented until year 3 of the QEP timeline.

OUTCOME 2: Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.

Outcome 2 will be measured by one assessment measurement instrument:

1) **ETS Profile Critical Thinking Exam**
   The ETS Profile Critical Thinking Exam will be used as an assessment measurement instrument for Outcome 2. In 2019, the College administered the ETS Profile Critical Thinking Exam to 1,000 students. Only 14% of the students who completed the exam were deemed competent critical thinkers by scoring at the Proficient or Marginal levels. Constraints of Covid-19 impacted the delivery of the exam in 2020 and 2021; therefore, the data from 2019 will be used as a baseline measure for Outcome 2. The Exam will be administered to a select group of students from a valid random cross-section of the QEP-Focused Courses annually during each spring semester. The College's administration has established a goal to seek at least 2% improvement per year over the 2019 percentage of 14% in the Proficient + Marginal levels of student scores. With the 2% per year improvement being the formative assessment of Outcome 2, the College has consequently set a 24% competency at the Proficient + Marginal levels on the ETS Profile Critical Thinking Exam as a summative measurement or a Five-Year Performance Target.

OUTCOME 3: Students will be able to recognize the value of critical thinking skills.

Outcome 3 will be measured by one assessment measurement instrument:

1) **Critical Thinking Student Behaviors/Values Survey**
   The Critical Thinking Student Behaviors/Values Survey will be the assessment measurement instrument used to assess Outcome 3. This survey was developed internally by Dr. Donna Estill, Dean of Humanities and Social Sciences, Dr. Tori Norris, Psychology Instructor, and Dr. John Jones, Biology Instructor, using the work of Valenzuela, Carracedo, and Saiz (2011). The researchers identified factors motivating individuals to think critically. The five factors potentially motivating individuals to value the enhancement of their own ability to think critically are (1) utility, (2) interest, (3) expectancy, (4), cost and (5) attainment. The ten-question Likert scale survey focuses on the value that students place on the utility, interest, expectancy, cost and attainment of critical thinking skills learned in the classroom while at Calhoun Community College. The survey will be administered to all students enrolled in the QEP-Focused Courses by the respective instructors at the end of the fall and spring semesters. The percentage of students who "strongly agree" with selected questions on the survey will be calculated annually, and the percentage of Year 1 students who "strongly agree" with selected questions will serve as the baseline for the measure. The College's administration has set a goal for seeking improvement over the baseline percentage of a 5% increase in "strongly agree" ratings per year; this will serve as a formative measurement. Thus, a 25% increase in "strongly agree" ratings will serve as the Five-Year Performance Target/summative measurement.

OUTCOME 4: Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.

Outcome 4 will be measured by two assessment measurement instruments:

1) **End-of-Course Evaluation Survey for the Mandatory Critical Thinking Course for all Faculty Teaching the QEP-Focused Courses**
The End-of-Course Evaluation Survey in the mandatory Online Critical Thinking Course for Faculty will be used as an assessment measure for Outcome 4. All faculty who teach a section of the QEP-Focused Courses will be required to complete an Online Critical Thinking Course in order to receive formalized training with implementing techniques in the classroom and in course assignments to seek to improve students' critical thinking skills. When the faculty members finish this course, they will complete an End-of-Course Survey. The percentage of faculty who "agree" or "strongly agree" that this course was effective will serve as the baseline and target measurements of Outcome 4. The percentage of faculty who "agree" or "strongly agree" that the course was effective in year 1 will serve as a baseline measurement. The College's administration is seeking improvement of 3% per year in the percentage of faculty who "agree" or "strongly agree" that this course is effective as a formative measure and a 15% increase over the baseline percentage as a Five-Year Performance Target or summative measure.

2) **Feedback Surveys for all Other Professional Development Sessions/Presentations on Critical Thinking**
Numerous professional development sessions, faculty/staff workshops, in-service meetings, etc. will be focused on critical thinking as the College's Quality Enhancement Plan is implemented. At the end of each meeting, a feedback survey instrument will be administered. Data from these feedback surveys will be analyzed to determine what percentage of faculty "agree" or "strongly agree" that the workshop/presentation provided effective strategies to increase students' critical thinking skills. The first of such workshops took place at the beginning of the 2022 Spring semester. For the Spring 2022 Critical Thinking Workshop, 77% of the faculty who attended either "agreed" or "strongly agreed" that the workshop provided effective strategies to increase students' critical thinking skills; this percentage will be used as a baseline measurement for Outcome 4. The College's administration is seeking improvement of 3% per year over the baseline percentage as a formative measure. Thus, a 15% increase in the percentage of the "agree" and "strongly agree" ratings will serve as a Five-Year Performance Target or summative measure.

Table C-3: SMOKE Critical Thinking Instructional Design Model
S   *State* your question or problem
• Formulate the question. • Identify the question. • Identify what is being asked. • Identify the problem. • Review the assignment's parameters. • What are the causes behind the question or problem? • What is being asked of you?
M   *Make* inquiries
• Gather facts and seek out information. • Research • What is needed to solve the problem? • Isolate the information needed to complete the assignment. • Identify what is contributing to the problem. • Clarify the boundaries of the assignment.
O   *Options* for action and resolution
• Apply the information or make a list • Outline a response to the assignment. • Outline a response using the gathered credible facts and information. • Evaluate your options (available strategies) to determine advantages and disadvantages. • Recognize limitations (i.e. - time, money, power)
K   *Know* your option and *Keep* a plan
• Justify your strategy choice and consider implications. • Draft a logical, informed response. • Make your case. • Decide the best path to complete the assignment. • Determine a plan of action • Create a rough draft • Evaluate pros versus cons of your chosen strategy.
E   *Evaluate* the result and *Explore* other points of view
• Produce an answer or final product for submission. • Reflect to ensure the responses address the original question. • Are you confident with the results? • Did you provide an adequate solution for the problem? • Did you fulfill the parameters of the assignment? • Is more information or direction needed?

Develop and State Rationale: Critical Thinking Signature Assignment

When developing the signature assignments, faculty provide a rationale for using the particular critical thinking signature assignment. The rationale for using the signature assignment will be included on the syllabi of each of the QEP focus courses. The rationale should answer how the assignment satisfies the five points of the instructional design model and the "pool of language" used to create the directions for the signature assignments in the QEP focus courses. (Appendix D: ENG 101 Sample Syllabus with Signature Assignment)

Strategies for Teaching Critical Thinking

To develop signature assignments, we asked that faculty utilize strategies for teaching critical thinking in their instructional practice. As stated earlier, our faculty will have numerous professional development opportunities for learning about critical thinking strategies and how to better teach critical thinking.

At the close of each semester, faculty are asked to submit the student performance of the signature assignment in Blackboard. Distance Learning and Institutional Research will compile the data to be forwarded to the academic deans and other stakeholders identifying courses with the greatest success on the signature assignment. This data will then be used to identify best practices and strategies used to teach critical thinking in the classroom in an effort to continually improve student learning.

Critical Thinking Student Behaviors/Values Survey

The Critical Thinking Student Behaviors/Values Survey will be used to measure student motivation to implement CT techniques necessary to reach reasoned conclusions. Specifically, do

students value the Utility of CT techniques (Q3, Q5, and Q8) and recognize the role possessing strong CT skills will have in their ability to make decisions and how it may impact their future both personally and professionally?

Dr. Donna Estill, Dean of Humanities and Social Sciences & Interim Chief Academic Officer, Dr. Tori Norris, Psychology Instructor, and Dr. John Jones, Biology Instructor adapted the Valenzuela, Nieto, & Saiz (2011) *Critical Thinking Motivation Scale (CTMS)* to create the Critical Thinking Student Behaviors/Values Survey. In addition to measuring student motivation to implement CT techniques, the other components of the survey will provide vital formative evaluation information as will be explained later in this document. Further, the Critical Thinking Student Behaviors/Values Survey was used during the pilot periods to ensure the ability to deploy the instrument via Blackboard LMS.

Faculty Development Report on Critical Thinking PD Series

Each year, our Faculty Development Division offers professional development to our faculty. For the years during this QEP, a minimum of 25% of faculty professional development offered at Calhoun will be dedicated to teaching and assessing critical thinking per year. All faculty members—in the QEP focus courses and those not teaching QEP focus courses— will have access to this professional development. Many of the college's professional development sessions will have a theme of Teacher's Toolbox: Strategies for Teaching Critical Thinking and will provide education on the eight strategies for teaching critical thinking: 1) problem-based learning, 2) collaborative learning, 3) discussion, 4) writing activities, 5) reading, 6) use of questioning, 7) peer review, and 8) technology enhanced critical thinking. Our faculty may also seek professional development hours in addition to those hours offered by Calhoun to satisfy college requirements.

Strategies of Enhancement

The primary goal of Calhoun Community College's QEP is to implement critical thinking techniques necessary for students to reach reasoned conclusions. As such, we will offer our students opportunities to practice the critical thinking concepts learned in the QEP high enrollment courses. Our instructors will be offered a variety of critical thinking professional development focused on Teacher's Toolbox: Strategies for Teaching Critical Thinking. This opportunity is designed to complement their content and instructional styles.

The students will apply these concepts through independent practice, explicit instruction, and collaboration with peers. Based on the September 2020 faculty survey (Appendix B), our faculty most frequently use the following activities leading to critical thinkers in the classroom: 1) problem-based learning, 2) collaborative learning, 3) discussion, 4) writing activities, 5) reading, 6) use of questioning, 7)

peer review, and 8) technology enhanced critical thinking. As noted in the document above, these eight strategies are among the most effective for teaching CT (Alsaleh, 2020).

When these Strategies for Teaching Critical Thinking are combined with other instructional resources and tools, faculty will have been offered appropriate professional development to teach critical thinking in the classroom. These strategies combined with the freedom and flexibility to utilize different tools for the appropriate situation are the most current literature-reviewed techniques needed to promote the concepts and skills of critical thinking.

During our pilot/preparation phase of the QEP, a professional development model and a professional development session have been offered on the Strategies for Teaching Critical Thinking. On March 12, 2021, our Faculty Development division provided a faculty-led professional development which focused on the eight critical thinking strategies discussed above. Each of our faculty could have attended up to three sessions; at least 85% of our full-time faculty participated in this activity. Based on our professional development plan for our QEP, faculty will have participated in robust professional development in critical thinking.

The Faculty Development Division has developed a professional development plan to aid faculty in learning about critical thinking and teaching critical thinking. The plan includes discussion time, question and answer time, and practice on each critical thinking strategy.

Criteria for Success

The overall goal of the QEP is for students to be able to implement critical thinking techniques that are necessary to reach seasoned conclusions. Ultimately, the QEP will be deemed successful by achieving the desired measures of success on all four QEP outcomes. The QEP Director will work with the college's administration to ensure the QEP is successful by utilizing the yearly data as a means to enhance quality improvement. Table C-4 identifies the performance targets for each of the learning outcomes.

Learning Outcome	Performance Targets
Outcome 1: Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines their academic discipline.	**Aspirational:** 2% increase per year in QEP Focused Courses **Baseline:** Signature Assignment grades from the Fall and Spring Semesters Preceding the Intervention. (TBD)
Outcome 2: Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.	**Aspirational:** 24% competency (Proficient + Marginal) in ETS Proficiency Profile **Baseline:** 2019 ETS Proficiency Profile Critical Thinking Exam Results – 14% (Proficient + Marginal)

Learning Outcome	Performance Targets
Outcome 3: Students will be able to recognize the value of critical thinking skills.	**Aspirational:** 25% increase in ratings of "Strongly Agree" **Baseline:** Critical Thinking Student Behaviors/Values survey Administered at the End of Fall and Spring Semesters in QEP Focused Courses (TBD)
Outcome 4: Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.	**Aspirational:** 15% increase in "Agree or "Strongly Agree" **Baseline:** At the End of the Critical Thinking Online Course for Faculty, faculty will "Agree" or "Strongly Agree" that the course was effective. (TBD)
	Aspirational: 15% increase in "Agree or "Strongly Agree" **Baseline:** Spring 2022 Critical Thinking Workshop: 77% of faculty agreed or strongly agreed that the workshop provided effective strategies to increase students' critical thinking skills.

Faculty Professional Development Plan

On January 6, 2021, Calhoun began the professional development journey into the QEP focus topic of improving students' ability to critically thinking. All faculty were given copies of *The Miniature Guide to Critical Thinking*, Bloom's Taxonomy Slider, and other swag related to critical thinking.

The event kicked off with an overview of the topic selection process and relevant data related to the ability of students to think critically at Calhoun Community College. Next, faculty were presented an overview of the elements and standards of critical thinking. Mr. Tyler Andrews, Calhoun philosophy instructor, facilitated this session. Faculty were then assigned to random, cross-disciplinary groups of 15 or fewer to work on an exercise that allowed them to apply the elements and standards of critical thinking. These sessions were facilitated by a faculty member, and data were collected and submitted to the Faculty Development office. This data consisted of strategies, assignments, and assessments faculty reported as being used to teach students to think critically. Many of these techniques were also identified in the literature review as proven methods to teach critical thinking.

The next professional development event, held on March 12, 2021, focused on the eight identified strategies of the "Teacher's Toolbox." Each strategy's session was repeated three times over the course of the professional development session to allow faculty to attend three sessions of their choosing. Each session was a facilitated discussion with a description of the strategy and how it is used in the classroom to teach critical thinking. Faculty in attendance were then invited to share how it could be applied or

modified to their specific discipline. Faculty were encouraged to share other ideas related to critical thinking strategies, assignments, or assessments.

As Calhoun moves forward with implementation of the QEP, faculty will have numerous opportunities to engage in professional development. The table below represents Calhoun's QEP Professional Development plan by year.

