Critical Thinking through Writing:
Georgia State University's Quality Enhancement Plan

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Executive Summary

The goal of Georgia State University's Quality Enhancement Plan (QEP), Critical Thinking through Writing, is to increase our baccalaureate students' performance on two of the University's general education learning outcomes – critical thinking and written communication – as evidenced in their academic major. One of the primary aims of undergraduate education is to develop citizens who are able to engage in critical thinking and clear writing, and major degree programs play a critical role in the development of these abilities. Georgia State University, as an institution, stresses the importance of general education learning outcomes in the core and in the major. Incorporating writing as the conduit for the expression of critical thinking, emerges from our experiences with existing student-centered learning initiatives, such as Writing across the Curriculum, the Writing Studio, and Supplemental Instruction. In addition, review of information on student learning outcomes for undergraduate programs and other university-wide assessments support a focus on critical thinking and writing. Recent results from the 2005 National Survey of Student Engagement indicated that our seniors judged their own critical and analytical abilities to be lower than their peers. They also reported writing fewer short papers than their peers. Surveys of our students about their levels of competence on writing indicate that they perceive their abilities to write to be lower when they graduate compared to when they entered. Finally, critical thinking was the most common general education learning outcome assessed in the major by academic departments, and it was identified as the most important student learning outcome in both surveys and interviews with department chairs and faculty.

Enhancement of critical thinking and writing will be accomplished by implementing a university-wide graduation requirement (effective for students entering in fall 2009 and thereafter) that undergraduates pass two critical thinking through writing (CTW) courses in their major. Each course, designed by the major department and approved by the General Education Assessment Subcommittee of the University Senate's Committee on Academic Programs, will contain multiple writing-to-learn activities and assignments that address issues relevant to that major. CTW activities and assignments will be structured to permit frequent feedback to students and opportunities for revision. Course assignments will align with the University's definition of critical thinking: a "wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, evaluate arguments and truth claims; to discover and overcome personal prejudices; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do"(Bassham, Irwin, Nardone & Wallace, 2005, p. 1). The student to instructor ratio in CTW courses may not exceed 25:1, thus creating an environment conducive to active learning.

Implementation of CTW will continue to be guided by the faculty. The General Education Assessment Subcommittee of CAP, with representatives from all constituents of the university (students, staff, faculty, department chairs, and university administrators), is charged with

approval of departmental CTW plans, review of assessment reports prepared by departments, and re-design of the elements of CTW based on what is learned from feedback and assessment reports. The University Senate endorsed a "train the trainer" model that requires departments to select one or more CTW Ambassadors for each of our 54 majors who have been trained in workshops coordinated by CTW Coordinators. The CTW Coordinators consist of five faculty members, two of whom have specific expertise in critical thinking and writing and three of whom have relevant disciplinary experience. CTW Ambassadors will be required to attend at least one workshop each academic year and participate in an annual Spring Forum where they will share with each other the experiences of implementing CTW in their respective disciplines. CTW Ambassadors are responsible for training instructors assigned to CTW courses, in accordance with their departmental plan for such training. Additional faculty development and instructional support will be supported through existing resources, such as the Center for Teaching and Learning and Writing across the Curriculum.

Having emerged primarily from conversations with faculty and students, and from our knowledge of how our students are currently performing in the areas of critical thinking and writing, the CTW initiative is nested within each academic department, where the CTW Ambassador serves as a linchpin for our success. In this role, the Ambassador implements both the instruction and the assessment aspects of the plan by preparing instructors for CTW courses and also assuring that assessment of student learning is conducted and reported. As their title implies, CTW Ambassadors will play a key role in building relationships with others and representing their fields/disciplines as we engage in campus-wide conversations about what constitutes critical thinking and writing in our baccalaureate degree programs.

Critical Thinking through Writing will be assessed directly through department's annual reports of student learning outcomes for the major, through a variety of surveys of instructors and students, and through written reports from Ambassadors, as well as indirectly through use of NSSE Benchmark items and exit surveys of graduating seniors. Additional questions added to alumni surveys, currently conducted when academic units undergo Academic Program Review, will provide further useful information on the impact of CTW on student learning.

Over the next six years, the University plans to spend over $6 million to enhance the critical thinking and writing skills in the discipline for undergraduate students in five of our six colleges, where all undergraduate majors reside. Management of the CTW initiative as a whole is the responsibility of the QEP Leadership Team, comprised of faculty and administrators. However, close collaboration across all levels (course, department, college, and institution) is key to both successful implementation and performance outcomes. We believe that the goals of our Quality Enhancement Plan, to enhance critical thinking and writing throughout baccalaureate education at Georgia State University, are ambitious, imperative, and sustainable.

I.   The Importance of Critical Thinking and Writing: The National Picture

One of the primary aims of undergraduate education is to develop citizens who are able to engage in critical thinking and clear writing. However, there is ample evidence to suggest that university graduates are not widely perceived as possessing these benchmark traits (Bok, 2006). A 2006 report issued by US Department of Education entitled, *Test of Leadership: Charting the Future of American Higher Education* notes that "… there are also disturbing signs that many students who do earn degrees have not actually mastered the reading, writing, and thinking skills we expect of college graduates" (p. vii). The Association of American Colleges and Universities (AAC&U) in its 2007 report, *College Learning for the New Global Century,* identified intellectual and practical skills, including critical and creative thinking, inquiry and analysis, and written and oral communication as elements of the essential learning outcomes that students should gain across their college experiences. For liberal education and for professional preparation at the collegiate levels, educators must commit to sharpening students' cognitive skills and strengthening their disposition towards critical thinking (AAC&U, 2004). Furthermore, and importantly, the AAC&U report posits that this simply cannot be accomplished by focusing on general education courses alone, but these aims must be woven into majors as well. Their report states, "The majors also have a crucial role to play in fostering rich knowledge, strong intellectual and practical skills, an examined sense of personal and social responsibility, and the ability to integrate and apply knowledge from many different contexts (AAC&U, 2007a, p. 28)."

The AAC&U (2007b) report, in addition to providing a blueprint for action for educational leaders, articulates the importance of students achieving essential learning to improve their own quality of life as citizens and to advance our nation's democracy and economic well being. There is almost universal consensus among faculty that teaching critical thinking is a principal aim of undergraduate education (Bok, 2006), but how do employers and students regard its importance? Peter D. Hart Research Associates (2006) were commissioned by the AAC&U to conduct focus groups and a national survey of employers and recent college graduates to determine whether they support increased emphasis on the essential learning outcomes posited by AAC&U. When both employers and recent college graduates were asked which among the sixteen essential learning outcomes colleges and universities should place more emphasis on, they agreed on four of the top five: (a) concepts and new developments in science and technology; (b) the ability to apply knowledge and skills to real-world settings through internships and hands-on experiences; (c) the ability to effectively communicate orally and in writing; and (d) critical thinking and analytical reasoning skills. Thus, there is overwhelming consensus from multiple constituencies on the importance of higher education enhancing critical thinking and writing competencies among its students.

II.   What is Critical Thinking?

While there is consensus that enhancement of students' critical thinking skills is a primary and important outcome of undergraduate education, there is less consensus about what exactly constitutes critical thinking. Is it best conceived and taught as a generic skill or as a discipline specific skill? Do students' dispositions influence their ability to develop into critical thinkers? Answering such questions and deriving a consensus of what constitutes critical thinking has implications for both the implementation and success of our Quality Enhancement Plan (QEP).

Critical thinking has been variably defined over the past 80 years. Listed below are several definitions of critical thinking in the literature:

> "active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusions to which it tends" (Dewey, 1933, p. 118).

> "that mode of thinking – about any subject, content, or problem, - in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it" (Paul & Elder, 2007, p. 2).

> "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual methodological, criteriological, or contextual consideration upon which that judgment is based" (Facione, 2006, p. 21).

> "is analytical and strategic, linking knowledge bases to practice strategies" (Price, 2004, p. 47).

Despite the range of definitions that have emerged over time, there is consensus that critical thinking is an active process that goes beyond basic acquisition and memorization of information to the ability to recognize and rationally consider multiple concepts or elements that constitute a body of thought (University of Maryland, 2006, p. 5; Jones, Hoffman, Moore, Ratcliff, Tibbetts, & Click, 1995). When one considers Bloom's (1956) taxonomy of intellectual behavior important to learning, the higher levels of thinking (analysis, synthesis, and evaluation) are most often identified as critical thinking, whereas lower levels of thinking (knowledge, understanding, and application) are not. From a recent report on the national assessment of college student learning, there appears to be consensus definition of critical thinking emerging from surveys of college/university faculty, employers and policy makers representative of the U.S. – that it includes interpretation, analysis, evaluation, inference, presenting arguments, reflection, and dispositions (Jones, et al., 1995).

In several reviews of the research (Moore, 2004; Phillips & Bond, 2004) the differences between two conceptualizations of critical thinking as a generic skill (Ennis, 1962, 1989) or as an embedded skill (McPeck, 1990) have been discussed. Both philosophy and cognitive psychology posit that critical thinking, once practiced, can be applied in a variety of different contexts (Ennis, 1962, 1989; Halpern, 1997). Kurfiss (1988) asserts three aspects of critical thinking: declarative knowledge: the facts and concepts of the discipline or field; procedural knowledge: how to reason, inquire, and present knowledge about the discipline; and metacognition: being able to evaluate the outcomes of the thinking process. From this perspective, critical thinking skills may be taught in a stand-alone course on critical thinking or logic, with the goal of transfer of the use of critical thinking skills to other situations inside and outside the classroom. In other words, building critical thinking skills first will result in improvement in knowledge of the discipline.

Another way to conceptualize critical thinking is as an embedded or knowledge-based skill that is developed within the power of discipline knowledge. Before a person can engage in critical thinking, they must possess an intimate knowledge of the particular discipline; what Kurfiss (1988) refers to as declarative knowledge. In other words – a person has to think critically about a particular thing or subject (McPeck, 1990). As Phillips & Bond (2004) note in their review, the conception of critical thinking as an embedded skill, "is concerned with teaching students how knowledge works in a particular discipline … .It is concerned with developing the competency to participate in the conversation of the discipline" (p. 279). In contrast to the generalists, McPeck (1990) argues: "If you improve the quality of understanding through the disciplines, you will then get a concomitant improvement in the thinking capacity" (p. 21).

This conceptual distinction has resulted in similar controversy over how to best teach critical thinking; is it best taught in courses that focus specifically on it **or** in discipline-based courses that teach critical thinking within a framework using discipline-specific matter (Bers, 2005; Hatcher, 2006)? Research findings suggest that integrating instruction of critical thinking with instruction in a discipline or with writing leads to greater gains in critical thinking than teaching a stand alone course in critical thinking (Chapman, 2001; Gammill, 2006; Girot, 1995; Hatcher, 2006; Kennison, 2006; Miller, 1992). Recommendations from the AAC&U (2007b) suggest that essential learning, including critical thinking and writing, must be infused throughout undergraduate studies. Indeed, imbedding critical thinking in the major or concentration area brings it full circle to the original aims of requiring that undergraduates declare a major. According to Bok (2006, p. 137) requiring a major for undergraduates allowed the acquiring of a substantial body of knowledge about a particular field, learning special techniques to search for information and analyze it, and using the same methods of inquiry to address complex problems.