Table C-5: QEP Professional Development Plan

Year 0 2021-2022	Year 1 2022-2023	Year 2 2023-2024
• **Workshops** • What does Critical Thinking Look Like? • Proper Assessment of Critical Thinking. • Providing Feedback to Students About Critical Thinking. • SMOKE Instructional Design • 8 Critical Thinking Strategies - Faculty led • **Literary Circle** • Critical Thinking Crisis by Pearlman • **New Faculty Onboarding** • Critical Thinking Teaching Module • **Adjunct Faculty Training** • Critical Thinking Teaching Module • **Critical Thinking Webinar and Discussion**	• **Workshops** • Critical Thinking Question Writing • Refresh My Syllabus • Signature Assignment Development • SMOKE Instructional Design • 8 Critical Thinking Strategies - Faculty led • **Blackboard** • Critical Thinking Toolbox • **Literary Circle** • Journal Articles • **New Faculty Onboarding** • Critical Thinking Teaching Module • **Adjunct Faculty Training** • Critical Thinking Teaching Module • **Critical Thinking Webinar and Discussion**	• **Workshops** • Critical Thinking Keynote Address to Faculty • Refresh My Syllabus • Signature Assignment Development • SMOKE Instructional Design • 8 Critical Thinking Strategies - Faculty led • **Blackboard** • Critical Thinking Toolbox • **Literary Circle** • Journal Articles • **New Faculty Onboarding** • Critical Thinking Teaching Module • **Adjunct Faculty Training** • Critical Thinking Teaching Module • **Critical Thinking Webinar and Discussion**

Year 3 2024-2025	Year 4 2025-2026	Year 5 2026-2027
• **Workshops** • Repeat Professional Development from Year 0/1 for newer faculty • Refresh My Syllabus • Signature Assignment Development • SMOKE Instructional Design • 8 Critical Thinking Strategies - Faculty led • **Literary Circle** • Critical Thinking Text TBD • **New Faculty Onboarding** • Critical Thinking Teaching Module • **Adjunct Faculty Training** • Critical Thinking Teaching Module • **Critical Thinking Webinar and Discussion**	• **Workshops** • Refresh My Syllabus • Signature Assignment Development • SMOKE Instructional Design • 8 Critical Thinking Strategies - Faculty led • **Blackboard** • Critical Thinking Toolbox • **Literary Circle** • Journal Articles • **New Faculty Onboarding** • Critical Thinking Teaching Module • **Adjunct Faculty Training** • Critical Thinking Teaching Module • **Critical Thinking Webinar and Discussion**	• **Workshops** • The Results are in! Faculty Presentations on Critical Thinking Results • **Reflection** • Lessons learned and steps moving forward to maintain gains. • **Continued use of:** • SMOKE • Critical Thinking Teaching Module for New and Adjunct Faculty • Literary Circles • Blackboard Critical Thinking Toolbox • Faculty Led Critical Thinking Workshops

As previously discussed, **Outcome 4** will focus on the professional development series for the college and focus its impact on the learning environment for the classroom as identified strategies are applied to promote student knowledge and application of critical thinking. A minimum of 25% of all of the college's professional development for faculty will be in the area of teaching and assessing critical thinking. A specific focus will be made to promote the eight literature reviewed techniques of the "Teacher's Toolbox" to faculty, including opportunity to discuss best practices with college peers, implementation into any classroom, and an opportunity to practice the skill as both the teacher and student. Other professional development focuses will be on practicing the critical thinking instructional design model, strengthening the QEP signature assignment portion module of the classroom syllabus, and literary circles between faculty to read books or scholarly articles related to teaching critical thinking and its impact on students and the workforce.

For faculty participating in external professional development, a minimum of 25% of obtained professional development should be in the area of critical thinking as documented on conference agendas or other appropriate documentation. This will be evaluated annually by the Director of Faculty Development. Academic Deans will evaluate the appropriateness of travel to conferences and ensure the 25% standard can be met before approving this type of travel. The Director of Faculty Development will complete annual audits and host virtual workshops for faculty in the summer who are lacking the appropriate amount of professional hours dedicated to teaching and assessing critical thinking.

Overview of Baseline Data

The learning outcomes for the QEP were guided by the baseline data that the QEP focus group obtained, indicating in every area that critical thinking was a problem. On the 2021 ETS Proficiency Profile – Critical Thinking Exam, 4% of Calhoun students scored at the Proficient level, with 10% scoring Marginal. Of the three Student Learning Outcomes--Communicate Effectively, Think Critically, and Act Professionally—Think Critically has consistently been the lowest score (success defined as scoring at least a 70% on the assessment instrument for the course) (see Table below). Additionally, Advisory Boards from across the College, including Physical Therapy Assistant, Heating/Ventilation/Air Conditioning, Paralegal, Computer Information Systems, Business Administration, and Visual Communications, recommended higher level critical thinking for students.

Table C-6: Student Learning Outcome scores in a selection of subjects, 2019/20

Course	Communicate Effectively % Success	Act Professionally % Success	Think Critically % Success
Accounting	47	53	47
Business	86	85	78
CIS	87	80	78
ART	76	81	75
Music Tech	69	77	62
Math	93	93	84

A survey of Calhoun's faculty and staff indicated a lack of consistency in defining, assessing, and teaching critical thinking. In fact, only 36% identified specific strategies for teaching critical thinking. The baseline data made it clear that the Learning Outcomes needed to include formative goals to improve the student learning environment and summative goals related to student achievement of proficiency in critical thinking.

Formative assessments include the Signature Assignment, QEP Focused Courses Success Rates, the ETS Proficiency Profile, and the Critical Thinking Student Behaviors/Values Survey. The goal of the Signature Assignment is for students to increase their scores by 2% each year. The formative assessments allow the College to use the data to improve processes and strategies before summative assessment.

Summative assessments include the ETS Proficiency Profile – Critical Thinking Exam have been established based on the year each cohort begins QEP implementation and can be seen in Table 7.2.1. On the baseline data of the ETS Proficiency Profile – Critical Thinking Exam, 4% of Calhoun students scored

at the Proficient level, with 10% scoring Marginal. The aspirational outcome of 24% is a lofty increase,

but one that is achievable through the activities of the QEP.

CALHOUN COMMUNITY COLLEGE

"WHY IS MY PIZZA BURNING?"

SECTION D: RESOURCES TO IMPLEMENT THE QEP

Section D: Resources to Implement the QEP

- Institutional Organization
- Support Structure
- Significant Number of Students
- Training
- Webpage & Marketing
- Continuous Quality Improvement
- Institutional Capability and Commitment
- Budget Narrative

As a college, we have both the human and financial resources to implement our QEP. We have identified our resources for each stage of the process to include the implementation and completion of the plan. Our institutional stakeholders are involved in the planning and evaluation of the QEP with the understanding that we apply flexibility if our institutional capability changes.

Institutional Organization

Implementation of Calhoun Community College's QEP is supported by an organizational structure that provides comprehensive collaboration and communication at multiple levels. This framework enables ongoing formative and summative assessment of both student outcomes and institutional outcomes. One full-time QEP Director will be chosen from existing full-time faculty to administer the QEP through release time for the five-year project. The QEP Director will be named by or before January 2022.

Ultimate supervision of the QEP falls under the executive administration of the College. The president has oversight of budgetary, physical, and human resource needs required to implement and execute the QEP. The Vice President of Academic Affairs will provide administrative support in the form of campus resources and instructional resources. The Vice President of Student Services will provide student services support. In addition, the QEP Director will work with the college's Chief Financial Officer and Dean of Institutional Research and Planning on budgetary needs, assessment, evaluation and compliance with all SACSCOC requirements of the QEP. The figure below illustrates the overall reporting lines and communication flow for the QEP.

Table D-1: QEP Organization and Communication Flow
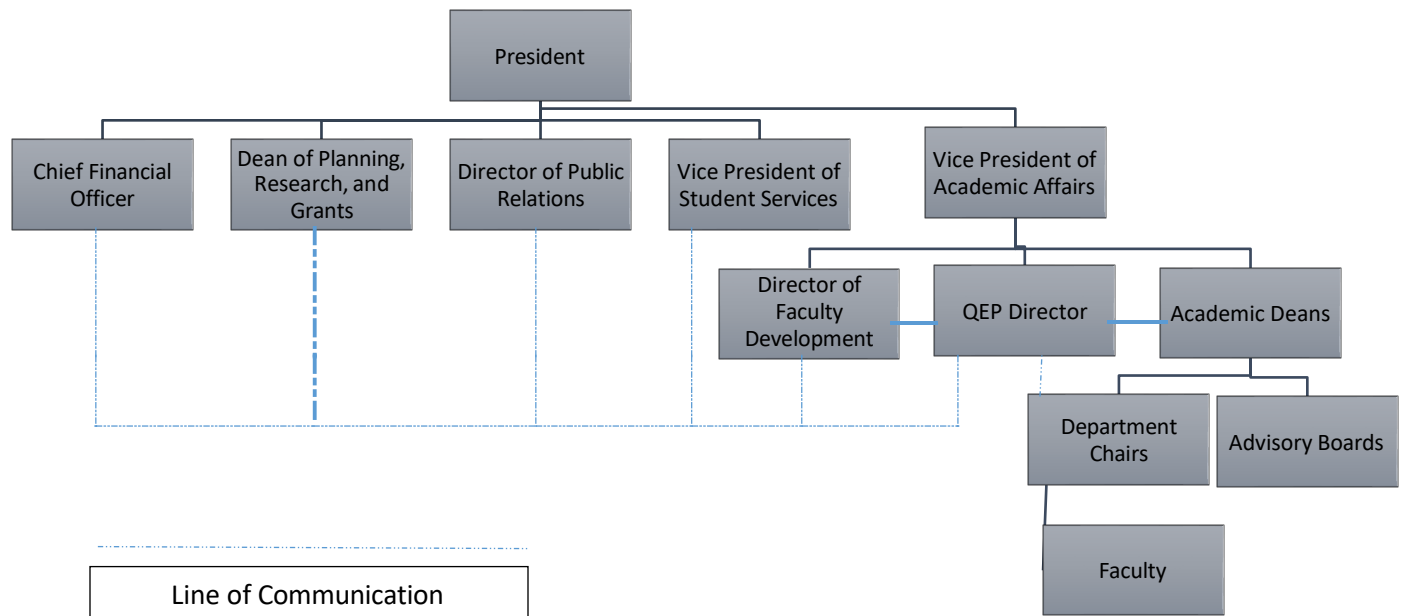
Support Structure

QEP Director

The QEP Director will be responsible for coordinating with the faculty in the QEP high enrollment courses. She/he will be housed in a faculty office space in either Huntsville or Decatur with access to a computer laboratory, classrooms for faculty training, and conference rooms on all college sites. The Director will be responsible for working with each year's scheduled sections of the QEP focus courses to ensure the instructional design model and program framework are implemented in the classroom and recorded in each course syllabus. The Director will also be responsible for collecting data required for the QEP. This includes the needed syllabus information of the signature assignment, the section evaluation form, and the critical thinking values survey. A complete job description for the QEP Director is as follows:

QEP Director (QEPD) Job Description

Position: *Quality Enhancement Plan Director (QEPD): Why is My Pizza Burning?*

The position will be a D schedule salaried position with a three-course release time every semester during the lifecycle of the QEP for outlined QEP responsibilities. The QEPD will report to the Vice President of Academic Affairs.

Duties: Serve as the primary operational Director of the QEP: "Why is My Pizza Burning?" and be responsible for the day-to-day effectiveness of the QEP as well as the assessment of the impact the QEP has on students, the College, and the community.

Qualifications:

- Effective oral and written communication skills and competence for conducting presentation
- Ability to meet deadlines for reports and assignments
- Knowledge, skills, and ability to initiate and follow through on concepts related to improving student learning as related to critical thinking
- A commitment to the College's mission
- Ability to work with others and lead committees
- Capable of service as a leader to a diverse population of students, faculty, and staff
- Long range planning and budgeting experience
- Minimum of a Master's degree from a regionally accredited university

Responsibilities:

- Collaborate with department chairs and academic deans to train and supervise faculty on QEP focus courses
- Work closely with the Vice President of Academic Affairs and QEP focus course faculty to provide leadership in all aspects of planning, developing, implementing, and monitoring the QEP
- Develop the short- and long-range goals, objectives, and budgets related to the QEP
- Manage the QEP budget
- Publicize the QEP to the campus community through newsletters, printed material, QEP website, social media, in-service, and professional development by working alongside the College's Public Relations Department and Office of Faculty Development
- Provide follow-up, as requested by SACSCOC on-site review team, and prepare all follow-up reports and impact reports
- Coordinate QEP Professional development of faculty and staff with the Director of Faculty Development
- Work in collaboration with the College's Information Technology Department, Office of Institutional Research, and Distance Learning Department to deploy survey and evaluation instruments to capture appropriate assessment data
- Disseminate and evaluate assessment data and results to the appropriate personnel and supervisors

QEP Administrative Assistant (QEP AA)

The QEP Administrative Assistant will be assigned to the QEP Director to assist with the facilitation of all QEP related duties. The QEP Administrative Assistant is responsible for maintaining all QEP related meeting minutes, coordination of data collection associated with Signature Assignment related syllabus data and program alignment data from Blackboard, values survey data, and section evaluation form responses. The QEP Administrative Assistant will be established from a current full-time employee on the E scale of the ACCS current pay scale. The QEP Administrative Assistant will receive a 10% pay stipend over their assigned rank on the pay scale for the duration of the QEP. A complete job description for the QEO Administrative Assistant is as follows:

QEP Administrative Assistant (QEP AA) Job Description

Position: *Quality Enhancement Plan Administrative Assistant (QEP AA): Why is My Pizza Burning?*
The position will be an E schedule hourly position with a 10% salary stipend for the lifecycle of the QEP for outlined QEP responsibilities. The QEP AA will report to the QEP Director (QEPD).

Duties: Serve as the administrative assistant to the QEP Director for "Why is My Pizza Burning?" .