Other institutions of higher education also have targeted the development of students' critical thinking and writing skills, including several colleges in the southern region of the U.S[1] In

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[1] The following institutions have identified critical thinking and/or writing as a focus of their Quality Enhancement Plan for accreditation purposes: (a) Caldwell Community College & Technical Institute, Hudson, NC: Enhancing

addition, several universities, including several of the Board of Regent's peer and aspirational institutions, have extended efforts to improve student learning outcomes in the areas of critical thinking and/or writing (see Table 1 below).

Table 1. Critical Thinking Initiatives at Peer, Aspirational, and Other Universities

University	Title of Program	Weblink
Proposed Peer Institution		
George Mason University	Critical Thinking Across the Curriculum	http://ctac.gmu.edu/
University of Illinois at Chicago	UIC Learning Goals in General Education	http://www.uic.edu/portfolio/learning/basic.html
University of Louisville	Ideas to Action	http://louisville.edu/ideastoaction/proposal/index.html
University of New Mexico	Integrating Critical Thinking into Health Sciences	http://hsc.unm.edu/library/education/critthink/index.shtml
Wayne State University	Competency Requirements	http://www.bulletins.wayne.edu/GenEd/gened-index.html
University of Cincinnati	General Education Plan	http://www.uc.edu/news/genvote.htm
Proposed Aspirational Institutions	**Title of Program**	**Weblink**
University of California, Los Angeles	Creating a Critical Curriculum Institute	http://www.ues.gseis.ucla.edu/outreach/critical_thinking.php

Writing – Write On!; (b) Cape Fear Community College, Wilmington, NC: Critical Thinking: Lighting the Path to Lifelong Learning;: (c) Guilford College, Greensboro, NC: Enhancing Student Writing through Writing in the Academic Program; (d) Howard College, Big Spring, TX: Critical Thinking…for Learning, for Earning, For Life; (e) Southwest Texas Junior College, Uvalde, TX: Enhancing Critical Reading Skills; (f) Surry Community College, Dobson, NC: Creating a Learning-Centered College Environment by Improving Student Engagement, Critical Thinking, Assessing Student Learning, and Reforming Organizational Culture; (g) Wofford College, Spartanburg, SC: Improving Writing in General Education.

University of Maryland	CORE Program	https://www.irpa.umd.edu/Assessment/AssessmentUM/core_objectives.shtml http://www.cte.umd.edu/teaching/workshops/Spring2006/March13.html
Other Institutions	**Title of Program**	**Weblink**
Eastern Kentucky University	QEP: E^4 Explore, Evaluate, Expand, and Express	http://sacs.eku.edu/qep_report/QEP_Final_Draft.pdf
Florida International University	Information Literacy Initiative	http://www.fiu.edu/~library/ili/ilibroc.html
Loyola University of New Orleans	QEP: Thinking Critically, Acting Justly	http://www.loyno.edu/sacs/qep/documents/FinalQEPLoyolaReport2.3.06_000.pdf
Washington State University	Critical Thinking Project	http://wsuctproject.wsu.edu/ http://www.wsu.edu/StrategicPlanning/provost-strategic-plan.doc
North Carolina State University	QEP: Learning in a Technology-rich Environment	http://www2.acs.ncsu.edu/UPA/auth/compliance/summary/litre_qep.pdf
Texas A&M University	QEP: Inquiry/Research-based Education of Undergraduates	http://qep.tamu.edu/
University of Alabama	QEP: Enhancing Active and Collaborative Learning in First Year Courses	http://sacs.ua.edu/qep.html
University of Alabama Birmingham	QEP: Shared Vision	http://main.uab.edu/Sites/DOE/QEP/
University of Houston	QEP: Transforming the Undergraduate Experience through Research	http://www.uh.edu/~qepsite/qep_completedraft.pdf
University of North Carolina Chapel Hill	QEP: Making Critical Connections	http://www.unc.edu/inst_res/SACS/files/pdf/QEP_Executive_summary.pdf

III.   Why Critical Thinking Through Writing in the Major: Institutional Context of Georgia State University

Established in 1913, Georgia State University is located in the heart of downtown Atlanta. It offers 54 undergraduate degree programs,[2] with 250 fields of study offered through six colleges. In fall 2007 a total of 27,137 students were enrolled; undergraduates comprised 73% of the total student population. Our student body is diverse; over 40% are minority and 61% are women. Throughout its history, Georgia State University has provided educational opportunities for both traditional and nontraditional students. It is an institution with strong disciplinary-based departments, a wide array of problem-oriented interdisciplinary programs, and professional degree programs in business, education, law and health. Its University Senate, comprised of faculty, administrators, staff, and students plays a large role in governance.

In the past several years the university has moved in several strategic directions to enhance its educational mission, particularly at the baccalaureate degree level. It has raised academic standards by implementing more rigorous admission requirements, as well as expanding the University Honors Program and increasing emphasis on undergraduate research, culminating in an undergraduate research day. In addition, the University has embraced targeted interventions to increase student retention, progression, and graduation, including Freshmen Learning Communities (FLC), Supplemental Instruction (SI), and Writing Across the Curriculum (WAC).

Furthermore, in line with its Master Plan, the University over the next ten years will steadily grow its freshmen enrollment and expand the number of undergraduate students residing on campus. This presents both challenges and opportunities for the university. The main challenge will be devising ways, both inside and outside the classroom, to more fully engage our students in academic life. Our QEP, Critical Thinking through Writing, which enhances critical thinking and writing will help us in accomplishing that goal.

Georgia State University is committed to providing a learning-centered and enriching educational environment in which faculty take responsibility for the degree to which students learn (Huba & Freed, 2000). As reflected in our Mission Statement, our goal as an urban research university is to: "provide access to quality education for diverse groups of students, to educate leaders for the State of Georgia and the nation, and to prepare citizens for lifelong learning in a global society" (http://www.gsu.edu/24676.html).

In an effort to meet this important university goal, Georgia State encourages discussion and planning throughout the university, from the University Senate to the Provost's office, from student forums to campus-wide programs, to foster a student-centered rich campus. Specifically,

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[2] See Appendix A for list of baccalaureate degree offerings as of fall 2007.

faculty members embrace our mission through development of varied and research-based strategies and programs to improve student learning and to provide students with the intellectual experiences that will help them succeed during and beyond their years as a GSU student. When asked to identify the most important goals they have for students who graduate from Georgia State University, faculty respond resoundingly - thinking and writing skills that are demonstrated in their major discipline/field.

The importance of critical thinking and writing is, and has been clearly, a priority as noted in our Strategic Plan 2005-2010:

> Georgia State University's curricular and co-curricular activities must prepare students to be **critical thinkers**, **creative problem solvers**, and responsible citizens who make ethical choices. Students must be able to **present their thoughts cogently** both orally and **in writing**, develop leadership skills, and work well in teams. They should be literate in science, technology, culture, and information. Georgia State must also ensure that students are able **to analyze and evaluate important trends in disciplines, comprehend their place in the world and how the world is changing, understand the interconnectedness of knowledge,** recognize that there is a blurring of boundaries among disciplines and among nations, and cope with the dynamics of change (p. 15-16). http://www2.gsu.edu/~wwwact/pdf_plan_archive/2005_strategicplan.pdf

A. Historical Emphasis on the Importance of Writing and Critical Thinking

For nearly forty years Georgia State University has demonstrated student-centered learning initiatives concerned with writing and learning. Programs like the Writing Studio, Supplemental Instruction (SI), and Writing Across the Curriculum (WAC) are just a few of the university-wide projects that represent our focus on student learning. Faculty who seek to improve their effectiveness in the classroom also have been assisted through the Center for Teaching and Learning (CTL). A brief description of the development of these programs is provided, as our decision to focus on writing, as the conduit for expression of critical thinking, emerges from our longstanding grassroots commitment to these programs and the contributions they have made to the university commons. Further, the experience and strength of these programs forms the basic infrastructure upon which the QEP will be built.

> Writing Across the Curriculum (WAC) WAC describes a broad-based set of pedagogical practices grounded in the premise that writing plays an indispensable role in learning. WAC approaches to learning can invigorate both learning and teaching. Ultimately, WAC, at GSU and elsewhere, aims to increase literacy and intellectual capacity across the board, improving the value of college education. Since its establishment in 1995, WAC has made remarkable strides in helping to improve the quality of the curriculum. Its greatest accomplishment has been the development of faculty awareness of the role writing can play in teaching, and how well designed writing tasks can serve as a powerful tool for learning. WAC has served to advance the development of Writing Intensive courses, whose key

features include substantial amounts of writing (at least 40% of the course grade) and revision and frequent feedback on writing. It has also developed an online writing environment that facilitates the exchange of ideas in writing and captures the assessment of those ideas using departmental rubrics.

As of 2007, 133 faculty members have been trained in WAC theory and methodology in summer workshops. In addition to using this training to design and teach WI courses, WAC-trained faculty have shared their knowledge of WAC pedagogy and theory with other faculty and with graduate students in their home departments through committee meetings, teaching colloquia, faculty presentations, and in other settings. To date, 103 graduate students and 5 advanced undergraduates have been trained and supported (most for multiple semesters) as Writing Consultants for WAC courses. WAC training and experience for graduate students has provided an additional means (and often the only means) by which graduate students from across the university can acquire not only invaluable experience in college teaching, but also training in the theory and pedagogy of writing intensive instruction. They carry this training and experience into their post-graduate academic and professional careers. A total of 133 course sections (excluding Composition) using WAC methodology have been developed and offered to date by faculty members in thirty departments. Beyond WAC-sponsored WI courses, WAC-trained faculty have integrated WAC methodology into other courses.

Writing Studio The mission of the Georgia State Writing Studio is to enhance undergraduate and graduate student writing by encouraging all writers to participate in regular conversation about the writing process and their academic work. The Studio creates an ideal learning environment for practicing personal expression, persuasion, and critical thinking, all of which are vital to succeeding in the arts of academic and professional writing and communication. It serves to support a community where writers, readers, and teachers all learn from each other. It enhances writing instruction in academic classrooms by pairing writers with an experienced reader, who engages the writers in conversation about their writing assignments and ideas and familiarizes them with audience expectations and academic genre conventions. It focuses on the rhetorical aspects of the text and provides one-on-one, student-centered teaching on works in progress.