Qualifications:

- Ability to meet deadlines for reports and assignments
- A commitment to the College's mission
- Ability to work with others
- Organized with experience scheduling and preparing meeting minutes
- Ability to utilize Blackboard and other online tools to administer surveys and gather data
- Microsoft Office experience
- Currently employed at the College on the E scale

Responsibilities:

- Document all QEP meeting minutes
- Deploy and collect data from various QEP assessments in accordance with the QEP Assessment Responsibility Matrix
- Assist the QEP Director with the attainment of short and long range goals and objectives
- Maintain and sort databases related to relevant QEP data
- Work with other College departments to promote the success of the QEP

QEP Focus Courses

To ensure the maximum impact on the student learning we chose specific courses. Approximately 50% of our enrolled students will participate in "Why is My Pizza Burning?" QEP. All

faculty will receive professional development in teaching critical thinking. The implementation plan by course is outlined below:

Table D-2: Focus Course Deployment Schedule

COHORT	COURSE NAME
1 2022-23	BIO 103
	ENG 101
	PSY 200
	ORI 110
2 2023-24	BIO 201
	NUR 112
	MTH 112
	CIS 146
3 2024-25	HIS 201
	MTH 100
	ADM 111
	SPH 107
	ECO 231

*No new courses will be added in years 4 and 5; however, data collection and analysis will continue.

QEP Faculty

Faculty are crucial to the success of "Why is My Pizza Burning?" All faculty including those involved in the QEP focus courses will receive professional development related to teaching critical thinking and the use of the techniques from the "Teacher's Toolbox" to implement in the classroom. Faculty Responsibilities:

- Development of the Signature Assignment
    - Identification of the signature assignment
    - The rationale of use of the signature assignment (SMOKE Instructional Design model)
    - The metric used for measure of critical thinking proficiency

Significant Number of Students

Once we reach full implementation of the QEP focus courses, up to 50% of our students will be impacted by the QEP. For example, in the spring semester of 2019, 1,633 students were enrolled in ENG 101 alone. ENG 101 is included in the degree plan for all AS and AAS degree programs. Since there are 13 QEP Focus courses and the vast majority are high enrollment courses like ENG 101, it is highly likely more than 50% of Calhoun students will be directly impacted by this QEP.

Students will take the ETS Proficiency Profile only once per year during the college's assessment week in April to measure the competency level knowledge of critical thinking concepts and strategies. This will be used to measure Learning Outcome #1. The ETS Proficiency Profile will be administered to 1,000 students in QEP Focus Courses according to the ETS Proficiency Profile Random Sampling guidelines. According to the ETS Proficiency Profile guidelines for a college the size of Calhoun Community College with an average of 8,500 students, 385 students should be tested (Table D-3). Testing 1,000 student far exceeds this minimum number. See reference calculation below. The ETS Proficiency Profile will be administered once per academic year beginning in spring 2023 to reduce cost and eliminate duplication of efforts.

Table D-3: ETS Proficiency Profile Random Sampling Calculation

$$n = \frac{\frac{[z^2 p(1 - p)]}{E^2}}{1 + \frac{z^2 p(1 - p)}{E^2 N}}$$

$$= \frac{\frac{1.96^2 * 0.5 * (1 - 0.5)}{0.025^2}}{1 + \frac{1.96^2 * 0.5 * (1 - 0.5)}{0.025^2 * 8,500}}$$

$$= \underline{\mathbf{385\ students}}$$

Where
z = 1.96 for a two-tailed confidence level of 95% (α = 0.05)
p = proportion (expressed as a decimal) = 0.5
N = population size = 8,500
E = margin of error = 0.025 (= α/2)

Training

A five-year comprehensive professional development program will be implemented utilizing multiple media including online programs, email information sharing, and professional development for all faculty including full and part-time faculty. Refer to Section C Professional Development Plan and 5-year outline (Table C-5). This training is essential to the achievement of all three learning outcomes and ultimately the achievement of the QEP Goal.

Webpage & Marketing

The QEP Focus Committee has a sub-committee dedicated to public relations and marketing. This sub-committee works alongside the college's Public Relations Department. This gives the QEP

committee full access to the PR Director, webmaster, and graphics designer. The QEP logo and banner were developed by the college's graphics designer (see appendix). The story behind "Why is My Pizza Burning?" will be told to faculty, staff, students, and the community through the marketing campaign managed by the college's PR department and QEP Focus Committee. The marketing campaign will focus on using the college's digital signage system, banners, flyers, and other printed and digital communication avenues to drive all vested members to the QEP Website. This marketing strategy was developed by the PR department and QEP Focus Committee. The marketing plan will use the various messaging capabilities of the college to send all participants to the QEP website (www.calhoun.edu/qep) using techniques such as the use of hyperlinks and QR codes.
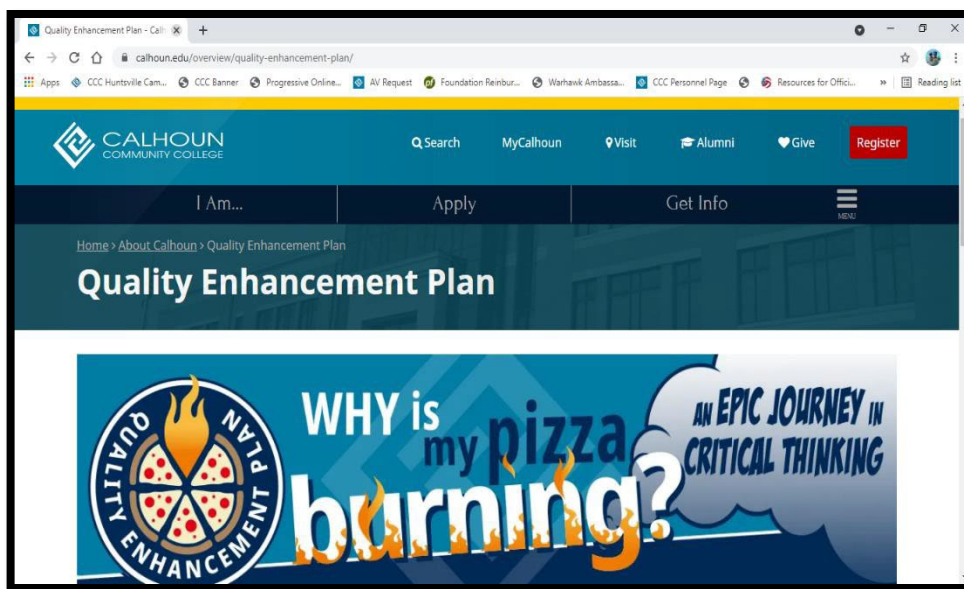
The website (screenshot left) will serve as the hub of QEP communication to all vested parties. Important QEP records such as QEP Focus Committee agendas, meeting minutes, and survey data will be hosted on the webpage. The webpage will have a "Burning Questions" section where information about the college, its programs, and other sources of information can be hyperlinked. The webpage will host a "Test Your Critical Thinking Ability" quiz section so individuals can test themselves. Each time a participant accesses the quiz, she/he will be given five random critical thinking questions. Individuals who participate in the quiz will be entered into a monthly drawing for pizza gift certificates. The critical thinking quiz will also allow questions written by faculty to be hosted and tested by random students. To align with the college's professional development plan, faculty will be improving their ability to write critical thinking questions. These test questions will be implemented in the random question generator, and data will be collected on individual questions. Faculty will be entered into routine drawings for prizes such as grants to be used to enhance critical thinking activities in the classroom, travel to attend the annual Foundation for Critical Thinking conference, or other rewards a faculty member can use to improve their teaching of critical thinking. The

website will serve as a central location for everything related to Calhoun Community College and the QEP.

Continuous Quality Improvement

Each strategy implemented will adhere to the following cycle with the faculty yearly cohorts providing ongoing reports to the QEP Director who will analyze and disseminate information to the college community. These faculty cohorts will begin in Year 1 and run through all 5 years of the QEP. The QEP Director will form a QEP Faculty Advisory board to meet at least twice per year to discuss the progress of the QEP and discuss the Section Evaluation Forms results. This process will help identify areas where critical thinking is being more successfully taught than other areas, allowing for best practices to be identified and then reproduced in areas which may be struggling. The following diagram will be the process for **Administrative Process for Assessing the QEP**:

Table D-4: Administrative Process for Continuous Quality Improvement of the QEP

Identify Sections for Academic Year

Identify Specific Strategies being Used or Assessed

Identify Successes and Challenges

Analyze Findings, Utilize Data for Decison Making

Report Finding and Advise Other Cohorts
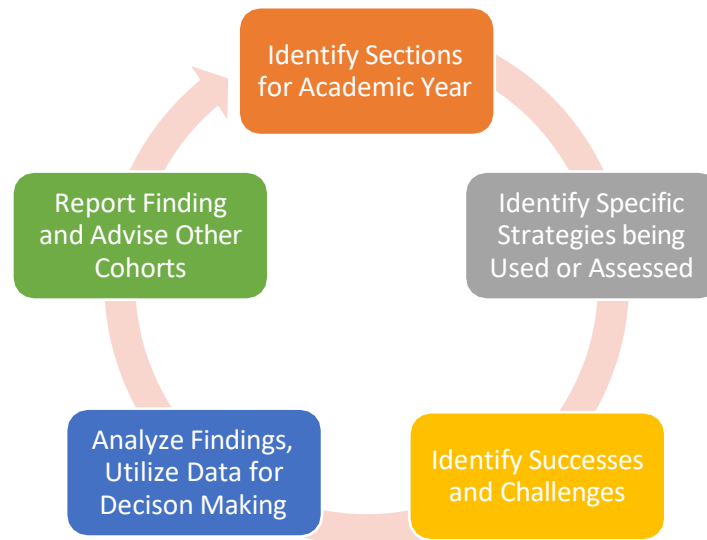
Institutional Capability and Commitment

The role of the QEP Director (QEPD) will be filled by a faculty member with experience in the area of assessment of institutional outcomes and in the QEP focus area of teaching critical thinking in the classroom. The QEPD will receive a three-course release for the duration of the project and will be assisted by an administrative assistant for at least 10 hours per week. Release times will be evaluated after each year to see if additional time is needed. The decision will be evaluated by the President and Vice President of Academic Affairs annually during the annual employee evaluation period. The QEPD will also report to the Dean and Direct Report to the Vice President of Academic Affairs monthly meetings. The Director will be given access to a campus office, computer labs, classrooms, and conference rooms on both campuses for QEP related activities. The QEPD will identify professional

development activities alongside the college's PD Director, identify conferences for affected faculty and seek out qualified consultants for in-house training.

The QEPD will collaborate with Academic Deans and Department chairs to identify faculty cohorts for the scheduled academic year. The scheduled timeline for the QEP focus courses will foster the opportunity for one cohort to be mentored or shadowed by the next cohort. A complete job description of the QEPD can be found in a previous section of this document and a five-year projected budget can be found in the following section.

Table D-5: Five-Year QEP Budget

	Planning Year	Year 1	Year 2	Year 3	Year 4	Year 5	Funds
Calhoun Community College							
QEP 5-Year Budget							
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Location
1. Professional Development							
Conference Travel	$16,000	$16,000	$16,000	$16,000	$16,000	$16,000	QEP
Guest Speakers	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	Academic Personnel Development
Critical Thinking Literary Circles	$500	$500	$500	$500	$500	$500	Academic Personnel Development
Refreshments	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	Academic Personnel Development/QEP
Professional Development Facilitation/Research/Stipends	$12,500	$12,500	$12,500	$12,500	$12,500	$12,500	Academic Personnel Development/QEP
Foundation of Critical Thinking Membership	$9,200	$9,200	$9,200	$9,200	$9,200	$9,200	QEP
2. Marketing							
Challenge Coins	$2,500	$1,000	$1,000	$1,000	$1,000	$1,000	HSV Admin/HSV Foundation
Promotional Materials	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	QEP
Printed Material/Video Production	$3,500	$3,500	$3,500	$3,500	$3,500	$3,500	QEP
Social Media Advertising	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	QEP
Faculty Incentives	$500	$500	$500	$500	$500	$500	Huntsville Foundation
Student Mind Lab (Library)	$15,000	$500	$500	$500	$500	$500	QEP
3. Assessment							
ETS	$0	$15,000	$15,000	$15,000	$15,000	$15,000	IR
4. Personnel							
Clerical Support	$4,200	$4,200	$4,500	$4,500	$4,500	$4,500	HSV CAMPUS ADMIN
QEP Director	$28,500	$57,600	$57,600	$57,600	$57,600	$57,600	Language/Literature
Consultant	$3,600	$0	$0	$0	$3,600	$3,600	IR
5. Other							
Miscellaneous	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	QEP
Total	$112,500	$137,000	$137,300	$137,300	$140,900	$140,900	
GRAND TOTAL (all years)	$805,900						
AVERAGE Per YEAR	$134,317						

Budget Narrative

The QEP Implementation Budget is broken down into five areas. The preceding chart indicates the breakdown of these five areas and indicates the broad-based support across the college by the in-kind funds being earmarked in other areas of the college outside of the direct QEP budget line. The first of these areas is the professional development. This QEP budget will be overseen by the college's Dean for Planning, Research and Grants in collaboration with the Faculty Development Office (Professional

Development Department) and QEP Director. All travel and webinar expenses for the QEP Director over the course of the project will come from this line as well as funds for literary circles, professional development honoraria, and food expenses during professional development. Funds will be made available for Calhoun Community College faculty to receive compensation through an instructional contract to facilitate and/or develop professional development activities. Many of these professional development activities will be identified by the QEP Director and Faculty Development Director as best practices as section cohorts advance from year-to-year using the college's previously identified administrative process for continuous quality improvement. Faculty will annually lead round table discussions promoting and practicing the literature reviewed strategies of the "Teacher's Toolbox" to enhance teaching of critical thinking skills in the classroom.