Supplemental Instruction Supplemental Instruction (SI) is an academic support program currently sponsored by the Office of Undergraduate Studies at Georgia State University. It began as a grant-based initiative sponsored through the former Learning Support Program to support students in high-risk courses for which the grades of D, F, or withdrawal rates were high, such as math, biology, and political science. Its Director is certified in SI. Over the last ten years, the SI program has offered free, out-of-class, study sessions and small group tutoring, including writing assistance, for traditionally difficult courses. SI sessions are led by students who have successfully completed the target course and have been

trained to lead. SI Leaders share strategies for studying successfully and for understanding course content. These SI Leaders attend the courses and are available outside of class time, typically three hours per week, to review and to help currently enrolled students organize the material presented.

Although student attendance at sessions is voluntary, the success of this student learning focused initiative is evidenced by a consistent increase in students' grades and retention. This year the Supplemental Instruction program hired and trained 41 undergraduates and graduate students as SI Leaders to facilitate SI sessions in Biology, Chemistry, Language, Philosophy, and Political Science. These Leaders worked with over 900 undergraduates to help facilitate their learning.

Center for Teaching and Learning The mission of the Center for Teaching and Learning (CTL) is to support and promote high quality educational opportunities within a learning-centered academic culture that addresses the needs of our traditional and non-traditional students. The Center reflects the collective expertise and continued commitment to excellence in teaching by the university faculty. The Center promotes student learning by encouraging and supporting faculty efforts to explore the teaching-learning process. Such explorations include development of instructional skills, reflection on current instructional practices, implementation of teaching innovations, and use of emerging technologies. Further, the Center serves as an advocate for excellent teaching and for the expansion of incentives for the continued improvement of teaching and learning at the University. In collaboration with the colleges of Georgia State University, the Center promotes their existing efforts to develop and expand excellence in teaching and learning.

The Center serves the University by: (a) Functioning as a clearinghouse of information and resources related to the continuing improvement of teaching at GSU; (b) Developing initiatives which encourage on-going faculty commitment to excellence in teaching; (c) Promoting continuing development of a community of scholars interested in teaching-learning excellence; (d) Identifying information and resources that support high-quality teaching, and (e) Coordinating the University's role as a leader in the regional, national, and international network of scholars interested in instructional excellence.

The QEP, Critical Thinking through Writing (CTW), is in part a culmination of many of our previous foci, presented above, but it is also truly a new initiative that has been embraced by every undergraduate major in the university. The primary difference between the CTW and previous efforts to enhance students' critical thinking and writing is that critical thinking and writing are embedded in the courses and curriculum students take in their major field of study, and not as an add-on and not limited to the undergraduate core. Further, assessment of student

learning (what students learn and how students learn it) is an integral part of CTW, whereas it was not for these programs. Finally, enhancement of critical thinking is the primary aim of CTW, with writing serving as the means of expression for thought. With the earlier efforts, enhancement of writing was the primary aim.

B. Strong Commitment to General Education Learning Outcomes in the Core and in the Major

Georgia State University has a strong commitment to enhancing students' general education learning outcomes, both in the undergraduate core and in the major. Our commitment to general education outcomes is broad in that we have expected all degree programs to include and assess general learning outcomes in the major. The end result of a series of policy decisions and accompanying assessment practices, conversations about student learning has shifted from the content of specific courses in the core to an emphasis on teaching and assessing shared responsibilities for general education skills that carry into the major. The content of the core,[3] which is designed to accomplish general education learning outcomes, has rested with the faculty, and has been modified through the University Senate process, most recently in 2007. At the center of these learning outcomes has been the importance of critical thinking and written communication. Indeed, in 1996 in the wake of conversion from a quarter to a semester calendar, the Board of Regents of the University System of Georgia permitted institutions free reign to define institutional options; our faculty chose to place a philosophy course on critical thinking in the core (PHIL 2410). Georgia State University's general education learning outcomes are comprehensive, and address several of the essential learning outcomes for higher education for the 21st century identified by the AAC&U (2007b, p.12) in its report, *College Learning for the New Global Century;* most importantly both emphasize critical thinking and communication.

C. Institutional Commitment to Assessment of Student Learning Outcomes in the Core and Major: Direct and Indirect Measures

1. Direct Assessment of Student Learning Outcomes

Georgia State University has a long history of sustained commitment to assessment of student learning and continuous quality improvement. There are two major avenues through which departments, colleges, and the university as a community engage in assessment and planning for academic programs. Each of these avenues is faculty-driven, with the University Senate's Committee on Academic Programs (CAP)[4], leading

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[3] See Appendix B for the General Education Goals of the University's Core Curriculum.

[4] The duties of CAP include: developing long-range plans for the academic affairs of the University; reviewing and recommending of university policies concerning curricula, new and existing programs, the deactivation and

both. The first is Academic Program Review. Starting in 1993, on a seven-year cycle, each academic department engages in comprehensive academic program review, a three year process encompassing planning, self study, external peer review, internal peer review, action plan development, and action plan commitments. The guidelines for this process were developed by CAP and the process is guided by the Associate Provost for Institutional Effectiveness. In 2009 the University will be initiating its third 7 – year cycle of Academic Program Review. Academic Program Review serves as a summative assessment process, providing the opportunity for programs to demonstrate what has been accomplished, and to review those accomplishments for strategic planning purposes in a way that can be persuasive to students, faculty, administration, and the larger community. Ultimately, summative assessment informs institutional strategic planning and resource allocation through action plan commitments made at the conclusion of the process of Academic Program Review.

Furthermore, starting in 2003, each educational major developed an assessment plan that specified what students must know and do in order to graduate (i.e., student learning outcomes). Since then, on an annual basis, each academic major (both graduate and undergraduate) engages in formative assessment by defining and assessing its program outcomes; more specifically, each major specifies outcomes, links the outcomes to the University's Strategic Plan and institutional priorities, specifies measures for assessing each outcome (including direct measurement of student learning), articulates targets for acceptable performance on the measures, presents findings for each measure, analyzes these findings, and develops action plans for improving student learning based upon this analysis. This information on assessment from AY 2003 to present is available to the University community through their posting on the Center for Teaching and Learning (CTL) homepage. Starting in AY 2005-2006, the University adopted a web-based reporting system developed by the Virginia Commonwealth University, WEAVEonline, which contains each degree program's assessment plans and results. Units undergoing their Academic Program Review must include information from this formative assessment process. For the 2006-2007 assessment cycle, data for all academic degree programs were reported. Through the 2006-2007 assessment cycle, the Director of CTL, in conjunction with the Associate Provost for Institutional Effectiveness, reviewed departmental assessments of student learning outcomes for undergraduate and graduate degree programs and provide feedback to the academic departments for how to improve their assessment practices and reports. Effective fall 2008 a Senior Faculty Associate for

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termination of academic programs, and the core curriculum; assessing academic programs and general education; approving courses having a university-wide designation; advising the Provost and Vice President for Academic Affairs on graduate and undergraduate matters, including the promotion, development, and coordination of graduate and undergraduate education.

Assessment will work with the Associate Provost for Institutional Effectiveness to perform this important function for the University community.

In conjunction with the majors, the University as a community has defined learning outcomes for its core curriculum (courses required at the 1000 and 2000 level for Freshmen and Sophomore undergraduate students). Since April 1999, the systematic assessment of these core or general education learning outcomes has been the responsibility of CAP. Currently, the General Education Assessment Subcommittee, a subcommittee of CAP, is responsible for review and approval of departmental assessment plans, review of the annual reports submitted by each academic department teaching in the core, collation of the annual reports that address the same general education learning outcomes, and reporting the results for each general education learning outcomes annually. Programs that offer undergraduate core required courses are asked to report on one or two core learning outcomes each year, with the goal of assuring coverage of the six general education outcomes.

2. Indirect Assessment of Student Learning

To compliment the use of direct measures of student learning from formative and summative assessment, we rely on indirect assessments of student learning through use of surveys, such as the National Survey of Student Engagement (NSSE), exit surveys of graduating students, and surveys of current undergraduate students and alumni.

a. National Survey of Student Engagement

As an institution, we participate in the NSSE, a national survey administered by Indiana University Center for Postsecondary Research, which collects information from undergraduate freshmen and seniors at four-year colleges and universities across the country to assess the extent to which they engage in a variety of effective educational practices. The NSSE survey is grounded in the proposition that student engagement, the frequency with which students participate in activities that represent effective educational practice, is a meaningful proxy for collegiate quality. To date, Georgia State University has participated in the NSSE every two years starting in 2001, administering the survey to a random sample of freshman and the population of seniors graduating in Spring 2001, 2003, 2005, and 2007.[5] The NSSE has several survey items that specifically ask students about the amount of academic rigor expected and the types of assignments completed. In addition, it asks student about the extent to which their experiences at the institution contributed to their knowledge, skills, and personal development. Discussed later in this plan is how information from the NSSE survey proved invaluable in our selection of critical thinking and writing skills as the focal point of our QEP.

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[5] Beginning in Spring 2008, we will participate in the NSSE every three years to coincide with the University System of Georgia's reporting requirements.

b. Surveys of Recent Graduates

Each semester the University administers a survey to all recipients of its undergraduate and graduate degrees. The survey focuses on learning outcomes, student engagement, academic program satisfaction, and employment status. The survey specifically asks a student to rate his/her competency upon entering and upon graduating, using a one (very weak competency) to five (very strong competency) point scale on thirteen student learning outcomes[6], five of which address critical thinking or writing ability:

- ➢ Ability to integrate new information with past knowledge
- ➢ Organize and interpret data appropriately
- ➢ Ability to set goals, prioritize tasks, and meet deadlines
- ➢ Ability to locate and organize information from multiple sources
- ➢ Ability to write clearly and effectively

c. Undergraduate Student Surveys/Alumni Surveys

Surveys of current students (undergraduate and graduate) and alumni of degree programs are conducted when academic units undergo Academic Program Review. Currently, there are fourteen survey items that respondents are asked to rate. The first set of items asks students to rate using a one (strongly disagree) to five (strongly agree) point scale on how much they agree or disagree with the following statements:

1. Faculty members in the department were interested in the academic development of undergraduate majors.
2. The undergraduate program of study was academically challenging.
3. Faculty in the department were appropriately prepared for their courses.
4. I feel the undergraduate program prepared me for my professional career and/or further study.
5. There was open communication between faculty and undergraduate students about student concerns.
6. Class size was suitable for effective learning.

The second set of items uses a one (poor) to five (excellent) point scale for respondents to rate the quality of the following items:

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[6]The remaining competencies include: apply scientific reasoning in problem-solving; ability to analyze quantitative problems; ability to analyze problems from different points of view; ability to speak clearly and effectively; effectively use technology; work effectively with others; get along with people of other racial/ethnic backgrounds; understanding of values and ethical standards.

1. Academic advisement available in the department.
2. Career advisement available in the department.
3. Availability of faculty to students outside the classroom.
4. Effectiveness of teaching methods used by faculty.
5. Procedures used to evaluate student performance.
6. Frequency of undergraduate major course offerings.
7. Variety of undergraduate major course offerings.
8. Clarity of degree requirements.