The second section of the budget focuses on the public relations marketing campaign associated with "Why is My Pizza Burning?" Funds for this section of the budget will be derived from the QEP budget line, the Huntsville Campus Administration line, and Calhoun Community College's Foundation line. Again, this collaboration exhibits the broad-based support of the college's QEP. Funds in the marketing campaign will focus on the swag to be given to faculty, students, staff, and the community as well as advertising and participation incentives. Some examples of swag already being given include "Why is My Pizza Burning?" tote bags, notebooks, folders, and lapel pins. These have been used and will be used at the kick-off event and other professional development events.

Information about the QEP to the community using the college's social media accounts and digital signage at all campus sites is part of the overall marketing plan. As previously discussed, all marketing will focus on directing individuals to the QEP website. Calhoun Community College's Foundation has agreed to support initiatives to incentivize faculty and student participation. Students will receive swag and pizza gift certificates for various activities of participation during the QEP Time Frame. Faculty incentives will revolve around grants for classroom improvement, professional development, and participation dinners. Lastly, challenge coins engraved with Calhoun Community College's great seal and the QEP logo will be purchased from the Huntsville Administration Budget and given to the QEP as an in-kind donation. As previously discussed, all full and adjunct faculty will receive a challenge coin after implementation of the QEP in their classroom. This includes satisfying the syllabus requirement, signature assignment requirement, and completion of training requirements.

The third section of the QEP budget will be associated with assessment. Funds in this section will be used to fund the administration of the ETS Proficiency Profile. As discussed previously, the ETS proficiency profile will be given to a random sample of students in the QEP focus courses in accordance with the ETS User's Manual. The random sample procedure will be followed from the ETS User's Manual and administered to approximately 1000 students during the April Assessment period.

According the ETS User's Manual for a college the size of Calhoun Community College, approximately 350 exams should be administered for a valid sample with 95% confidence (See calculation on page 51). The QEP Focus Committee felt higher confidence could be achieved with greater sampling as well as fall within the financial means of the college.

The fourth section of the budget will focus on QEP personnel. The QEP Director (QEPD) will be given a minimum of a three-course release during the duration of the QEP. This will be funded from the division of the college to which the QEPD is primarily assigned. The approval of release will be submitted by the Vice President of Academic Affairs and approved by the President. The role of QEP Administrative Assistant is assigned to the Faculty Secretary of the College's Huntsville Site. A 10% salary stipend will be assigned for these duties. Funds will be available to award release time to additional faculty as needed for duties such as professional development or other QEP assigned duties on an as-needed basis as requested by the QEPD and approved by the appropriate Academic Dean and/or Vice President of Academic Affairs.

The last section of the QEP Budget will be used for miscellaneous expenses. These funds may be needed to purchase or supplement the budget as the QEP develops and the needs change. Ultimately, this budget indicates the college's support of the QEP and its success. This planned budget represents one aspect of the broad-based support the QEP receives from across the college.

CALHOUN COMMUNITY COLLEGE

"WHY IS MY PIZZA BURNING?"

SECTION E: ASSESSMENT OF ACHIEVEMENT

SECTION E: ASSESSMENT OF ACHIEVEMENT (Updated March 2022)

After the On-Site Reaffirmation Committee's review of the College's QEP and the Committee's remarks and recommendation related to the assessment of the plan, several key stakeholders at the College met, as documented by meeting minutes (November, 2021 Academic Deans meeting minutes, February 7, 2022 President's Direct Reports and Deans meeting minutes, and February 14, 2022 President's Direct Reports and Deans meeting minutes), and discussed the assessment plan of the QEP. These stakeholder meetings allowed key College personnel to understand that the original outcome related to faculty was not a student learning outcome and would better support the QEP if it were centered around the professional development that the faculty will receive related to critical thinking strategies. These stakeholders also realized that some of the original assessment tools, even though they were important measures of certain aspects of the QEP, were not associated with the original outcome to which they were connected.

The revised assessment plan for determining the impact of the College's QEP now contains appropriate outcomes for assessing the overall goal of the QEP as well as a clear timeline that includes assessment of the outcomes with annual performance goals and associated measures as well as summative performance goals/targets.

Calhoun Community College's QEP, which is entitled *Why is My Pizza Burning? An Epic Journey in Critical Thinking*, has been designed to improve students' critical thinking skills.

The overall goal of the QEP and its related outcomes are revised as follows:

QEP GOAL: **Students will be able to implement critical thinking techniques that are necessary to reach reasoned conclusions.**

The following outcomes will be utilized to measure the impact of the College's QEP:

- **OUTCOME 1:** Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines.

- **OUTCOME 2:** Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.

- **OUTCOME 3:** Students will be able to recognize the value of critical thinking skills.

- **OUTCOME 4:** Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.

Table 7.2-1: QEP Assessment Plan Timeline

OUTCOME	ASSESSMENT MEASUREMENT INSTRUMENT	ASSESSMENT COLLECTION FREQUENCY AND TIMING	ANNUAL PERFORMANCE TARGET	FIVE-YEAR PERFORMANCE TARGET
OUTCOME 1: Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines their academic discipline.	Signature Assignment in All QEP-Focused Courses	(c) BASELINE: Signature Assignment Grades from the Fall and Spring Semesters Preceding the Intervention (d) ONGOING: Annually – Based on Data from Every Fall and Spring Semester	2% improvement each year in each QEP-Focused Course*	Cohort 1 Courses: 10% Increase at the End of the Five-Year Project. Cohort 2 Courses: 8% Increase at the End of the Five-Year Project. Cohort 3 Courses: 6% Increase at the End of the Five-Year Project.
	Student Course Success Rates for QEP-Focused Courses	(c) BASELINE: Student Course Success Rates for Spring 2021 Semester (see TABLE 7.2-2 below) (d) ONGOING: Annually – Based on Data from the Spring Semester	2% improvement each year in each QEP-Focused Course*	Cohort 1 Courses: 10% Increase at the End of the Five-Year Project. Cohort 2 Courses: 8% Increase at the End of the Five-Year Project. Cohort 3 Courses: 6% Increase at the End of the Five-Year Project.
OUTCOME 2: Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.	ETS Proficiency Profile – Critical Thinking Exam	(c) BASELINE: 2019 ETS Proficiency Profile – Critical Thinking Exam Results - 14% Proficient + Marginal (d) ONGOING: ETS Proficiency Profile - Critical Thinking Exam Results in QEP-Focused Courses Annually During Spring Semester	2% improvement per year (Proficient + Marginal) from baseline	24% competency (Proficient + Marginal)
OUTCOME 3: Students will be able to recognize the value of	Critical Thinking Student Behaviors/Values Survey	(c) BASELINE: Year 1 Ratings of "Strongly Agree"	5% Increase in Ratings of "Strongly Agree" Per Year	25% Increase in Ratings of "Strongly Agree" Since Year 1

OUTCOME	ASSESSMENT MEASUREMENT INSTRUMENT	ASSESSMENT COLLECTION FREQUENCY AND TIMING	ANNUAL PERFORMANCE TARGET	FIVE-YEAR PERFORMANCE TARGET
critical thinking skills.		(d) ONGOING: Critical Thinking Student Behaviors/Values Survey Administered at the End of Fall and Spring Semesters in the QEP-Focused Courses		
OUTCOME 4: Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.	End-of-Course Evaluation Survey for the Mandatory Critical Thinking Course for all Faculty Teaching QEP-Focused Courses	(c) BASELINE: Year 1 Ratings of "Agree" or "Strongly Agree" (d) ONGOING: At the End of the Critical Thinking Online Course for Faculty, Faculty will "Agree" or "Strongly Agree" that the Course was Effective.	3% Increase in Ratings of "Agree" or "Strongly Agree" Per Year	15% Increase in "Agree" or "Strongly Agree" Since Year 1
	Other Measures: Instructor Feedback from all Professional Development Sessions on Critical Thinking	(c) BASELINE: Spring 2022 Critical Thinking Workshop: 77% of Faculty "Agree" or "Strongly Agree" that that the Workshop Provided Effective Strategies to Increase Students' Critical Thinking Skills. (d) ONGOING: At the End of Each Professional Development Workshop, Faculty Members will "Agree" or "Strongly Agree" that the Workshop Provided Effective Strategies to Increase Students' Critical Thinking Skills.	3% Increase in Ratings of "Agree" or "Strongly Agree" Per Year	15% Increase in Ratings of "Agree" or "Strongly Agree" Since Year 1

*See Table 7.2-2 for list of courses by year.

Based on the On-Site Reaffirmation Committee's suggestion that the Nursing 112 course and the Advanced Manufacturing course be moved up in the timeline for bringing the QEP-Focused courses into the implementation process, the College's administration regrouped the QEP-Focused courses into three cohorts as is illustrated by Table 7.2-2 below.

TABLE 7.2-2 QEP-FOCUSED COURSES AND INITIAL COURSE SUCCESS RATES

COHORT	COURSE NAME	ENROLLMENT (SPRING 21)	BASELINE COURSE SUCCESS RATES (SPRING 21)*
1 2022-23	BIO 103	488	73%
	ENG 101	802	66%
	PSY 200	590	74%
	ORI 110	569	73%
2 2023-24	BIO 201	365	55%
	NUR 112	115	75%
	MTH 112	578	76%
	CIS 146	425	72%
3 2024-25	HIS 201	347	79%
	MTH 100	639	77%
	ADM 111	131	90%
	SPH 107	377	66%
	ECO 231	388	52%

Course success rates are defined as students earning an A/B/C in the course.

As outlined in Table 7.2-1 above, each of the four outcomes of the College's QEP will be measured in order to assess the impact, and multiple assessment measurement instruments will be used to measure these outcomes. The data gathered will be used to aid in the College's internal process of continuous improvement of student learning. Each of the four outcomes, along with its accompanying assessment measurement instrument(s)will be discussed further here:

OUTCOME 1: Students will be able to apply critical thinking skills appropriate to key general education courses across the curriculum as well as in some specific disciplines.

Outcome 1 will be measured by two assessment measurement instruments:

1) **Signature Assignment in QEP-Focused Courses**
   The QEP Signature Assignment will be used as an assessment measure for Outcome 1. This assessment tool will measure skills and behaviors of students' learning. For successful achievement of Outcome 1. The Signature Assignment for each of the QEP-Focused Courses will be developed and/or revised to specifically include certain key components of critical thinking during the "pilot" phase of the QEP for each of the three cohorts of courses; this "pilot" phase will occur during the year prior to QEP implementation in each cohort of courses and the Signature Assignment will be "piloted" in a small number of sections during this "pilot" phase. The data from the Signature Assignment during the "pilot" phase will be analyzed and used as a baseline score for the Signature Assignment in both the formative and summative targets. The Annual Performance Target will be used as a formative assessment along the way to track the progress of improvement of Outcome 1. An Annual Performance Target of 2% per year

has been established as a goal for seeking improvement; therefore, a Five-Year Performance Target, or summative assessment, for Outcome 1 will be an increase of 10% over the baseline Signature Assignment score for Cohort 1 courses, an increase of 8% over the baseline Signature Assignment score for Cohort 2 courses which will not be implemented until year 2 of the QEP implementation, and an increase of 6% over the baseline Signature Assignment score for Cohort 3 courses which will not be implemented until year 3 of the QEP implementation. These Signature Assignments will be the same assignment and graded by the same rubric for each QEP-Focused course section taught.

2) **Student Course Success Rates**
The Student Course Success Rates will be used as a second assessment measure for Outcome 1. Since each of the QEP-Focused Courses will be redesigned with a specific focus on an emphasis of certain key components of critical thinking as well as at least one identical Signature Assignment that is specifically designed to measure students' critical thinking skills in all sections of each QEP-Focused course, these modifications should translate into an increase in student success rates for the entire course which is defined as the percentage of students who attain a grade of A, B, or C in the course. Thus, the Annual Performance Target will be used as a formative assessment along the way to track the progress of improvement of Outcome 1. The Spring 2021 Student Course Success Rates for each of the QEP-Focused Courses are outlined in Table 7.2-2 above, and these percentages will be used as a baseline of this assessment measure for Outcome 1. An Annual Performance Target of 2% per year has been established as a goal for seeking improvement; therefore, a Five-Year Performance Target, or summative assessment, for Outcome 1 will be an increase of 10% over the baseline Student Course Success Rate for Cohort 1 courses, an increase of 8% over the baseline Student Course Success Rate for Cohort 2 courses which will not be implemented until year 2 of the QEP timeline, and an increase of 6% over the baseline Student Course Success Rate for Cohort 3 courses which will not be implemented until year 3 of the QEP timeline.

OUTCOME 2: Students will be able to demonstrate "competency level" knowledge of critical thinking concepts and strategies.

Outcome 2 will be measured by one assessment measurement instrument:

1) **ETS Profile Critical Thinking Exam**
The ETS Profile Critical Thinking Exam will be used as an assessment measurement instrument for Outcome 2. In 2019, the College administered the ETS Profile Critical Thinking Exam to 1,000 students. Only 14% of the students who completed the exam were deemed competent critical thinkers by scoring at the Proficient or Marginal levels. Constraints of Covid-19 impacted the delivery of the exam in 2020 and 2021; therefore, the data from 2019 will be used as a baseline measure for Outcome 2. The Exam will be administered to a select group of students from a valid random cross-section of the QEP-Focused Courses annually during each spring semester. The College's administration has established a goal to seek at least 2% improvement per year over the 2019 percentage of 14% in the Proficient + Marginal levels of student scores. With the 2% per year improvement being the formative assessment of Outcome 2, the College has consequently set a 24% competency at the Proficient + Marginal levels on the ETS

Profile Critical Thinking Exam as a summative measurement or a Five-Year Performance Target.

OUTCOME 3: Students will be able to recognize the value of critical thinking skills.