IV. Collective Decision Making: Identification and Selection of Critical Thinking through Writing

The process of identifying, selecting, and planning for the implementation of the QEP, Critical Thinking Through Writing (CTW), was guided by several key principles: (1) it must be faculty driven, (2) it must have broad-based support from key internal constituencies, including students, faculty, student support services, and administrators and external constituencies, including alumni, future employers/graduate schools, parents, and potential future students; (3) it must be based on best practices; (4) it must clearly specify who is responsible for various aspects of implementation; and (5) it must have institutional commitment of resources for its implementation and sustainability.

From the outset, responsibility for the development of the QEP has rested with the Associate Provost for Institutional Effectiveness, who also serves as the SACS liaison. In the early phases of its development, a QEP Leadership Committee was formed that consisted of the Associate Provost for Institutional Effectiveness, the Director of the Center for Teaching and Learning, and the Director of Writing across the Curriculum Program. As early as 2004, they began a series of discussions with key constituents (including faculty, staff, students, and administrators). At the center of the discussions was a sharing of each party's knowledge of student learning outcomes in our lower-division undergraduate courses and degree majors, and knowledge gleaned from surveys of our students, including review of the results from undergraduate exit surveys and National Survey of Student Engagement (NSSE).

The QEP Leadership Committee considered the general education learning outcomes as the appropriate starting place because these goals had already been discussed and approved by the University Senate in February, 2004. Also, during the 2004-2005 learning assessment cycle, departments with undergraduate programs had instituted evaluations of their majors' performance on the general education outcomes in their upper division (3000/4000 level) courses. Initially, the QEP Leadership Committee considered the following general education learning outcomes as possible themes for the QEP: written communication, oral communication, critical thinking, and quantitative skills.

In efforts to broaden the discussion, the QEP Leadership Committee, working in conjunction with the General Education Assessment Subcommittee of CAP, prepared a series of questions to be asked to department chairs at their monthly luncheon with the Provost in March 2005. The questions centered on:

> ➢ What are the essential learning outcomes that students need to have mastered prior to entering your degree major?
> ➢ How is essential learning expressed in the various disciplines?
> ➢ Are there other ways we should think about defining our essential learning that would benefit various majors?
> ➢ Is there unique work going on in individual departments that relates to assessing essential learning?
> ➢ What University-wide initiatives would support your students in essential learning?
> ➢ Are there faculty development activities that would be beneficial to your faculty to help assess essential learning?

Over the course of the summer of 2005, the General Education Assessment Subcommittee reviewed the departmental reports on general education learning outcomes and major learning outcomes. Of the 36 departments with undergraduate programs, 32 reported assessing one or more general education learning outcomes in their degree major. Students' written communication skills were assessed by 24 of the 32 programs and critical thinking skills were assessed in 21 of the 32 programs. No other general education learning outcome in the major was assessed by more than half of the programs. Further, interviews conducted with chairs/directors of academic departments at Georgia State University indicated that critical thinking and writing are two of the most important general education learning outcomes in nearly all disciplines. This information indicated that most academic departments already identified writing and critical thinking as areas of focus.[7]

The QEP Leadership Committee's discussions led to a review and analysis of results from other data sources, including the responses of GSU students on the 2005 National Survey of Student Engagement (NSSE) and the Survey of Recent Graduates - Recipients of Undergraduate Degrees (Fall 2005). Georgia State University surveys all students about their perceptions of their level of competence on the university's general education learning outcomes when they entered and graduated. Results of the 2005 Survey of Recent Graduates specifically asked a student to rate his/her competency upon entering and upon graduating, using a one (very weak competency) to five (very strong competency) point scale on thirteen student learning outcomes, five of which address critical thinking or writing ability. The results of this survey are included below in Table 2.

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[7] A review of the 2006-2007 Learning Outcomes Assessments report reinforces the importance of critical thinking and writing in the major as among 47 degree programs; 37 report assessing critical thinking skills and 27 report assessing written or oral communication in the major.

Table 2. Self-Ratings of Competencies at Entry and Exit for Recipients of Undergraduate Degrees in Fall 2005[1]			
Competency	**Time Point**	**Mean**	**Absolute Gain**
Able to locate and organize information from multiple sources	Entry	3.88	
	Exit	4.63	+ .75
Ability to analyze problems from different points of view	Entry	3.84	
	Exit	4.57	+ .73
Apply scientific reasoning in problem solving	Entry	3.62	
	Exit	4.32	+ .70
Ability to analyze quantitative problems	Entry	3.67	
	Exit	4.36	+ .69
Effectively use technology	Entry	3.94	
	Exit	4.60	+ .66
Organize and interpret data appropriately	Entry	3.96	
	Exit	4.57	+ .61
Ability to set goals, prioritize tasks, and meet deadlines	Entry	3.99	
	Exit	4.60	+ .61
Ability to integrate new information with past knowledge	Entry	3.96	
	Exit	4.56	+ .60
Ability to write clearly and effectively	Entry	4.04	
	Exit	4.63	+ .59
Ability to speak clearly and effectively	Entry	4.02	
	Exit	4.57	+ .55
Work effectively with others	Entry	4.11	
	Exit	4.62	+ .51
Understanding of values and ethical standards	Entry	4.33	
	Exit	4.71	+ .38
Get along with people of other racial/ethnic backgrounds	Entry	4.33	
	Exit	4.69	+ .36

[1](1 = very weak to 5 = very strong)

The graduation survey results for fall 2005 showed that for each competency our students rated improvement from entry to exit. Looking at overall raw scores, students rate their quantitative reasoning skills and applying scientific reasoning in problem solving lowest when they entered the University and also lowest when graduating. However, a comparison of the absolute gains reported in their abilities across the two time points yields interesting findings. Students reported their largest gains in their abilities to locate and organize information from multiple sources, ability to analyze problems from different points of view, and to apply scientific reasoning to problem solving. Two additional critical thinking abilities, to organize and interpret data appropriately and to set goals, prioritize tasks, and meet deadlines yielded less modest gains. When one examine writing versus thinking skills, students rated themselves higher in their writing abilities than their critical thinking abilities or quantitative skills at entry and at exit.

Interestingly, when freshmen and senior year students rankings were compared on their abilities with similar items on the National Survey of Student Engagement (NSSE) for 2005 (see Table 3 below), our students' ratings were about the same as students at other research universities, both in the level of the ratings for class levels, as well as the growth over time (from freshman to senior). In sum, ratings of abilities did not differ much between freshmen and seniors. Compared to peer institutions, both our freshmen and senior year students reported significantly lower ratings of the extent to which they acquired work-related knowledge and skills. In addition, results from recent NSSE indicated Georgia State University seniors judged their abilities to engage in critical thinking lower, and reported writing fewer shorter papers, than their Carnegie peers.

Table 3. NSSE 2005 Survey Results: Mean Responses for GSU Freshman and Seniors by Educational and Personal Growth Items		
Responses to the question, extent your experience at this institution contributed to knowledge, skills, and personal development in the following areas (1 = very little, 2 = some, 3= quite, 4 = very much):		
Item	**Class**	**Mean**
Acquiring job or work-related knowledge and skills	Freshman	2.48
	Senior	2.84
Writing clearly and effectively	Freshman	2.98
	Senior	3.03
Thinking critically and analytically	Freshman	3.13
	Senior	3.26
Analyzing quantitative problems	Freshman	2.85
	Senior	2.99
Learning effectively on your own	Freshman	2.80
	Senior	2.94
Solving complex real-world problems	Freshman	2.60
	Senior	2.62

The NSSE also provides information on students' academic and intellectual experiences. Table 4 presents the mean scores for GSU seniors and Carnegie peers on both Written Communication and Critical Thinking. When means differ significantly, they are *italicized and bolded.*

Table 4. NSSE 2005 Survey Results: Mean Responses for GSU Seniors and Doctoral-Extensive Seniors by General Education Outcomes		
Responses to the question, in your experience at your institution during the current school year, how often have you done each of the following? (1 = never, 2 = sometimes, 3= often, 4 = very often):	GSU Mean	Doc-Ext Mean
Written Communication		
Prepared two or more drafts of paper/assignment before turning it in	*2.49[1]*	*2.36*
Number of written papers or reports of 20 pages or more	1.58	1.61
Number of written papers or reports between 5 and 19 pages	2.52	2.59
Number of written papers or reports of fewer than 5 pages	*2.83[2]*	*3.09*
Critical Thinking		
Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	2.76	2.77
Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	3.25	3.22
Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	*3.09[3]*	*2.98*
Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of conclusions	*2.99[4]*	*2.90*
Applying theories of concepts to practical problems or in new situations	3.20	3.15
Worked on a paper or project that required integrating ideas or info from various sources	*3.33[5]*	*3.23*
Put together ideas or concepts from different courses when completing assignments or during class discussions	2.86	2.90

Note:
N = 816; Response rate = 26%.
[1]GSU Mean significantly higher; effect size = 0.13.
[2]GSU Mean significantly lower; effect size = -0.22.
[3]GSU Mean significantly higher; effect size = 0.12.
[4]GSU Mean significantly higher; effect size = 0.11.
[5]GSU Mean significantly higher; effect size = 0.14.

From these results, GSU seniors report engaging in re-writing and re-drafting of assignments before submission and report writing fewer short papers or reports than peers. With regard to critical thinking, our seniors report engaging in more synthesis, integration of ideas, and making judgments about the value of information, but no differences from peers on analysis, application, or integration of knowledge from different courses.

V. Planning for Implementation: Needs Assessment and Feasibility

In early 2006, the Provost's Committee on Academic Affairs[8] discussed the potential benefits and shortcomings of proposing a QEP, which focused on developing critical thinking through writing. As with the General Education Assessment Subcommittee, the Provost's Academic Affairs Committee heartily endorsed this focus. The Director of WAC and Director of the CTL were asked to serve as QEP Coordinators and further develop the QEP.

On February 22 and 23, 2006 at the monthly Provost's lunches with department chairs/school directors, representatives from the General Education Assessment Subcommittee and the Associate Provost for Institutional Effectiveness met with the chairs/directors to assess their concern about student learning in the general education areas. Chairs/directors reviewed NSSE and graduation survey results in the context of their own departmental learning outcomes. They were asked:

- What task(s) represents the core aspect of critical thinking for your majors?
- What resources/expertise does your program/unit have to contribute to the QEP (i.e., resources/expertise in written communication, critical thinking, writing to learn, student facilitators, faculty development, etc.)?
- What resources do you anticipate that you'll need to develop the QEP in your program(s)?
- What suggestions do you have for us (people we might include, strategies/resources to employ, concerns to consider, etc.)?

Chairs/directors were quite supportive of the idea of focusing on developing critical thinking skills and writing skills and listed the types of discipline-related activities that they saw as involving critical thinking (see summary of chairs' feedback in Appendix C). Many noted that faculty in their department were already offering Writing Intensive courses. The greatest areas of need noted by the chairs were in funding for Writing Consultants, trained by WAC, and in faculty development opportunities to prepare faculty to offer critical thinking and writing courses. Throughout March and April of 2006 the two QEP Coordinators met individually with chairs across the university to determine the feasibility of implementing the two-course CTW requirement:

- Do you see requiring majors in your program to take two CTW courses as a positive requirement?
- How would the requirement impact the program of study?
- What resources do you need to implement the program?

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[8] Committee on Academic Affairs includes the Provost, Associate Provost for Institutional Effectiveness, Associate Provost for Academic Programs, Assistant Vice President for Recruitment and Retention, Vice President for Student Affairs, Director of the Writing Across the Curriculum Program, and Director of Center for Teaching and Learning.

Again, the responses were nearly unanimous in supporting the concept. Concerns centered on not having faculty who were skilled in teaching writing and on not having room in the current degree program for additional requirements.

In addition to meeting with chairs, the QEP Coordinators conducted a survey that asked faculty and department chairs to better understand how they viewed critical thinking and writing at Georgia State University. The primary goal was to get a conversation going and to try to understand where faculty stood on the topics. Seventy-seven faculty, including some chairs, responded to the survey that asked three questions: How would you define critical thinking? How would you define writing? What is the relationship between the two?   Table 5 presents a synthesis of the comments gathered from the survey respondents grouped by college and area.

Table 5. Synthesis of GSU Faculty Survey on Critical Thinking and Writing in the Major

College	Critical Thinking	Writing	Relationship
A&S Humanities and Fine Arts	Critical Thinking is the examination, analysis, and assessment of arguments, considering a critical text or issue from a variety of perspectives, assembling evidence for support of an argument, analyzing associations and connections, understanding elements and consequences of material presented, examining several points of view, recognize and produce coherent and logical claims, to question, to solve problems, an openness to possible points of view, and to draw conclusions based on facts and observations.	Writing is effective expression of ideas, clear, accurate, organized and convincing, a cognitive practice that includes drafting, revision, and editing, a form of communication with others and oneself, creating meaning, crafting messages for wider audiences, encoding messages, constructing argument through prose, thesis-driven, thinking on paper.	Intricate relationship between writing and thinking, Critical Thinking is a heuristic for writing, both connect to the importance of reading, recursive relationship – each develops the other, both fix meaning in a permanent state for reflection and review, writing develops Critical Thinking, writing makes thoughts clear to another, writing provides vehicle for reflection of thought.
A&S Social Sciences	Critical Thinking involves looking at several sides of an issue, weighing weak and strong points, logical evaluation of research design and statistics, asking questions, synthesizing material, seeking evidence and applying learned material to new material. It is the purposeful, reasoned, and directed use of cognitive skills.	Writing is expressing ideas coherently, clearly, concisely, and logically with conventional usage.	Critical Thinking in writing allows students to express a more complex set of interlinked ideas and facts, produces a deeper understanding of research methods and statistics, provides place for questioning, are inseparable.
A&S Natural Sciences	Critical Thinking is applying principles, using logic to solve problems, it's about data and examining bits of information, formulating ideas and conclusions based on facts and observations, analyzing data and comparing data.	Writing is communicating information clearly and logically, effectively and coherently.	Writing demonstrates and helps students apply Critical Thinking.
Education	Critical Thinking is analyzing information from multiple perspective, about reasoning, evaluating, and applying ideas and strategies. It is also a meta-cognitive knowing about why, when, and how.	Writing is encoding; it is a symbolic system to communicate, reflect, and revise ideas.	Writing is a catalyst for learning, as it documents process and reflection of analyses and application.
Business	Critical Thinking involves examining issues and defining problems toward logical choices, judgments, and evaluations. It's about analyzing and applying data already known to unique situations.	Writing is communicating ideas, themes, or plans through the written word, as well as explaining quantitative and qualitative analyses in a logical manner so that others can understand.	Writing crystallized and linearizes thinking, can trigger the Critical Thinking process, imposes greater precision on thinking, and helps both writer and reader organize, evaluate, and identify issues of topics and ideas.
Health and Human Sciences	Critical Thinking is ability to consume information, analyze, and apply in logical manner, grasp underlying meanings, question, deduce relevant data, problem solve, and determine solutions/resolutions. It also involves values, ethics, and reasoned analysis of situational context.	Writing is communicating information through clear, logical, organized, and conventional (usage) means; it is expression of ones thought, sometimes formally and other informally.	Thinking is informed by writing; some see these as integrally related while others believe there isn't necessarily a connection; one comments that thinking is the engine; writing is the drive train.

Policy Studies	Critical Thinking is evaluating a question, data, issue, theory, or perspective, and the underlying assumptions, logical deduction/induction, considering relevant parts of an argument or decision.	Writing is the expression of ideas, fact, opinions or perspectives, the process from motivation to conclusion through expression, important medium in society.	Writing clarifies and improves quality of thinking, intricate relationship such that cannot have one without the other, must think critically to know how valid someone's writing is.

In May 2006 the QEP Coordinators reported the results of their meetings with the chairs and survey of faculty members to the Provost and Associate Provost for Institutional Effectiveness. Both confirmed their support for the QEP and the Provost indicated that he would commit resources to fund the needed faculty development and additional training of graduate students to support instruction. In those programs in which graduate students would not be available to serve as writing consultants, the hiring of academic professionals was presented as an option.

In August 2006 the QEP Coordinators presented an overview of the plan to the Deans' Group[9] and the Undergraduate Council, a subcommittee of the University Senate's Committee on Academic Programs. Each of the five colleges played a lead role in coordinating resources and in curriculum design with their respective academic units. On September 5 & 6, 2006 the QEP Coordinators presented an update on the status of the QEP to the department chairs/school directors at monthly Provost's luncheons and discussed the idea of insuring its sustainability and importance through crafting a University Senate motion instituting a University-wide graduation requirement for all baccalaureate students to complete two critical thinking through writing courses prior to graduation. At the end of September 2006 the idea of focusing the QEP on critical thinking and writing was presented to the Committee on Academic Programs (CAP), and in conjunction with the University Senate's Committee on Admissions and Standards, both began to foster dialogue and generate consensus for the content of the Senate motion.

In order to gain input from students, the QEP Coordinators met with the Student Government Association (SGA) in October of 2006 and explained the concept of critical thinking through writing courses. The concept of the critical thinking through writing was endorsed by the SGA and sixteen undergraduate students offered to work with the QEP coordinators to provide a student perspective. Subsequent attempts to involve the sixteen students have been unsuccessful.[10]

Prior to moving forward with the graduation requirement, it was necessary to determine if it was feasible. In order to assist with that determination, college deans, department chairs, and school directors were asked to assess the resources they would need to implement the proposed QEP. This assessment required that departments determine how they planned to implement the QEP. Basically, they had to answer the following questions: What is the expected enrollment in CTW courses? At what stage of the degree program would the two CTW courses be required? Would the QEP result in a change in class size? Would it require a curriculum change? Would it require new resources? How many and which faculty would be instructors in CTW courses? This

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[9] Dean's Group is comprised of the six college deans, the dean of the University Library, the Associate Provost for Institutional Effectiveness, Associate Provost for Academic Programs, the Vice President for Research, Associate Provost for Information Systems & Technology/Chief Information Officer, and Director of the University Honors Program.

[10] Direct involvement of students at this stage of the QEP had been limited in large part because the CTW will not directly affect the current student population. The QEP Leadership Team plans to meet with students at a Town Hall Meeting arranged by the Student Government Association in February 2008 and plan to recruit a student to serve on the QEP Leadership Team.

information was forwarded by department chairs to their respective college deans (or associate deans) for further discussion. The Associate Provost for Institutional Effectiveness then met with a representative selected by the dean of each college and reviewed their preliminary plans and resource needs. In the case of the College of Education, in which only two units offer undergraduate degrees, the Associate Provost for Institutional Effectiveness met directly with the chairs. This information was then incorporated into a preliminary QEP budget. After this initial assessment, it was the decision of the QEP Coordinators, in consultation with the Associate Provost for Institutional Effectiveness and Provost, that the proposal to implement two critical thinking though writing courses into the undergraduate degree programs in five colleges was feasible.

Throughout fall 2006 the QEP Coordinators worked with a joint committee of the University Senate's Committee on Admission and Standards and the University Senate's Committee on Academic Programs to draft a joint proposal effective Fall 2009 to establish a university-wide graduation requirement for all students seeking a baccalaureate degree that they be required to pass two critical thinking through writing (CTW) courses in their major. This motion (see below) was approved by the University Senate in April 2007.

**Motion to Add A University-Level
Critical Thinking Through Writing Requirement
to the Graduation Requirements**

**Approved by the Committee on Academic Programs and
Admissions & Standards, March 20, 2007 and by the University Senate, April 19, 2007**

Motion:

      Effective for students entering Fall 09 and thereafter, all students who seek a baccalaureate degree are required to pass two critical thinking through writing (CTW) courses in their major.[1] Implementation of this motion is contingent upon allocation of necessary resources by FACP.

      CTW courses will be proposed by Departments and approved by the General Education (Gen Ed) Subcommittee of the Committee on Academic Programs (CAP). If they wish, colleges/schools may require that proposals be approved at the college level before going forward to the Gen Ed Subcommittee. In their proposal to the Gen Ed Subcommittee, Departments must include a written justification that outlines how each CTW course will use writing to help students achieve Georgia State's learning outcome of improving the discipline-appropriate critical thinking skills of their students.

      A CTW course meets the following requirements:

      1. It has at least three credit hours.

      2. It contains assignments that focus on critical thinking as demonstrated through writing.[2] These assignments together should constitute a substantial percentage of the course grade.

      3. It has a maximum of a 25/1 student/instructor ratio. Should a CTW class have more than 25 students, the instructor will receive assistance. If a CTW class enrolls 51-75 students, the assistance of two people would be needed, and so forth.[3]

      4. It is taught by a CTW-trained instructor.[4]

    [1] For purposes of this motion, "courses in the major" refers to those courses that students use to fulfill the requirements of Areas G, H, and K of a particular major. All majors must have at least two CTW courses in Areas

G, H, or K approved for the 2009-2010 Catalog.

[2] For purposes of this motion, "assignments that focus on critical thinking as demonstrated through writing" are assignments that use writing to help students develop the "wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, and evaluate arguments and truth claims; to discover and overcome personal prejudices; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do." (Bassham, Irwin, Nardone & Wallace, *Critical Thinking: A Student's Introduction* (McGraw-Hill, 2005) page 1.) Typically, students will have the opportunity to revise at least one assignment during the semester.

[3] This ratio may be accomplished by various means. Variations include but are not limited to: capping CTW sections at 25 (the ideal), assigning trained CTW graduate student(s) to sections with more than 25 students, and having department or college CTW staff consultant(s) work with sections over 25 students. In some cases, it may be appropriate for the instructors of CTW courses capped at 25 to have assistance. In these cases, Departments and colleges may petition the Gen Ed Subcommittee and the Provost for additional funding.

[4] CTW training will be available to faculty, graduate students, and staff who are working in CTW courses. Departments must use university-wide CTW training or alternative training approved by the Gen Ed Subcommittee.