Outcome 3 will be measured by one assessment measurement instrument:

1) **Critical Thinking Student Behaviors/Values Survey**
The Critical Thinking Student Behaviors/Values Survey will be the assessment measurement instrument used to assess Outcome 3. This survey was developed internally by Dr. Donna Estill, Dean of Humanities and Social Sciences, Dr. Tori Norris, Psychology Instructor, and Dr. John Jones, Biology Instructor, using the work of Valenzuela, Carracedo, and Saiz (2011). The researchers identified factors motivating individuals to think critically. The five factors potentially motivating individuals to value the enhancement of their own ability to think critically are (1) utility, (2) interest, (3) expectancy, (4), cost and (5) attainment. The ten-question Likert scale survey focuses on the value that students place on the utility, interest, expectancy, cost and attainment of critical thinking skills learned in the classroom while at Calhoun Community College. The survey will be administered to all students enrolled in the QEP-Focused Courses by the respective instructors at the end of the fall and spring semesters. The percentage of students who "strongly agree" with selected questions on the survey will be calculated annually, and the percentage of Year 1 students who "strongly agree" with selected questions will serve as the baseline for the measure. The College's administration has set a goal for seeking improvement over the baseline percentage of a 5% increase in "strongly agree" ratings per year; this will serve as a formative measurement. Thus, a 25% increase in "strongly agree" ratings will serve as the Five-Year Performance Target/summative measurement.

OUTCOME 4: Instructors will participate in and understand the value of professional development training related to instructional methods that promote the strengthening of students' critical thinking skills.

Outcome 4 will be measured by two assessment measurement instruments:

1) **End-of-Course Evaluation Survey for the Mandatory Critical Thinking Course for all Faculty Teaching the QEP-Focused Courses**

The End-of-Course Evaluation Survey in the mandatory Online Critical Thinking Course for Faculty will be used as an assessment measure for Outcome 4. All faculty who teach a section of the QEP-Focused Courses will be required to complete an Online Critical Thinking Course in order to receive formalized training with implementing techniques in the classroom and in course assignments to seek to improve students' critical thinking skills. When the faculty members finish this course, they will complete an End-of-Course Survey. The percentage of faculty who "agree" or "strongly agree" that this course was effective will serve as the baseline and target measurements of Outcome 4. The

percentage of faculty who "agree" or "strongly agree" that the course was effective in year 1 will serve as a baseline measurement. The College's administration is seeking improvement of 3% per year in the percentage of faculty who "agree" or "strongly agree" that this course is effective as a formative measure and a 15% increase over the baseline percentage as a Five-Year Performance Target or summative measure.

2) **Feedback Surveys for all Other Professional Development Sessions/Presentations on Critical Thinking**

Numerous professional development sessions, faculty/staff workshops, in-service meetings, etc. will be focused on critical thinking as the College's Quality Enhancement Plan is implemented. At the end of each meeting, a feedback survey instrument will be administered. Data from these feedback surveys will be analyzed to determine what percentage of faculty "agree" or "strongly agree" that the workshop/presentation provided effective strategies to increase students' critical thinking skills. The first of such workshops took place at the beginning of the 2022 Spring semester. For the Spring 2022 Critical Thinking Workshop, 77% of the faculty who attended either "agreed" or "strongly agreed" that the workshop provided effective strategies to increase students' critical thinking skills; this percentage will be used as a baseline measurement for Outcome 4. The College's administration is seeking improvement of 3% per year over the baseline percentage as a formative measure. Thus, a 15% increase in the percentage of the "agree" and "strongly agree" ratings will serve as a Five-Year Performance Target or summative measure.

Table 7.2-3 below outlines the activities of the QEP on an annual basis. The Table 7.2-3 also outlines the person(s) who will complete each activity along with the administrator who will be responsible for ensuring that each activity is completed.

TABLE 7.2-3 QEP ANNUAL ACTIVITY TIMELINE

YEAR	ACTIVITY	PERSON(S) COMPLETING ACTIVITY	ADMINISTRATOR RESPONSIBLE FOR ENSURING COMPLETION OF ACTIVITY
2021-2022 (Pilot Year for Cohort 1 QEP-Focused Courses)	Participating in Faculty Professional Development for Critical Thinking (Outcome 4)	All Full-Time Faculty	QEP Director
	Completing Mandatory Online Critical Thinking Course/Training (Outcome 4)	Faculty Teaching Cohort 1 QEP-Focused Courses	QEP Director
	Developing and Piloting the Signature Assignment in Cohort 1 QEP-Focused Courses	Faculty Teaching Cohort 1 QEP-Focused Courses	QEP Director
	Collecting Data and Analyzing Results for Outcome 1 for Cohort 1 QEP-Focused Courses	QEP Director	Dean of Planning, Research, and Grants

	Administering the ETS Proficiency Profile – Critical Thinking Exam and Analyzing Results for Outcome 2 for a Cross-Section of Cohort 1 QEP-Focused Courses	Dean of Planning, Research, and Grants	Dean of Planning, Research, and Grants
	Administering the Critical Thinking Student Behaviors/Values Survey for Outcome 3 in all Cohort 1 QEP-Focused Courses	Faculty Teaching Cohort 1 QEP-Focused Courses	QEP Director
2022-2023 (Pilot Year for Cohort 2 QEP-Focused Courses and Implementation in Cohort 1 Courses)	Participating in Faculty Professional Development for Critical Thinking (Outcome 4)	All Full-Time Faculty	QEP Director
	Completing Mandatory Online Critical Thinking Course/Training (Outcome 4)	Faculty Teaching Cohort 2 QEP-Focused Courses	QEP Director
	Developing and Piloting the Signature Assignment in Cohort 1 QEP-Focused Courses	Faculty Teaching Cohort 2 QEP-Focused Courses	QEP Director
	Collecting Data and Analyzing Results for Outcome 1 for Cohort 1 and Cohort 2 QEP-Focused Courses	QEP Director	Dean of Planning, Research, and Grants
	Administering the ETS Proficiency Profile – Critical Thinking Exam and Analyzing Results for Outcome 2 for a Cross-Section of Cohort 1 and Cohort 2 QEP-Focused Courses	Dean of Planning, Research, and Grants	Dean of Planning, Research, and Grants
	Administering the Critical Thinking Student Behaviors/Values Survey for Outcome 3 in all Cohort 1 and Cohort 2 QEP-Focused Courses	Faculty Teaching Cohort 1 and Cohort 2 QEP-Focused Courses	QEP Director
2023-2024 (Pilot Year for Cohort 3 QEP-Focused Courses and Implementation in Cohort 1 and Cohort 2 Courses)	Participating in Faculty Professional Development for Critical Thinking (Outcome 4)	All Full-Time Faculty	QEP Director
	Completing Mandatory Online Critical Thinking Course/Training (Outcome 4)	Faculty Teaching Cohort 3 QEP-Focused Courses	QEP Director
	Developing and Piloting the Signature Assignment in Cohort 1 QEP-Focused Courses	Faculty Teaching Cohort 3 QEP-Focused Courses	QEP Director
	Collecting Data and Analyzing Results for Outcome 1 for Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	QEP Director	Dean of Planning, Research, and Grants

	Administering the ETS Proficiency Profile – Critical Thinking Exam and Analyzing Results for Outcome 2 for a Cross-Section of Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	Dean of Planning, Research, and Grants	Dean of Planning, Research, and Grants
	Administering the Critical Thinking Student Behaviors/Values Survey for Outcome 3 in all Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	Faculty Teaching Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	QEP Director
2024-2025 (Implementation in Cohort 1, Cohort 2, and Cohort 3 Courses)	Participating in Faculty Professional Development for Critical Thinking (Outcome 4)	All Full-Time Faculty	QEP Director
	Collecting Data and Analyzing Results for Outcome 1 for Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	QEP Director	Dean of Planning, Research, and Grants
	Administering the ETS Proficiency Profile – Critical Thinking Exam and Analyzing Results for Outcome 2 for a Cross-Section of Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	Dean of Planning, Research, and Grants	Dean of Planning, Research, and Grants
	Administering the Critical Thinking Student Behaviors/Values Survey for Outcome 3 in all Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	Faculty Teaching Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	QEP Director
2025-2026 & 2026-2027 (Implementation in Cohort 1, Cohort 2, and Cohort 3 Courses)	Participating in Faculty Professional Development for Critical Thinking (Outcome 4)	All Full-Time Faculty	QEP Director
	Collecting Data and Analyzing Results for Outcome 1 for Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	QEP Director	Dean of Planning, Research, and Grants
	Administering the ETS Proficiency Profile – Critical Thinking Exam and Analyzing Results for Outcome 2 for a Cross-Section of Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	Dean of Planning, Research, and Grants	Dean of Planning, Research, and Grants

	Administering the Critical Thinking Student Behaviors/Values Survey for Outcome 3 in all Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	Faculty Teaching Cohort 1, Cohort 2, and Cohort 3 QEP-Focused Courses	QEP Director

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"WHY IS MY PIZZA BURNING?"

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APPENDICES

Appendix A

QEP Meeting Agenda and Meeting Minutes Sample

(ENTIRE FOLDER OF AGENDAS AND MINUTES LOCATED IN QEP DIRECTOR FILES)

Calhoun Community College

Quality Enhancement Plan (QEP)

Microsoft Teams   Current Phase:1.b
Date: September 1, 2020   Next Goal Date: 10/1/2020
Time: 3:00 pm

Immediate Goal: 1.) Narrow Topic to specific focus and expand research, 2.) Seek Participation from involved parties, 3.) name project, 4.) develop delivery plan and 5.) seek out professional development.

- Think tank on narrowing topic (Current Phase Goal 1)

- Preliminary Survey Data. Survey closes 9/2 (Current Phase Goal 2)

- Homework – Project Name (Current Phase Goal 3)

- Next Meeting via TEAMS – 09/08/2020 - 3:00 PM

QEP Meeting Minutes September 1, 2020

Quality Enhancement Plan (QEP)
Calhoun Community College Phase: 1.b
Meeting Minutes
September 1, 2020

The meeting of Calhoun's QEP Committee started at 3:00 PM on September 1, 2020 via Microsoft TEAMS.

Present

Mark Branon (Chair)	Tori Norris	Walt Mintz
Cathy Simpson	Symmetris Gohanna	Houston Blackwood
Donna Estill	John Jones	April Nunn
Ina Smith	Marty Kellum	Suzanne Turner
Jennie Walts	Reannon Wilkerson	Tanja Mitchell (recorder)

Absent
Brett Kinzer
Lawrence Miller

Immediate Goal: 1.) Narrow Topic to specific focus and expand research, 2.) Seek Participation from involved parties, 3.) name project, 4.) develop delivery plan and 5.) seek out professional development.

The objective of this meeting was brainstorming.

Preliminary Survey Results

 Many survey responses were assuming that critical thinking is equal to problem solving. The committee agreed that this is a fallacy to be avoided as critical thinking is not the same as problem solving. Language Arts is doing more of analytical reasoning than problem solving whereas the technologies and mathematics use more of actual problem solving.

The overall consensus of the responses was that how to measure/teach or what critical thinking is, is unknown. Employees would professional development in critical thinking/how to teach critical thinking. The related SLO needs to be shored up. A scenario problem could be used to measure critical thinking across all disciplines.

Bloom's Taxonomy uses the term Higher-Order Thinking. Calhoun's definition should be comprised of industry standard words for the same understanding across the board, from student to employer. Calhoun has to have a common definition but does not have to have common measures. Some schools use the California Critical Thinking Exams others use Internal Measures. The budget funds are limited.
Action:
Committee members who are good analyzing data are asked to look at the complete survey results after September 2, 2020 and search for a common theme, a general direction. Report back at the September 8, 2020 meeting to discuss.

1

Calhoun Community College

Quality Enhancement Plan (QEP)

Microsoft Teams   Current Phase: 2
Date: November 3, 2020   Next Goal Date: 12/1/2020
Time: 3:00 pm

Immediate Goal: 1.) Begin marketing campaign. 2.) Refine delivery plan/framework. 3.) Select Professional development activities for faculty.

- Framework Objective Discussion (Phase 2.2)

  a)   Goal Discussion

  b)   Objective and Strategies Discussion

- Objective Measures (Phase 2.2)

  a)   Literature Review Sub-Committee

  b)   Classroom Strategy Selection

- Assessment Review Sub-Committee (Phase 2.2)

  a)   Assessment Committee Partnership

  b)   Pre/Post Test Assessment

  c)   National Normalized Assessment

- Marketing Campaign Meeting Update (Phase 2.1)

- Next Meeting via TEAMS – 11/10/2020 at 3:00 PM

QEP Meeting November 3, 2020

Quality Enhancement Plan (QEP)

Calhoun Community College Phase: 2.0

Meeting Notes

November 3, 2020

The meeting of Calhoun's QEP Tech Team started at 3:00 PM on November 3, 2020 via Microsoft TEAMS.

Present

Mark Branon (chair)

Marty Kellum

Jennie Walts

Houston Blackwood

Walt Mintz

Ina Smith

Tori Norris

Tanja Mitchell (recorder)

The Committee discussed the following revised framework:

QEP Meeting November 3, 2020

Changes to the Goal:

This week's homework was to rethink the goal. One suggestion was, 'Improve students' critical thinking ability for their future progression.'

Mark Branon will meet with Dr. Debi Hendershot and Dr. Alan Stephenson in about two weeks to discuss the following suggestion to the QEP Goal: 'Improve Calhoun Community College students' ability to think critically as they prepare to transfer and/or enter the workforce.'

Changes to the Measurable Objectives:

The Objective 'Implement a common framework/rubric for measuring the Critical Thinking SLO in XX% of top 10 high enrollment general education courses' will have to get guidance from the Assessment Committee. The Assessment Committee has been charged but have not met yet. The QEP Committee will work closely with the Assessment Committee to formulate the Measurable Objectives. Jennie Walts will provide Mark Branon with the draft of the Assessment Manual. Mark Branon will try to be an Ex-Officio on the Assessment Committee to make collaboration easier. This objective's measurement strategies is 'Administer nationally normalized exam to compare student's ability to critically think compared to their peers.'

The Objective 'XX% of students will be able to demonstrate the ability to think critically as compared to their peers' will have the pre- and post-test. Symmetris Gohanna, Tyler, Andrews, Jennie Walt and others are looking at test options. Additionally, Professional Development is tied to this objective. The objective was changed to ' XX% of students will be able to demonstrate the ability to think critically at or above the national average on XXX exam.'

To meet the Objective 'XX% of students will demonstrate an increase in critical thinking in top ten high enrollment general education courses' a Literary Review Committee will be created on how to incorporate literature based critical thinking strategies in 70% of the top 10 high-enrollment general education courses. It is imperative not to create extra work for the faculty. The pre- and post-test could be the same article analysis to measure the improvements.

The Objective 'Integrate a series of research-based work-based learning strategies designed to increase critical thinking (analytical reasoning and problem solving) skills in XX% of AAS degree programs' is taken from the Title III Grant. Dr. Hendershot was not too fond of using a grant objective because the QEP may become too big. She suggested focusing on the top 10 high-enrollment courses, and not including work-based learning, AAS. The Objective was changed to 'Integrate a series of work-based learning strategies designed to increase critical thinking (analytical reasoning and problem solving) skills in XX% of AAS degree programs.' The strategies 'Increase the pool of Calhoun students ready for WBL opportunities by 25%' and 'Increase the number of students with WBL experiences in their declared major by 50%' belong to this objective.

Homework

Refine the wording for the four objectives (but do not change the context).

QEP Meeting November 3, 2020

Changes to Strategies of Measurement:

Literature Review Team will develop the strategies for the 'Incorporate literature based critical thinking strategies in 70% of the top 10 high-enrollment general education courses' measures.

'Increase the number of employers participating in WBL by 30%' was removed.

The strategies 'Increase the pool of Calhoun students ready for WBL opportunities by 25%' and 'Increase the number of students with WBL experiences in their declared major by 50%' emphasize WBL too much; they should emphasize workforce.

Homework:

Combine these two strategies.

Literature Review and Strategies Selection: Donna Estill, Symmetris Gohanna, Tori Norris, and Mark Branon volunteered for the lit review committee. Others can join.

The revised framework:

Homework:

Walt Mintz, Houston Blackwell, Cathy Simpson, Ina Smith: Research nationally normed exams, such as the ETS HEIghten Critical Thinking Assessment and the California Critical Thinking Exam. Take the sample exams and report.

QEP Meeting November 3, 2020

Logo/Banner

A vote of 8:2 approved the following logo/banner:

Swag Bags for Professional Development contain Bloom Taxonomy Sliders, The Miniature Guide to Critical Thinking, bookmarks (banner with essential elements of critical thinking on the back), and folder with materials.

Later, t-shirts, lapel pins, pizza shaped bookmarks, etc.

QEP Webpage Update

The page will have links to the events calendar, resources for Faculty and Students, Outcomes and/or Other Data, Meeting Minutes and Quizzes/Games.

Homework

Think of free Brain Games that can be placed on the webpage or on Facebook.

During spring 2021, this QEP project will be heavily marketed to students and faculty; several pilots will be run. SACSCOC has to approve the QEP plan before we can initiate it. The Executive Summary is due March 2021.

Meeting adjourned at 3:55 PM.

Next meeting will be held on November 10, 2020 at 3:00 PM via Microsoft Teams.

Appendix B

Q4 – What strategies do you use to improve student's critical thinking in your decision or department?

1   Offer opportunities for students to practice and perform individually and in an ensemble through varied methods to best accommodate   individual students. Ask the class for problem solving ideas which were helpful for them in musical goals.   9/2/2020 8:46 PM

2   We give easy physics problems to solve, which has room to make common mistakes.   9/2/2020 1:10 PM

3   I like to ask open-ended questions as well as follow-up questions. Use personal or anecdotal stories to help students draw parallels. Allow for   reflection (ask the "why" and be okay with the silence)   9/2/2020 12:11 PM

4   Focus on the concepts of the matter, analyze what is being considered and evaluate the situation. 9/2/2020 11:08 AM

5   Ask them if they have looked at their MyCalhoun accounts or walked them through it.   9/2/2020 9:15 AM

6   case studies, testing at the level of application or higher, class discussions   9/2/2020 9:07 AM

7   Use higher order of thinking questions-Bloom's taxonomy, case studies, group discussion, read, read, read-your view is not the only view-   reflection.   9/2/2020 8:09 AM

8   One strategy I use is introducing extra components, procedures or problems in existing labs.   9/2/2020 7:22 AM

9   Walk the students thorough case studies and examples.   9/2/2020 7:21 AM

10   I give student scenarios/ case studies and then ask them questions about the information to lead them in the right direction. 9/1/2020 8:16   PM

11   Teaching students about a topic and then making them utilize that knowledge in relation to a current event or controversial topic that is   related to that topic. Showing two sides of a situation and asking the students to consider both sides and discuss them at length.   9/1/2020 2:27 PM

12   In my courses students answer discussion questions on plays they watch using correct theatre vocabulary. They also write a critique/play   review near the end of the semester.   9/1/2020 1:05 PM

13   Encourage to read the instructions   9/1/2020 12:43 PM

14   Ask many questions to help them answer their own questions and make plans toward their academic goals. Encourage student research and   less dependency on advisors to figure everything out for them.   9/1/2020 12:13 PM

15   I asked my students about possible scenarios and with their design have the same meaning across different cultures. I also allow them to make mistakes and then analyze those mistakes and see how they could improve them. 9/1/2020 12:05 PM

16   As our focus is primarily testing, we mostly approach from a customer-service point of view: minimal signage with the most important   instructions only, hand-outs with logical instructions, etc. We utilize reflection and explanation, and involve the student when problem solving   is needed. Examples: If a web-based class test is not functioning as it should the student observes the proctor modeling critical thinking to   problem-solve the system; the student may be asked to review communication from their instructor to see if there has been a change in the   testing schedule or other directions; the student is included (copied) on email communication with the instructor if email communication is   needed. 9/1/2020 11:58 AM

17   A multitude of scenarios for the individual as well with working in pairs to learn from each others. 9/1/2020 11:58 AM

18   Advising gets less of an opportunity to do this, but I ask the student to consider the workforce opportunities, the length of time spent in   college and how that relates to earnings and benefits, and the student's schedule and availability for college.   9/1/2020 11:11 AM

19   Case studies, simulation, discussion   9/1/2020 10:58 AM

20   In support of learning outcomes, we provide students with the tool set that enable the gathering of data points. We teach logical reasoning   and data interpretation as the basis for the analysis of data.   9/1/2020 10:44 AM

21   Use learning activities which lend themselves to critical thinking development. Critical Thinking is a skill which is developed over a period of   time. Troubleshooting systems or devices is Critical Thinking.

22   Case studies, simulations, critical reflection activities   9/1/2020 10:36 AM

23   I have students explain how literature written in the past reflects or influences current events.   9/1/2020 10:21 AM

24   Scenarios in the lab aspect of class, and case studies in cognitive portions of class where students must make difficult decisions after analyzing   all the information given to them.   9/1/2020 9:53 AM

25   Reliance on Why questions to force a deeper analysis of content   9/1/2020 9:53 AM

26   Making sure the student knows the correct way to file the correct paperwork. Helping the student but not doing the documentation for them.   9/1/2020 9:50 AM

27   Being in health sciences, scenario-based skills assessments are utilized.   9/1/2020 9:48 AM

28   Students are given case studies for them to observe, analyze, and create solutions/solve the issue presented. We have discussions, research   assignments, and group discussions with spokespersons representing each group's and Sharing solution to the entire class.   9/1/2020 9:46   AM

29   I present math problems to students, I explain the first few then ask the students to perform the same analysis of thought to new problems   themselves to figure out. - If they get hung up, I try to ask them questions that get them back on track to figuring out the problem.   8/31/2020 11:59 AM

30   I have developed a critical thinking handbook that I use in my courses. Step one is to teach students how to critically think (using the elements   and standards of critical thinking from The Foundation for Critical Thinking). Step two explains the intellectual character traits associated with   being a fair-minded critical thinker. Finally, students are introduced to techniques that show them how to avoid egocentric and sociocentric   thinking, how to question dogmatic and relativist thinking, how to close read, how to differentiate between the three kinds of questions we   might ask, how to question concepts, how to ask essential questions, and how to analyze the logic of an argument.   8/31/2020 11:50 AM

31   1. exam/quiz questions which demand students consider different models for concepts, analyze data, and draw conclusions. 2. in labs, create   hypotheses, design tests, analyze data to draw conclusions.   8/31/2020 9:57 AM

32   To have students solve their own problems, provide them the tools or the scaffolding for them to succeed on their own - but not the   solutions.8/31/2020 8:23 AM

33   Discussion Questions, Higher Order Multiple Choice Test Questions   8/30/2020 7:35 PM

34   Students must take a Writeplacer in the Bridge Program and score a 5 to be eligible for English 101. Most students do not have the experience   or knowledge on the makings of a critical argument. I break down the prompts and provide supporting details to bring logical reasons to   clarify and build the argument. This is a very needed skill in our classroom. I use this each semester with my students.   8/30/2020 8:45 AM

35   We begin each semester talking about what the term means in general and specifically to our particular course. An excellent approach is using   critical thinking to find relevance between two or more things. One can't just define and assign; early on doing it as a class is a good idea and   continuing throughout the course.   8/29/2020 6:21 PM

36   Discussions, exams, writing assignments.   8/29/2020 12:36 PM

37   I develop the delivery methods for each course based on the five canons of rhetoric: inventio, dispositio, elocutio, memoria, and pronunciato.   I rely heavily on the Socratic method of instruction during course meetings, and I require students to produce handwritten analytical work   throughout the course.   8/29/2020 10:03 AM

38   Encourage students to have self awareness, take a moment to think before responding, and to listen more than speak.   8/28/2020   5:09 PM

39   Challenging questions during lectures/discussions, shared clinical scenario activities, exam questions designed to encourage critical thinking.   8/28/2020 3:35 PM

40   Reading, writing, discussion, and research.   8/28/2020 12:32 PM

41   Allow students to speak freely, but air on the side of caution. Expression with experience is the greatest gift.   8/28/2020 10:33 AM

42   I encourage students to make connections between what we learn in the classroom to their other classes and/or what they witness in   the   world around them. Those connections should then grow into new models of thinking/processing information or situations.   8/28/2020   10:17 AM

43   Give students what they need to solve problems, and then give them some space to complete the task.   8/28/2020 9:20 AM

44   By asking them to work out a problem and explain the concept in their own words   8/28/2020 7:50 AM

45   With students I like to ask questions that assist them in thinking critically about a situation, problem, issue of concern. Your goal is to get them   to think and ask themselves the critical questions.   8/28/2020 7:26 AM

46   I create problems, the student will find solutions 8/27/2020 5:09 PM

47   I encourage students to not try and just fix any mistakes or problems they have but to understand how it happened in the first place.   8/27/2020 5:03 PM

48   Making them more independent and updated on information useful to them in their college life.   8/27/2020 1:37 PM

49   I am not sure of all strategies used in the division, but would suggest occasionally presenting exercises where there are no "correct" answers   in the traditional sense. Rather, these exercises must allow students to work through a problem or question and arrive at a solution. Make it   clear from the start that there is no one correct answer; this will allow students to use their own critical thinking skills. 8/27/2020 1:25 PM

50   Trying to help them come up with a plan of action to address certain issues that could come up in the field of welding, fabrication, and   construction. Use of trade terms for example, used in field but maybe not heard or read about when studying such information in text books.   (one example)   8/27/2020 1:11 PM

51   ORI 110 classes   8/27/2020 1:06 PM

52   In music we teach shared vocabulary of concepts and terms so that we can talk about music. We learn different ways of listening to music,   analyzing the many ways it is created, what it is (and that varies around the world), its histories, how to make music (by performing,   improvising, and composing), how to appreciate it as a listener as well as a performer. And we teach how to teach it, because that requires a   deeper level of analysis and conceptualization. We also discuss how important it is in society not just for entertainment, but to bring groups   together, add meaning to ceremonies and other occasions.   8/27/2020 12:45 PM

53   With cultural concepts, or grammar structures, I always try to make the content relevant to things they already know. Establishing a   connection or common ground is important to lay a proper foundation to develop critical thinking.   8/27/2020 12:14 PM

54   1. Student learning outcomes problems. 2. Writing assignments 3. Verbal communication   8/27/2020 12:11 PM

55   There are various methods that involve problem exercises, hands-on activities, and group activities.   8/27/2020 11:48 AM

56   get them more involved by asking have have them ask questions relevant to what they believe   8/27/2020 11:32 AM

57   Constant and clear communication to ensure the best decisions are made.   8/27/2020 11:30 AM

58	Asking questions that leads them to thinking more intensely about the materials	8/27/2020 11:20 AM

59	Problem solving assignments, discussions	8/27/2020 11:12 AM

60	Interpret and evaluate canonical, popular, and temporal literature including all genres of fiction and non-fiction (including but not limited to	literary texts, historical documents, essay, etc.) We deconstruct these texts and then reconstruct them for evaluation and interpretation	based on critical thinking about each piece to get to critical thinking about the whole text.	8/27/2020 11:10 AM

61	N/A	8/27/2020 11:10 AM

62	At this time, I can't think of any specific strategies that I have implemented for this purpose.	8/27/2020 10:56 AM

63	I present them with information that is sometimes controversial and uncomfortable, and challenging the students to consider the other side.	8/27/2020 10:54 AM