Rationale:

The goal of this graduation requirement is to increase GSU students' performance on two of the University's most important general education learning outcomes—critical thinking and written communication. The strategy for achieving this goal is to implement a university-wide two-course CTW graduation requirement. While the specific design of these courses is a departmental matter, each CTW course would present students with engaging assignments and activities based on issues, problems, and applications within the discipline and approach these through multiple writing activities that focus on critical thinking. Each department's implementation of the program will require instituting a two course CTW requirement for graduation, adopting and gaining approval for the necessary curricular revisions, allowing for the training of the faculty members involved, and providing the additional personnel necessary to offer frequent instructional feedback to students.

As evidence of the high priority of this initiative, the University has decided to make CTW its Quality Enhancement Plan (QEP) as required for accreditation by the Southern Association of Colleges and Schools (SACS). Georgia State has a fair amount of flexibility when it comes to choosing the focus of our QEP. This motion represents a decision that the focus of our QEP will be on improving the critical thinking skills of our students as exhibited through their writing. Both critical thinking and writing are among Georgia State's general education learning outcomes.

Implementing this new graduation requirement will require resources. In addition to adopting this motion and making the necessary curricular revisions, implementation will require a faculty training program and the additional personnel necessary to offer CTW courses on the 25/1 model. Passing this motion commits Georgia State to provide the necessary resources. Funding for implementation of the QEP will be provided by the Provost Office.

The CTW program will be assessed through the existing assessment process.

VI. The Senate Motion: How It Highlights Best Practices

Being able to think about what one is learning while interpreting and making relations is an important part of the learning process (Paul, 2005). Research suggests, however, that while faculty support the development of critical thinking skills and acknowledge their importance, they are infrequently taught how to define critical thinking or how to facilitate development of critical thinking skills in the classroom (Bailin, Case, Coombs, & Daniels, 1999b; Paul, Elder, and Bartell, 1997).

Browne and Freeman (2000) identify attributes of the critical thinking classroom to include: frequent asking of questions, participation and engagement with the materials; provide learners with opportunities to practice and experiment with critical thought; using controversy or disagreements as a way to foster evaluative behavior. Similarly, Garside (1996) identified specific classroom activities and teaching methods that promote critical thinking – active student participation, meaningful interaction, and opportunities for students to challenge and question. Astin (1993) and Tsui (1999) found that students' self-assessed growth in critical thinking was positively related to certain instructional features, such as having writing critiqued by an instructor, conducting independent research, working on a group project, giving a class presentation, and taking essay exams. In a later study, Tsui (2000) found that critical thinking of students is enhanced when writing and re-writing of assignments is encouraged, and classroom environments that foster such skills result in students viewing themselves as active contributors to the learning process. Student engagement is linked positively to desirable learning outcomes such as critical thinking and grades (Carini, Kuh, and Klein, 2006).

Based upon a review of the available literature, there appears to be consensus as to what constitutes best practices for teaching and assessing critical thinking in higher education. First, critical thinking should be infused in all courses (Halpern, 1998; Paul & Nosich, 1993). Second, critical thinking is best achieved in learning environments that: promote active learning through frequent questions, encourage students to challenge their current conception of knowledge, and support interaction with other students (Browne & Freeman, 2000). Third, instruction should take a skills-based approach - targeting specific abilities students should practice and master (Bigge & Shermis, 1992; Halx & Reybold, 2005; Halpern, 1998; Mayer, 1992; Meyers, 1987). Fourth, institutions should develop an institution-specific definition of critical thinking, articulated as a student learning outcome, linked to assessment processes that will provide useful feedback to students, faculty, and administrators (Halpern, 1998; 2001). The motion passed by Georgia State University's Senate contains language that supports all of these best practices, and has several additional components that help assure transformative change and a positive impact on student learning.

First, the language of the motion assures that CTW is faculty driven and imbedded in coursework in the major. The specific CTW courses are developed by the department faculty, reviewed and approved by the University's General Education Assessment Subcommittee. While the motion

specifies the identification of two courses to be designated as Critical Thinking through Writing, with transparency in the specific elements that constitute critical thinking through writing in each course, we have no doubt that such critical thinking is and will be further fostered in other courses throughout the majors. We have plans to collect and assess evidence to determine if this diffusion occurs.

Second, by adopting a University-wide definition as a guide, we assure that all faculty members are aware of the various elements that constitute critical thinking in its broadest sense and assure consistency in what skills are identified as critical thinking. This definition is meant as a broad outline within which department can develop understandings of critical thinking appropriate to their disciplines or fields.

Third, by establishing expectations that the courses will have a small student-to-instructor ratio of 25:1, that students will be provided with the opportunity to revise assignments, and that instructors will be trained to teach critical thinking through writing, the motion sets the stage for the university to promote classroom environments and provide avenues for faculty development that will assure student engagement and enhanced learning.

Fourth, it reinforces the importance of assessment of student learning (and assessment for learning) and permits this to be mainly accomplished through existing assessment procedures, with which faculty members and administrators are familiar and which served us well in the past. This direct assessment of student learning will be supplemented with additional surveys of, and focus groups with, students and graduates of our baccalaureate degree programs.

Finally, it assures long-term institutional support for the initiative by making it a graduation requirement of all baccalaureate[11] students, anchoring it within the context of SACS accreditation, and documenting that both the Fiscal Advisory Committee to the President[12] and the Provost's office will assure adequate resources for its implementation and assessment.

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[11] Because the focus is on undergraduate education, the College of Law is not impacted by this initiative.

[12] The Fiscal Advisory Committee to the President is comprised of the Provost, Vice President for Finance and Administration, one additional Vice President, two college deans, chair of the University Senate's Budget Committee, chair of the University Senate's Planning and Development Committee, two University Senators, chair of the Staff Council, and President of the Student government Association. It provides the forum for developing university-wide recommendations on the university budget and recommendations regarding final budget allocations or changes in allocations. Recommendations from this committee to the President will be based on university strategic plan, state-level revenue projections, college and division budget recommendations, Senate Budget Committee recommendations, and input from various university constituencies.

VII. Collective Action: Implementation of CTW

A. Training Guidelines

Upon approval of the graduation requirement, the Associate Provost for Institutional Effectiveness constituted a five member QEP Leadership Team, comprised of the two original QEP Coordinators (Director of the Writing Across the Curriculum Program and Director of the Center for Teaching and Learning), the Chair of the General Education Assessment Subcommittee (the entity assigned responsibility for approval of departmental CTW plans and approval of CTW training for instructors), and the Chair of the Department of Philosophy, who also serves as the Chair of the University Senate Committee on Admissions and Standards.

In July 2007 a joint committee of the University's Senate Committee on Admissions and Standards and the Committee on Academic Programs approved Training Guidelines for the Critical Thinking through Writing Program (see below). As stipulated in the training guidelines, plans for implementation of CTW are to be lead by the Associate Provost for Institutional Effectiveness, with faculty input and guidance through CTW Coordinators and CTW Ambassadors.

TRAINING GUIDELINES FOR THE CRITICAL THINKING THROUGH WRITING (CTW) PROGRAM

*Approved by the Joint CTW Subcommittee of the Committee on Academic Programs
and Admissions & Standards, July 2007*

According to the motion approved by the University Senate (5/19/07) establishing a Critical Thinking Through Writing graduation requirement for all undergraduate students: "CTW training will be available to faculty, graduate students, and staff who are working in CTW courses. Departments must use university-wide CTW training or alternative training approved by the Gen Ed Subcommittee. "

The present document establishes general guidelines for university-wide CTW training. Departments that wish to opt out of university-wide training must propose, in writing, an alternate CTW training plan and receive approval for the plan from the Gen Ed Subcommittee (a subcommittee of the University Senate's Committee on Academic Programs).

a. CTW Ambassadors

Each department (or, when appropriate, major) will identify one or more faculty member(s) to serve as its CTW Ambassador(s). All Ambassadors will go through University-level CTW training. These Ambassadors will then be responsible for the training of those faculty members within their respective areas who are to teach CTW courses. These Ambassadors also will serve as general liaisons between the CTW program and their departmental faculties. They will provide information and ideas to their departmental faculties about CTW, and they will provide feedback to the University about the practice of CTW within their home departments/majors. Ambassadors will be compensated for their service.

b. Ambassador training

Each year, CTW Ambassadors will be required to attend a training workshop. In this workshop, general concepts of critical thinking through writing will be explored, as well as specific techniques and practices for enhancing student learning and assessing student outcomes with regard to critical thinking through writing. Annual training workshops will be offered in each of approximately three broad disciplinary areas to allow for the efficient sharing of like approaches and practices among Ambassadors. This will also allow training sessions to be limited to 15 or so participants each. All training sessions will cover the basic issues of critical thinking through writing, and attendance at any one of the sessions will satisfy the annual training requirement for CTW Ambassadors.

Training workshops will be coordinated by a team of five faculty members, appointed by the Associate Provost for Institutional Effectiveness in consultation with the deans and chairs. The training team will consist of two faculty members with specific expertise in critical thinking and writing, and three additional faculty members to represent the breadth of disciplines across the university.

c. Training of CTW Faculty at the Departmental/Major level

Each Ambassador will be responsible for coordinating CTW training for those faculty members within his or her home department/major who will teach CTW courses. While the nature and extent of such training will differ by discipline, each department/major will develop a plan that maps out the general parameters of CTW training for its faculty. This departmental/major plan must be submitted alongside proposals for CTW courses to the Gen Ed Assessment Subcommittee of the University Senate and must be approved by the subcommittee. All faculty members who teach CTW courses within the department/major must undergo training in conformity with the approved departmental/major plan.

The Training Guidelines outline the roles and responsibilities of several key entities in the implementation of CTW. First, successful implementation will be assisted by the members of the General Education Assessment Subcommittee of CAP; this sub-committee has representatives from all constituents of the university - students, faculty, department chairs, and administrators. Their charge is to continue to assist with the implementation of CTW, including approval of departmental implementation plans, approval of CTW training of department instructors, as well as review of assessment reports prepared by departments and re-design of the elements of a department's CTW implementation plan based on what is learned from feedback and assessment reports.

The Training Guidelines describe a "train the trainer model" that requires each departmental major to identify one or more faculty members to serve as its CTW Ambassador(s). All CTW Ambassadors are required to complete University-level CTW training; serve as liaisons between their departments and CTW by preparing instructors to engage students in CTW courses and providing feedback to the University about the practice of CTW in their majors. Ambassadors are to be compensated for their services. Training of CTW Ambassadors and preparation of instructors for CTW courses is an on-going process, and CTW Ambassadors are required to attend workshops annually. A departmental plan for the training/preparation of CTW instructors within degree majors must be submitted alongside the proposals for CTW-designated courses to the General Education Assessment Subcommittee. Any instructor who teaches a CTW course within a department/major must undergo training that conforms to that approved in the departmental plan.