64	True classroom conversations, not just lecture. Encourage application/demonstration and discussion questions on homework and exams.	8/27/2020 10:52 AM

65	I have a strategy I refer to as 'MAP' = Motivation / Application / Potential 1. Motivation: What is your personal connection to the topic at	hand? 2. Application: Why does this matter to you and your future, and specifically define the importance of such, in terms of short term &	long term academic and professional goals? 3. Potential: How could you parlay your skills in critical thinking to achieve higher educational	goals and real-world skills for employment & professional development?	8/27/2020 10:35 AM

66	Normally, we ask questions that require the student to apply the information learned in the material to a real world question or problem.	These questions may take the form of multiple choice, short answer, or essay.	8/27/2020 10:30 AM

67	We strive to use best practices gathered from hundreds of educational facilities management throughout North America and National Law	Enforcement Agencies.	8/27/2020 10:28 AM

68	Assign writing assignments that encourage students to think critically about what they read and express this criticism through their writing.	8/27/2020 10:24 AM

69	I am not an instructor, but when I did teach, I found that writing compare/contrast essays and argumentative essays promoted critical thinking.	8/27/2020 10:22 AM

70	case studies, live and static simulation	8/27/2020 10:13 AM

71	n/a	8/27/2020 10:10 AM

72	Provide interaction with students on their financial aid issues such as FATV or information provided on our website.	8/27/2020 10:10 AM

73	There are several reading skills books that have been my go to over the years.	8/27/2020 10:05 AM

74	Model and practice active reading strategies Practice student-driven inquiry through active learning Practice problem solving through	collaboration with peers Practice evaluation and analysis of scholarly work through writing	8/27/2020 9:59 AM

75	Essay assignments about periods of art or artworks.	8/27/2020 9:55 AM

76	Acting exercises and discussions; written play critiques and analysis; rehearsing and producing a production in which students are asked to	develop roles of characters in a play and/or help to execute technical and aesthetic elements in the production such as scenery, costumes,	props, lighting	8/27/2020 9:52 AM

77	I have students use real world experience.	8/27/2020 9:49 AM

78	Problem solving.	8/27/2020 9:41 AM

79   Follow up questions making students think.   8/27/2020 9:20 AM

80   I ask students to write essays based on their own research, to determine relevance of historical facts on their own by including class   discussions, etc.   8/26/2020 7:33 PM

81   high level Bloom's taxonomy educational questions   8/26/2020 7:09 PM

82   Create assignments, labs, and exams that require the use of all of Bloom's Taxonomy. Assignments, labs, and exams require a lot of problem-   solving, troubleshooting, group work, planning, designing, decision-making, clear documentation, and clear communication.   8/26/2020   2:28 PM

83   Reading curriculum 8/26/2020 1:16 PM

84   I utilize exercises that are not just multiple choice and true/false. I also utilize group work to enhance critical thinking.   8/26/2020 11:18 AM

85   Socratic teaching, document analyses, writing responses, classroom discussions, peer engagement, and peer review.   8/26/2020 1:40 AM

86   Lecture Case Studies 1-minute Care Plan Use of concept maps and nursing care plans Find the error in the pt room activity   8/25/2020   3:55 PM

87   I try to improve a student's soft skills.   8/25/2020 2:48 PM

88   With the students I have, I would tap into the uniqueness of each student. Using techniques on an individual and collective level. I will often   encourage their efforts.   8/25/2020 2:11 PM

89   Thinking and writing about symbolism 8/25/2020 1:08 PM

90   Resources used for critical thinking are: Career Coach and Focus2 Assessment 8/25/2020 11:40 AM

91   Case studies Analysis of clinical photographs Individual and group discussion questions   8/25/2020 11:23 AM

92   For public speaking, the ideal way to improve students' critical thinking is by teaching students how to research credible material, to be able to evaluate what is fact vs. fiction. This leads to the persuasive speech assignment, where students try to convince the audience to take on their point of view. This has to be done with logic, which is borne from excellent research. 8/25/2020 11:07 AM

93   1) Present the course material in a way that engages their minds. 2) Posit problems to be solved, or situations to be resolved, as you prefer,   and then work through these, applying rigorous logic, to reach a conclusion.   8/25/2020 9:07 AM

94   Utilize the who, when, where, and what strategy.   8/24/2020 10:44 PM

95   Define the end results that are needed Increase your situational awareness   8/24/2020 9:58 PM

96   Ask questions such as "what if" and encourage students to come up with "if so then what" type of questions.   8/24/2020 9:23 PM

97   Case studies, socratic questioning   8/24/2020 8:11 PM

98   Modeling 8/24/2020 8:10 PM

99   Having students apply key principles/concepts to address real world examples/cases.   8/24/2020 8:06 PM

100   In my department, I would improve students' critical thinking skills by asking students to apply these skills by participating in Blackboard   discussion assignments.   8/24/2020 7:54 PM

101   Giving scenarios, or group work.   8/24/2020 7:45 PM

102   Assignments, application questions on exams, use of examples in lectures, choice of discussion questions, etc.   8/24/2020 7:21 PM
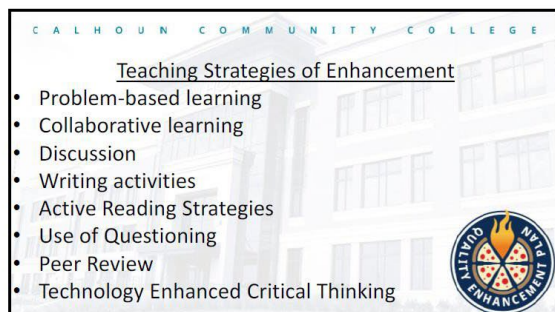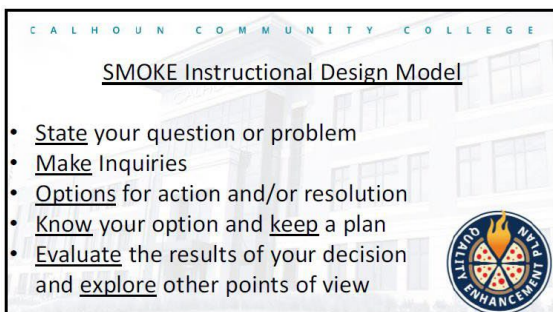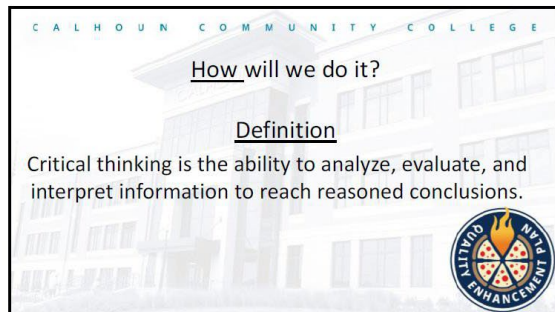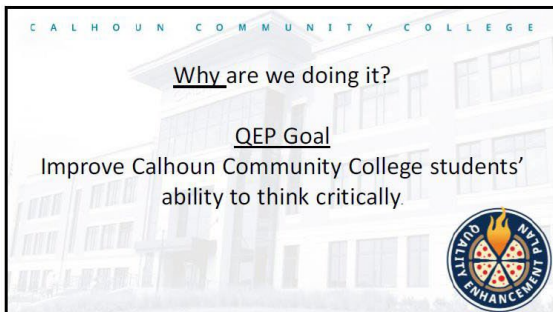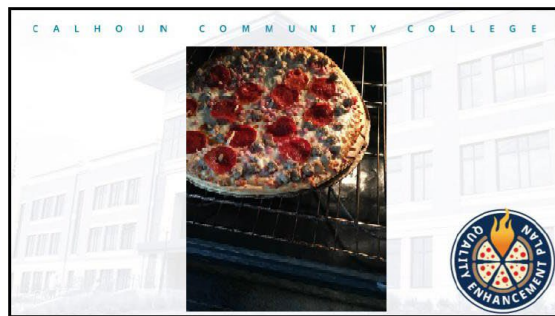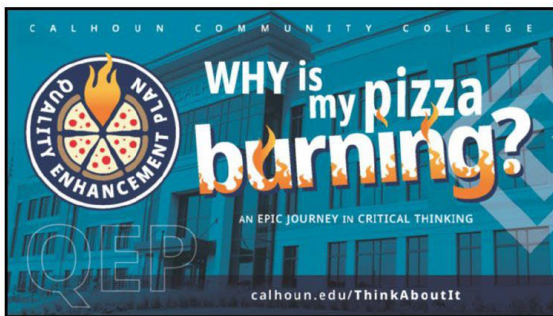
103   I try to help student know what questions to ask If they have a problem.   8/24/2020 7:06 PM

104   Students must create proper signal flow from source to recorder. Often there are technical issues with equipment and students must also find   the issue following a logical plan.   8/24/2020 6:45 PM

105   Had never thought about it.   8/24/2020 5:18 PM

106   Operationalizing terms, clarifying problems, and seeking peer reviewed or credible sources for information   8/24/2020 5:06 PM

107   N/A   8/24/2020 4:35 PM

108   Asking questions promoting thinking (i.e. using the Socratic Method) 8/24/2020 4:25 PM

109   By asking questions and waiting for a response   8/24/2020 4:22 PM

110   Not students, rather coworkers, I ask them questions that prompt them to thinking about what they know to arrive at the answer all by   themselves and then confirm them. It empowers them by realizing the knowledge they possess but just lack the confidence.   8/24/2020   4:20 PM

111   It's a science class, so I try to show them how to interpret data and also that it's often possible to interpret the same data in different ways.   8/24/2020 4:20 PM

112   I ask students to figure out an issue that has not been directly taught by using previously learned facts.   8/24/2020 4:16 PM

113   I ask them to read a selection and either discuss the main points and respond with their thoughts; or I ask them to apply it to their lives in   some way so they can relate to it (if it is an older text).   8/24/2020 4:05 PM

114   We discuss case studies and concepts that are not easily explained.   8/24/2020 4:03 PM

115   Open ended questions and discussion. The correct answer, if there is one, is only given at the end of the brainstorming session. I guide using   the seven problem solving steps.   8/24/2020 4:01 PM

116   I like to ask questions to get students to discover a new lesson rather than tell them "how" to work a problem. If they discover it, they are less   likely to forget it.   8/24/2020 4:01 PM

117   I incorporate assignments that put the learned lesson to work in a practical situation. I use assignments that force immediate application in   real world scenarios.   8/24/2020 3:57 PM

118   Engage in workplace scenarios   8/24/2020 3:53 PM

119   Brainstorming   8/24/2020 3:47 PM

120   I do assignments in which students are asked to analyze problems and issues and then use evidence to support their proposed solution or   conclusions   8/24/2020 3:47 PM

121   Case studies Increasing level of comprehension and higher difficult problems   8/24/2020 3:47 PM

122   N/A   8/24/2020 3:46 PM

123   no student involvement   8/24/2020 3:45 PM

124   Pose a social issue and have them debate the issue giving both the pros and the cons, then have them come to a judgment. Sometimes they   discuss in groups, other times they write individual positions then share it in class. From this position they come to individual judgment or   decision about the issue.   8/24/2020 3:45 PM

125   I use weekly discussions and discussion questions on exams. I also engage students during weekly online office hours.   8/24/2020 3:41 PM

126   I create assignments, including essays, that require that students answer open-ended "how" and "why" questions to analyze and evaluate or   argue a point.   8/24/2020 3:33 PM

127   Explaining the situation and asking for feedback. 8/24/2020 3:33 PM

128   On the job working and training.   8/24/2020 3:22 PM

129   Giving students a "step by step" approach and breaking a problem down into smaller steps.   8/24/2020 3:01 PM

130   We have critical thinking questions as part of homework assignments and exams. Many instructors use case studies and/or shorter case scenarios in class for   modeling critical thinking and having students practice.   8/24/2020 2:55 PM

131   Open-ended questions that students can either address at the moment or think about for longer while at home. Identifying contrasting scenarios between   actions and wants/objectives.   8/24/2020 2:47 PM

132   Essay questions on tests, writing requirements in discussion forums, and a term paper assignment.
        8/24/2020 2:45 PM

133   I provide students with "problem solving" assignments. They are given all the tools and concepts they need to create a design, but I don't give   them the steps.   They must create the process on their own to achieve the desired finished product. 8/24/2020 2:41 PM

134   Nurse care planning during clinical, lab or classroom activity   8/24/2020 2:37 PM

135   Multi-step word problems.   8/24/2020 2:29 PM

136   I encourage students to understand "why" something is the answer, instead of just "what" the answer is. I focus on teaching theory, and   demonstrating   examples of application, of that theory. Student assignments focus on application, of theory.   8/24/2020 2:28 PM

137   Practice problems In class, Socratic lectures, and case studies.   8/24/2020 2:27 PM

138   Teaching the skills and techniques for thinking critically. Requiring assignments that demonstrate these skills and techniques. Then helping the   students to   grow by evaluating their work and progress with positive, constructive feedback.   8/24/2020 2:27 PM

139   Discussion groups and discussion questions, gaming/problem solving 8/24/2020 2:23 PM

140   Telling them how to find something, but having the di it for themselves.   8/24/2020 2:22 PM

141   Two of the most effective strategies are close critical readings of non-fiction texts and a system for evaluating sources known as CRAAP   analysis (Currency, Relevance, Authority, Accuracy, Purpose).   8/24/2020 2:20 PM

142   Open ended questions, application of knowledge 8/24/2020 2:15 PM

143   I give them opportunities to develop and practice critical thinking by giving them a problem or   issue to consider and then showing them   how to think   through (and use different bit of information) an issue and arrive at a solution.   8/24/2020 2:12 PM

144   Listen to how they view the world. Try to help them to discover how the pieces fit to the subject at hand.
        8/24/2020 2:11 PM

145   Case Studies and problem solving opportunities from the projects that they complete for the class.
        8/24/2020 2:08 PM

146   Work Based Learning and clinical rotations as well as high fidelity simulations   8/24/2020 2:05 PM

147   Use application problems. Case studies.   8/24/2020 2:04 PM

148   Incorporate more "word" problems. Talk to students about strategies for solving problems and model examples.
        8/24/2020 2:04 PM

149   Many times, my contact with a student is when they have a complaint. After talking with the student, there are times that I ask them what they would like   for   us to do to assist them, especially when we have exhausted all of the options and the student is still not satisfied. This makes them have to think.8/24/2020 2:00 PM

150   analytical reading/writing   8/24/2020 1:59 PM

151   propose scenarios for analysis Ask open ended questions   8/24/2020 1:58 PM

152   Asking questions and making comparisons   8/24/2020 1:57 PM

153   In-Class Group activities, Homework activities, Programming activities.   8/24/2020 1:55 PM

154   We teach students to solve problems which can be expressed mathematically. This involves taking a problem, translating it into mathematics, using logic and   algorithms to solve it, and translating the solution back into real-world language.8/24/2020 1:55 PM

155   We assist all departments within the college to present information to the students as well as the general public. We try to be as clear and concise as   possible in presenting our information so as to not hinder their critical thinking.   8/24/2020 1:54 PM

156   Adaptive quizzing, group discussion, engagement8/24/2020 1:53 PM

157   Instructional methods such as case studies, role play, or other means that allow students to take concepts learned in the course and apply those concepts to   solve a problem.   8/24/2020 1:52 PM

158   Ask basic questions or give basic challenges   8/24/2020 1:51 PM

159   case study discussions   8/24/2020 1:51 PM

Appendix C
Explaining the QEP PPT Presentation

Why are we doing it?