According to the Training Guidelines, CTW-Training workshops are to be coordinated by a team of five faulty members, appointed by the Associate Provost for Institutional Effectiveness, in consultation with college deans and department chairs/school directors. At least two faculty members who serve as CTW Coordinators must have specific expertise in critical thinking and writing and the reminder should represent the breadth of disciplines across the university. On July 27, 2007 the five CTW Coordinators were approved (see Appendix D for names and departmental and college affiliations).

B. Preparing Faculty and Students: Enhancing and Assessing Student Learning

Results of the needs assessment indicated that to implement CTW, academic programs need assistance in re-designing courses that they have designated as CTW. CTW Ambassadors are offered comprehensive faculty development to help the Ambassadors prepare their department faculty to teach and assess critical thinking through writing. Departments may opt out of this centralized training of CTW Ambassador; however, their plan to prepare their Ambassadors must be approved by the General Education Assessment Subcommittee.

In the early stages of our planning, the Writing Across the Curriculum (WAC) Program developed a draft curriculum for a CTW workshop to prepare faculty and piloted this curriculum

in the spring and summer of 2007. A total of 64 faculty members attended the CTW training sessions. As discussed earlier, while distinct initiatives, there is overlap in the goals and methodologies employed in preparing faculty to engage in both WAC and in CTW. Indeed, the presence of both initiatives should be viewed as complimentary, not identical or competing. Both initiatives are concerned with faculty development and improvement of student thinking through writing, but writing intensive courses, unlike CTW courses, make no demands regarding assessment of student learning, may require more writing (40% of the final grade must be determined through written assignments), and are voluntary for departments to adopt.

Given the experience and knowledge that WAC brings, it will continue to play a key role in the professional development of faculty and the preparation of graduate students to serve as CTW Consultants. The Director of WAC serves as one of the CTW Coordinators and on the QEP Leadership Team. As the implementation unfolds, WAC will likely be a key resource and knowledge base for CTW Ambassadors in the training of their department faculty and in the training of CTW consultants for sections of CTW courses that exceed 25 students. Many faculty members currently use the WAC Online Writing Environment and find it to be useful in their teaching and assessment of writing. This Online Writing Environment is a method for capturing student thinking and teacher engagement in action using web-based database software and rubrics. Continued development of this system will enable faculty to capture assessment data without interrupting their teaching, thus facilitating curricular assessment and providing evidence of student learning for professors. By using the on-line system, assessment will be imbedded into the course itself. In other words, professors will be able to focus on teaching, and their students will be able to focus on learning, all the while providing assessment data that will help the university understand and improve its processes. The environment also continuously stores data for assessment purposes. Faculty members serving as CTW Ambassadors or as CTW instructors are encouraged to participate in WAC Workshops and may benefit from discussion of writing to learn and writing in the disciplines. Further, if a faculty member chooses, WAC will assist in the development of rubrics for use with CTW course assignments.

It is entirely possible and expected that CTW will fundamentally re-shape the approach that faculty take to their instruction. Nosich (2005) notes two standard approaches taken to teaching critical thinking. The first, he refers to as the "one of many" model that assumes that critical thinking is one of many methods that instructors may use to help students learn. The second approach is to cover as much content as possible and assume critical thinking will occur. Indeed, he argues that a teaching method that stresses memorization of definitions (uncritical acceptance of a set of words) does not support the development of critical thinking skills at all. Instead, he argues that all content needs to be presented through the lens of interpretation and evaluation. Indeed, the manner in which students interact and are introduced to subject specific information is a fundamental part of and plays a vital role in developing critical thinking skills (Pascarelli & Trenzini, 2005). In the struggle to balance content knowledge and enhancing thinking skills, faculty members need to note that the advanced intellectual development that accompanies critical thinking skills will enable graduates to continue to contribute to society after their content knowledge has become out of date or irrelevant (Bernstein, Marx, & Bender, 2004).

In moving forward with the CTW initiative, the following recommendations for building a model professional development program for faculty who are engaged in critical thinking initiatives will serve as a guide (Elder, 2005):

➢ Foster a critical thinking climate by placing critical thinking as the focal point of the institution's mission;
➢ Have administrative support and commitment;
➢ Establish an advisory team comprised of administrators and faculty to guide the process;
➢ Take a long-term approach. A commitment to critical thinking is a commitment to continuous improvement;
➢ Provide on-going faculty and staff development workshops that are interactive and designed with input from those very faculty and staff;
➢ Conduct critical thinking workshops offered by experts;
➢ Create activities and opportunities that foster critical thinking throughout the year, for example, monthly newsletter, a web forum, planned roundtable discussions, foundational seminars;
➢ Link critical thinking to assessment, accreditation, and the college mission.

In anticipation of the adjustments some faculty will need to make to their instructional approaches, we will offer a series of faculty development workshops directed at the CTW Ambassadors who are charged with preparing instructors. Based upon ideas solicited from the CTW Ambassadors, and drawing upon the expertise of the directors and staff of the CTL and WAC, CTW Coordinators will develop at least one workshop per year (and more as needed) for CTW Ambassadors.

During the Fall 2007 the CTW Coordinators conducted two sets of workshops focusing on several practical tasks (i.e., preparing the CTW Ambassadors to work with their department faculty members and submit their department plans using an electronic template). For each degree major offered, the following information was requested in the department plan:

• A description of the CTW implementation plan for the degree major within the department or program, including the name of the CTW Ambassador, the courses designated as CTW, and a definition of critical thinking as it applies to the discipline and as it adheres to the University's definition;
• A description of the plan for assessing CTW in the major, including a plan to gather evidence of critical thinking through writing and to report this information. If a rubric is going to be used, is the rubric course-based or departmentally based? If a rubric will not be used, explain how the evidence of CTW will be gathered, analyzed, and reported.
• For each CTW-designated course proposed, include the following: the major to which the course contributes; course number in catalogue and course title; some sample assignments (2-4, perhaps) from the course that are specifically designed to engage students in critical thinking through writing; a rationale for the sample assignments – how will they demonstrate student learning (critical thinking) in your discipline/field; course syllabus that includes a course description and a CTW designation; rubric(s) or other means of assessment that capture student engagement and learning for the critical thinking through writing aspect of this course.

In the Spring semester of 2008, the CTW Coordinators will conduct a workshop to assist the CTW Ambassadors as they develop their training module/workshop for preparing CTW instructors.[13]

Our students will also need assistance in preparing for the challenges that our efforts to enhance critical thinking through writing will bring. As discussed earlier, the classroom environment may be fundamentally altered by the introduction or expansion of critical thinking and writing in a fully conscious manner. Some students, who have been learners in classroom environments that stress rote memorization and standardized testing, may resist this type of learning as it requires significantly more effort on their part. We plan to work closely with experts in our student support services area (Division of Student Affairs, Office of African American Student Support Services, Office of Civic Engagement, Office of Disability Services, Office of Educational Opportunity and TRIO Programs, and Supplemental Instruction) to develop interventions responsive to student needs. We also plan to collect information from students throughout the implementation process, through both surveys and focus groups.

C. Assessment for Learning

Among its seven Principles of Excellence, AAC&U (2007b, p. 40) cautions against the use of standardized tests in assessing student learning, viewing them as low yield efforts not providing information that can foster significant educational change. Instead, they state: "The right standard for both assessment and accountability at the college level is students' demonstrated ability to apply their learning to complex, unscripted problems in the context of their advanced studies (p. 41)." To be valid, assessment must yield information that is useful in guiding learning (Huba & Freed, 2000). Our assessment of student learning is imbedded in course assignments developed by faculty and reported on by faculty and shared at the department and university level to enhance student learning.

At its core, the assessment of student learning in CTW courses is anchored in the scholarly communities of our university, our discipline and department, our course, and our class. At the University level, we have adopted a shared definition of critical thinking, and we rely on scholarly disciplines to define the content which is used for critical thinking, the genre of critical

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[13] Several ideas for the content of the workshop are being considered. A potential idea, drawn from faculty at Montgomery College, Maryland, is to have CTW Ambassadors discuss the instructional activities that might be used to facilitate student achievement of CTW learning outcomes (Cartwright, Weiner, and Streamer-Veneruso, 2007). In other words, for each CTW learning outcome specified in an assignment, what types of activities might occur in the class that would give students the opportunity to reach that outcome and then practice it to assure mastery. Surry Community College, which identified critical thinking as a key learning outcome for its students in 2002, has offered a series of faculty development workshops on various topics including: Critical Thinking and Preventing Plagiarism, Creating Quality Critical Thinking Assignments, Questioning and the Critical Thinking Classroom, Cooperative and Collaborative Learning in the Critical Thinking classroom, and Using Critical Thinking as a Tool for Teaching Concepts (www.surry.edu/about/ct/faculty/workshops.html).

thinking that is applied, and the nature of the outcomes that are produced, e.g., scientific method, argumentation, thesis-driven research paper, a problem-solving analysis, or reflective practice evaluation.

The following questions guide our assessment at three levels (institution, program, and course):

At the Institutional Level:
- Has GSU been successful in structuring our QEP?
    - Have we established the policies needed to implement CTW?
    - Have we developed and provided the resources needed to implement CTW?
        - Administrative and leadership structure?
        - Timeline for implementing the CTW?
        - Adequate preparation of faculty leaders: CTW Coordinators and CTW Ambassadors?
        - Adequate preparation of CTW instructors, including teaching assistants?
        - Adequate student support?
        - Models for courses and assignments?
        - Models of good practices for assessment?

At the Program Level:
- Has each degree program adopted an acceptable plan for implementing the CTW requirement?
    - Have departments identified the manifestations of critical thinking in their discipline/field?
    - Have departments identified the writing tasks/assignments that would demonstrate critical thinking?
    - Have departments determined how to assess evidence of critical thinking through writing?
    - Have departments planned how to prepare faculty to teach and assess in CTW courses?

- What is the evidence that degree programs are using the assessment results from CTW courses to improve student learning?

- What curriculum changes have occurred in the degree program as a result of CTW courses?

At the Course Level:
- Can our students demonstrate the kinds of critical thinking and writing skills expected by their disciplines/fields?
    - Do agree on what student work represents acceptable critical thinking and acceptable writing?

        o   Can faculty communicate effectively their expectations of these skills to students?

- Are CTW courses improving the level of critical thinking and writing skills?

- Can students recognize and define critical thinking in their majors?

- Do students report skills in critical thinking were enhanced through CTW assignments/courses?

Answering these questions requires information be collected systematically and continually over the process of implementation and operation, with periodic evaluations and reports of our status within and across levels of the university. Thus, in addition to our focus on outcomes, it is also important to assure that our plan is implemented as designed, and to identify if and when elements are implemented poorly or not at all. In other words, it involves engaging in a process evaluation that provides a description of what happens during implementation and operation and identifies and describes modifications in the plan, when and why they occur (Krisberg, 1980).