QEP Goal
Improve Calhoun Community College students' ability to think critically.

How will we do it?

Definition
Critical thinking is the ability to analyze, evaluate, and interpret information to reach reasoned conclusions.

SMOKE Instructional Design Model

- State your question or problem
- Make Inquiries
- Options for action and/or resolution
- Know your option and keep a plan
- Evaluate the results of your decision and explore other points of view

Teaching Strategies of Enhancement
- Problem-based learning
- Collaborative learning
- Discussion
- Writing activities
- Active Reading Strategies
- Use of Questioning
- Peer Review
- Technology Enhanced Critical Thinking

Slide 1

C A L H O U N   C O M M U N I T Y   C O L L E G E

How will we assess it?

- LO # 1 – SWBAT Demonstrate "competency level" knowledge of critical thinking concepts and strategies.
  - ETS Proficiency Profile during Assessment Week
  - Institutional General Education Critical Thinking SLO report
- LO #2 – SWBAT implement accepted conventions of critical thinking skills appropriate to one's academic discipline with proficiency.
  - Signature Assignment in the classroom
  - Critical Thinking Values Survey

Slide 2

C A L H O U N   C O M M U N I T Y   C O L L E G E

How will we assess it?

- LO #3 - TWBAT implement instructional methods to promote student knowledge and application of critical thinking strategies.
  - Section Evaluation Form (10% Pledge)
  - Faculty Development Report
  - 25% minimum PD dedicated to teaching and assessing critical thinking

Slide 3

C A L H O U N   C O M M U N I T Y   C O L L E G E

Where will we do it?

This will be accomplished by focusing on TEACHING critical thinking in the classroom using proven, literature reviewed techniques and the SMOKE instructional design model in QEP Focus Courses.

Slide 4

C A L H O U N   C O M M U N I T Y   C O L L E G E

Who will be impacted?

- Students in QEP Focus Courses
- Faculty teaching in QEP Focus Courses
- Non-QEP Faculty
- The College
- The local community and workforce

Slide 5
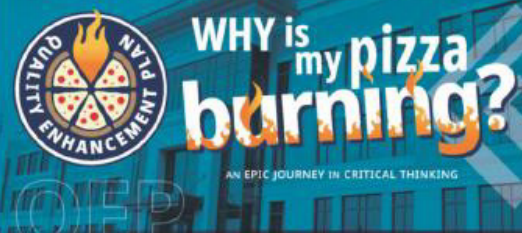
C A L H O U N   C O M M U N I T Y   C O L L E G E

Year	Course
Year 0 2021-2022	BIO 103 - Principles of Biology I
	ENG 101 - English Composition I
	PSY 200 - General Psychology
Year 1 2022-2023	BIO 201 - Human Anatomy & Physiology I
	MTH 100 - Intermediate College Algebra
	ORI 110 - Freshman Seminar
Year 2 2023-2024	CIS 146 - Microcomputer Applications
	HIS 201 - United States History I
	MTH 112 - Precalculus Algebra
	SPH 107 - Fundamentals of Public Speaking
Year 3 2024- 2025	ADM 111 - Manufacturing Safety Practice
	ECO 231 - Principles of Macroeconomics
	NUR 112 - Fundamental Concepts of Nursing

Slide 6

WHY is my pizza burning?
AN EPIC JOURNEY IN CRITICAL THINKING
calhoun.edu/ThinkAboutIt

Appendix D

ENG 101 Course Sample Syllabus with Signature Assignment

Department Syllabus
ENG 101, English Composition I

> This syllabus should not be copied and given to students. Instead, instructors should create a custom syllabus following these guidelines and including the specifics of the instructor's course.
>
> Information in **red** should be customized to fit the parameters of each instructor's class. Information in **black** should be copied and pasted into each syllabus intact.

I. **Instructor Information**

    A. Instructor's name

    B. Instructor's office location

    C. Office hours

    D. Office phone number

    E. E-mail address

II. **Course Information**

    A. ENG 101, English Composition I. 3 credits.

    B. Section number and reference/synonym number

    C. Class (and laboratory) meeting time (days and times) and location(s)

    D. Prerequisite: ENR 094/098 with a C or better OR ENG 093 with a C or better OR 18 or above on English on the ACT OR 480 or above on the Verbal SAT OR 70 or above on the Compass Writing Test OR a score of 5 or above on the Accuplacer WritePlacer

    E. Course description: English Composition I provides instruction and practice in the writing of at least four extended compositions and the development of rhetorical strategies, analytical and critical reading skills, and basic reference and documentation skills in the composition process. English Composition I may include instruction and practice in library usage and information literacy.

    F. Course objectives: At the conclusion of this course, students should be able to do the following to a degree of 70% or higher:

        CO1. Write well-supported, focused, and coherent essays from development of subject through revision of the essay;

        CO2. Apply basic reference and documentation skills (e.g., MLA and APA) with emphasis on ethical use of sources;

        CO3. Demonstrate, in writing, analytical and critical reading skills of non-literary texts; and

CO4. Use written Standard American English in academic contexts.

III. The purpose of this course is to develop students' critical thinking skills through objectively discussing, analyzing, and evaluating textual and visual arguments about a variety of contemporary and literary subjects and from a variety of perspectives. Individual instructors are allowed the academic freedom to assign readings they choose based on their own discretion, and readings will come from the Composition Department's assigned textbooks as well as other sources. Students may find that some course texts are about controversial topics, run counter to their personal values, or make them uncomfortable. However, students are in no way expected to adopt viewpoints with which they disagree, nor will they be assessed based on whether they personally agree or disagree with a particular viewpoint.

IV. **Textbooks**

Required for All Sections
Hacker, Diana, and Nancy Sommers. *A Writer's Reference.* 10th ed. With Writing about Literature and Writing in the Disciplines, Bedford/St. Martin's, 2021.
1. **Custom *A Writer's Reference***
   ISBN: 9781319453701
2. If you wish to use both *A Writer's Reference* and *Inquiry*, see A.1 below.

Required for Adjunct Instructors
Greene, Stuart, and April Lidinsky. *From Inquiry to Academic Writing: A Text and Reader*. 5th ed., Bedford/St. Martin's, 2021.
1. ***Inquiry* + Custom *Writer's Reference* + 2-term Achieve**
   ISBN: 9781319453671
2. ***Inquiry* without Achieve**
   ISBN: 9781319244019

V. **Instructional Methods**
- Lecture and discussion of readings from the textbook
- Writing assignments
- Quizzes and tests
- Group work
- Audio-visual presentations
- Online assignments
- Guidance on library resources (Library and LRC resources and services are accessible on-line at https://calhoun.edu/library/.)

VI. **Grading**
Grades will be given based upon A=90-100%, B=80-89%, C=70-79%, D=60-69%, and F=below 60%.

Grading must be based on at least 80% of grades earned on compositions.

The final exam should include, and may consist entirely of, an essay.

Instructors may use the English Department Grading Policy,* or each writing assignment should be assessed in accordance with assignment criteria.
 *To be discussed and revised later.

VII. Course Assignments
- Students must write at least four extended compositions or equivalent assignments.
- Of the four compositions, the following two assignments must be included:
  - Five-paragraph essay
    - Source-based synthesis argument*
- All composition topics must be non-literary, including topics based on readings from the current textbook.
- Students must use multiple documentation styles (e.g., MLA and APA).

*The source-based synthesis argument serves as the signature assignment for both the Learning Outcomes Measurement and the Quality Enhancement Plan. When approaching the signature assignments in English 101 and English 102, students will employ the following five-step critical-thinking process:

1. Identify the question
2. Gather credible facts and information
3. Outline a response using the gathered credible facts and information
4. Draft a logical, informed response
5. Reflect to ensure the response addresses the original question

Each student's signature assignment will be assessed and scored using the Composition Department's Student Learning Outcomes Rubric, with a score of 3 to 5

[Specify course assignments and point/weight values.]

VIII. Attendance
[Statement concerning attendance policy. See College Syllabus: Policies and Procedures for more information.]

Administrative Withdrawal for Excessive Absences
[If you plan to withdraw students for excessive absences using the college policy, include a statement about administrative withdrawal here. See College Syllabus: Policies and Procedures for more information.]

Administrative Withdrawal Appeals

[If you plan to withdraw students for excessive absences using the college policy, include a statement concerning the administrative withdrawal appeal procedure. See College Syllabus: Policies and Procedures for more information.]

Final Examination
[Date, time, and location. **NOTE**: *Instructors are required to convene class for final exams and to do so at the time specified in the final exam schedule published in the course schedule each semester. See College Syllabus— Policies and Procedures for more information*.]

IX.   Make-Up Policy
[Statement concerning makeup policy/how to make up missed work.]

SEE COLLEGE SYLLABUS FOR <u>REQUIRED INFORMATION</u> REGARDING THE FOLLOWING ITEMS:
X.   Withdrawal Policy
XI.   Disability Statement
XII.   Student Code of Conduct
XIII.   Cheating and Plagiarism
XIV.   Student Complaint Procedures
XV.   Communication
XVI.   Institutional Outcomes

XVII. Support Services for Student Writers

<u>STAR INSTITUTE –DECATUR and HUNTSVILLE **FREE TUTORING**</u>
[The statement below is subject to change. STAR will email updates each semester.]
The STAR Institute on the Decatur Campus **has moved to Chasteen Student Center Room 230 .** STAR Huntsville is in the Sparkman Building, Room 206, just beside the Student Center. Many resources are provided including one on one tutoring in most subject areas. Students can also attend group study sessions. STAR hours are Monday- Thursday, 8:00 a.m. to 8:00 p.m. and Friday, 8:00 a.m. to 11:45 a.m. For more information, call (256)306-2594 in Decatur or (256)713-4882 in Huntsville. Tutoring appointments can be made by using the TutorTrac button in your MyCalhoun portal. Visit our web site at http://calhoun.edu/student-resources/tutoring for information and directions.

<u>Library Usage</u>
Students are encouraged to take at advantage of the many resources offered through Calhoun Community College Libraries (Decatur and Huntsville Campus). Librarians offer and facilitate academic research Instruction/Orientation to classes as well as one on one Research/Resource consultations. A professional Librarian is always on duty to help with Research/Resource needs. Whatever the assignment may be, a Librarian will be there to guide students through the various research methods required.

In addition, research questions can be sent to reference@calhoun.edu. The Library also provides quiet study areas and study rooms.

Hours: Monday –Thursday 7:45am – 8:00pm Fridays 7:45 – 11:45am (both locations)
Phone: Decatur (256) 306-2777 or Huntsville (256) 890-4777

For more information and services provided by the Library, please visit: https://calhoun.edu/library/

XVIII. Microsoft Office

All Calhoun students have free access to Microsoft Office through their MyCalhoun portal. In addition to using the online software, students have to option to install a full version of Office on their personal computers.

XIX. Course Schedule

[Weekly or daily list of assignments, including tentative dates and topics]

Appendix E

Critical Thinking Values Survey, AT-2.2

1. Compared to others, I am a good critical thinker.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

2. I like to reason properly before making a decision.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

3. Thinking critically will be useful for my future personally.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

4. I like doing things that challenge me mentally.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

5. Thinking critically is useful to me in making decisions.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

6. I expect that I will have to think critically in the courses I will take.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

7. I am capable of learning how to reason well.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

8. Thinking critically will be useful for my future professionally.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

9. I would like to learn more about thinking critically.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

10. It is worth investing time and effort to learn and use critical thinking.

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5	4	3	2	1

Appendix F

Section Evaluation Form (AT-2.3)

Course Number: _____   Course Name: _____

Course Section Number: _____   Course Instructor: _____

Semester: _____

1.) Number of students enrolled in section: _____

2.) Number of students attempting Signature Assignment: _____

3.) Number of students with a proficient score on the Signature Assignment: _____

4.) What literature reviewed strategies for teaching critical thinking did you use in this section of the course: (Check all that apply)

_____   Problem Based Learning
_____   Collaborative Learning
_____   Discussion
_____   Writing Activities
_____   Reading
_____   Use of Questioning
_____   Peer Review
_____   Technology Enhanced Critical Thinking
_____   None of the Above