To assist in this process, a document outlining the policies and procedures related to QEP implementation and operation will be prepared by June 30, 2008. Subsequently, on an annual basis at the end of each academic year, a Status Report on Critical Thinking through Writing will be prepared that describes:

- o All current and effective University-level policies and procedures related to the QEP. This includes Senate motions; roles and responsibilities of key personnel (administrative structure); deadlines established by General Education Assessment Subcommittee for submission of initial (and revised) department plans, and deadlines established by colleges for curriculum review of new and/or revised CTW courses. Modifications to policies and procedures (what, when, and why) will be noted.
- o Resources provided for implementation of CTW. This includes workshops, training sessions, and web resources for faculty and CTW Consultants; student support services and programs; assessment workshops.
- o For each university undergraduate degree program:
  - o A catalog of the CTW courses offered that academic year (course titles, course numbers, and catalog descriptions of approved CTW courses)
  - o Names of CTW Ambassador(s), CTW-trained instructors, and CTW Consultants
  - o Number of approved CTW courses (and sections) offered per semester
  - o CTW assignments
  - o Rubrics used to assess CTW assignments (if employed)

Whereas much of this information can be gathered centrally, some of it will have to be garnered from the CTW Ambassadors in consultation with their CTW instructors. CTW Ambassadors are required to update annually their departmental CTW plans. Based on the template for the original departmental plans, this includes (for each degree major), the following information:

- o   Department/Program Name
- o   Undergraduate Degree Major
- o   Names of CTW Ambassadors
- o   Names of CTW instructors
- o   Names of CTW courses and catalog course descriptions
- o   Degree major's definition of critical thinking through writing (Indicate if this is a modification from previous year and rationale for the change.)
- o   Description of the plan for assessing CTW in your major. (Indicate if and how this has changed from previous year.)
- o   Upload sample syllabi from one section of each CTW course
- o   Describe any modifications made to curriculum (content or sequencing of courses) as a result of CTW

In addition to updating the Department/Degree CTW plans, CTW Ambassadors will be required to participate in an annual development workshop sponsored by the CTW Coordinators and to attend a forum each spring semester, starting spring 2009, to share information about what they are learning from implementation of CTW in their degree programs. Our focus begins narrow at the course assignment level, and hopefully will broaden as our experience grows. Some degree programs will pilot test CTW assignments in fall 2008 and spring 2009, so that we may learn first hand what assignments work well and which do not. Therefore, in spring 2009, our first forum for CTW Ambassadors will be focused on CTW Assignments, with CTW Ambassadors reporting on what they are learning about the various types of CTW assignments piloted in their degree programs.[14]

D. Assessment of Learning: Student Learning Outcomes

The ultimate goal of CTW is to improve student learning, and knowing whether we are accomplishing this goal requires consistent and valid information of student learning outcomes captured at the course-level. To assure this occurs, each baccalaureate degree program effective AY 2009-2010 will be required to report on Critical Thinking through Writing as a separate student learning outcome using WEAVEonline, the assessment management program used by the University.[15]   Faculty may also choose to employ other types of assessment of student learning, such as the on-line writing environment supported by WAC. However, CTW student learning outcomes must be reported using Weave-online. Specific information that will be captured through this reporting system annually includes:

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[14] It is too early to specify the content of future forums, as these will be reflective of the experiences and concerns of our CTW Ambassadors and CTW instructors. Our goal is to learn over time about the kinds of critical thinking students do in various degree programs, how CTW is resonating with our students, how CTW is impacting our curriculum, and how CTW is better preparing our students to be successful in their careers and lives?

[15] Departments that currently identify critical thinking and writing as learning outcomes for their baccalaureate degree programs will be asked to report on those two learning outcomes in AY 2008-2009 Weaveonline assessment cycle so a baseline measure of performance is reported. This baseline is important to document if departments wish to look at the value-added to student learning that results from CTW.

a) academic year
b) department major
c) CTW courses assessed
d) measures for assessing the CTW learning outcomes
e) findings from the measures
f) analysis of the findings
g) an action plan based upon the analysis of findings (description of any changes that need to be made to the course to enhance student learning in the future). In other words, what changes are needed in instruction, assignments, or curriculum to improve CTW student learning outcomes?
h) Discussion of any changes that should be made to future means of assessment of CTW student learning outcomes. In other words, how effective are current assessment methods at measuring CTW? Are additional measures or different measures needed?

The General Education Assessment Subcommittee and Senior Faculty Associate for Assessment, in consultation with the Associate Provost for Institutional Effectiveness will review and report on CTW outcomes. Together, they are responsible for providing feedback to the department/major on how assessment might be improved, as well as preparing an annual report for the University community drawing upon information presented in WEAVEonline.

Supplementing the direct measures of student learning gathered from imbedded assessments in courses will be indirect measures of student learning. In consultation with the CTW instructors and CTW ambassadors, information on student perceptions of CTW will be collected through surveys and/or focus groups.[16] Questions posed to students might include:

❖ Were you aware of the critical thinking through writing (CTW) outcomes in this course? If yes, what were they?
❖ Were there assignments related specifically to critical thinking through writing (CTW) learning outcomes? If yes, what were they?
❖ Were the critical thinking through writing (CTW) outcomes clear and easy to understand? If no, do you know of a way that they could be explained to students to make them clearer or easier to understand?
❖ Were there specific activities that you engaged in during class that helped you enhance your critical thinking through writing (CTW) abilities? If yes, what were they?
❖ If someone asked you what it meant to be a critical thinker in your field/discipline, what would you say?
❖ Did the instructor (or CTW consultant) provide you with feedback on your critical thinking through writing assignments?
    o Did this feedback help you develop into a better critical thinker?
    o Did this feedback help you become a better writer?
    o Did the instructor use a rubric to assess your CTW assignments?

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[16] Collection of this information would in no way be linked to the current Student Evaluations of Instructors (SEI) conducted at the end of each semester.

Furthermore, we will continue to rely on the NSSE Benchmark items for freshmen and seniors discussed earlier, to track our progress. We expect to see increased reporting among seniors in the following NSSE items related to Academic and Intellectual Experiences:

- o Asked questions in class or contributed to class discussions
- o Prepared two or more drafts of a paper or assignment before turning it in
- o Worked on a paper or project that required integrating ideas or information from various sources
- o Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments
- o Put together ideas or concepts from different courses when completing assignments or during class discussions
- o Discussed grades or assignments with an instructor
- o Received prompt feedback from faculty on your academic performance (written or oral)

We expect to see increases in seniors reporting of how much their coursework emphasized:

- o **Analyzing** the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
- o **Synthesizing** and organizing ideas, information, or experiences into new, more complex interpretations and relationships
- o **Making judgments** about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
- o **Applying** theories or concepts to practical problems or in new situations

Given the focus of the CTW Initiative is to encourage feedback on assignments, increases in writing assignments overall are expected:

- o Number of written papers or reports of **20 pages or more**
- o Number of written papers or reports **between 5 and 19 pages**
- o Number of written papers or reports of **fewer than 5 pages**

Many departments/degree majors are reporting that they are using CTW as an opportunity to modify their curriculum and implement capstone courses in their majors, therefore, it is expected that there will be increases in seniors reporting they **plan to participate in a culminating senior experience (capstone course, thesis, project, comprehensive exam)**.

In addition, increases are expected in the educational and personal growth reported by our seniors in the areas of:

- o Acquiring job or work-related knowledge and skills
- o Writing clearly and effectively
- o Thinking critically and analytically
- o Analyzing quantitative problems

o   Learning effectively on your own
o   Solving complex real-world problems

Below is a timeline that displays responsible parties and activities that will occur during implementation of our QEP, Critical Thinking through Writing.

TIMELINE FOR IMPLEMENTATION

<u>**Georgia State University: Critical Thinking Through Writing**</u>		
Year 1 (AY 2007-2008) **Implementing CTW: Preparing Academic Departments**		
Semester	**Responsible Party(ies)**	**Activities**
Fall 2007	QEP Leadership Team & Associate Provost for Institutional Effectiveness (APIE)	**Inform University Community of Critical Thinking through Writing (CTW) Initiative** Articles published in The Villager (staff newspaper) and Georgia State University Alumni Magazine E-mail announcements Create web site for CTW on University's web page (www.gsu.edu/ctw)
11-Sept-07 & 12-Sept-07	QEP Leadership Team, CTW Coordinators, and APIE	**Hold Informational Sessions for Department Chairs** (see Appendix E for Agenda)
21-Sept-07	Department Chairs/School Directors	**Names of CTW Ambassador(s) are forwarded APIE** (see Appendix F for list of CTW Ambassadors for each degree program)
Phase 1: 24-Sept-07 2-Oct-07 12-Oct-07 Phase 2: 5-Nov-07 8-Nov-07 9-Nov-07	QEP Leadership Team, QEP-CTW Coordinators, and APIE	**Implement Train the Trainer Model** Conduct training workshops (Phase 1 and 2) for CTW Ambassadors to prepare them for roles and responsibilities, including submission of department/degree CTW plans (see Appendix G for Agenda of Phase 1 and Phase 2 Workshops)

Year 1 (AY 2007-2008) Implementing CTW: Preparing Academic Departments		
Semester	**Responsible Party(ies)**	**Activities**
Spring 08	APIE, QEP Leadership Team, & University Public Relations Office	**Inform University Community of CTW Initiative** WRAS University radio) announcements Town Hall Meetings with students (February 2008) Open Informational Sessions for University Community Meetings with Student Affairs and Academic Advisement Offices Prepare informational materials for CTW Articles published in The Villager, Georgia State Alumni Magazine, and the Signal (student newspaper)
31-Jan-08	General Education Assessment Subcommittee (GEAC) & CTW Coordinators	**Review Department/Degree CTW plans** CTW plans submitted by department/degree programs are reviewed for approval and feedback provided (as necessary)
29-Feb-08	APIE	**Review Resource Needs with College Deans** Review Resource Needs in Conjunction with Submitted Departmental/Degree CTW Plans
31-Mar-08	GEAC (in consultation with CTW Ambassadors)	**Identify CTW Assignments for Pilot Testing** Identify at least 30 assignments for pilot implementation in Fall 2008
30-April-08	CTW Coordinators, Director of Center for Teaching and Learning, and Director of Writing Across the Curriculum	**Development of Training Module for CTW Instructors**
30-Jun-08	APIE, QEP Leadership Team, in consultation with CTW Coordinators, Ambassadors, and GEAC	**Prepare University Level Status Report on Implementation of QEP**

Year 2 (AY 2008-2009) Finalizing Department Plans for Implementation		
Semester	**Responsible Party(ies)**	**Activities**
Fall 2008	GEAC	**Review and approval of CTW Plans submitted by degree programs**
	APIE & CTW Coordinators	**Hold additional training for CTW Ambassadors**
	CTW Ambassadors	**CTW Ambassadors train CTW Instructors**
	CTW Ambassadors & Instructors	**Continue piloting CTW Assignments:** Identify at least 50 assignments for pilot implementation
Spring 2009	GEAC	**Review revisions of degree CTW Plans**
	APIE, QEP Leadership Team, & University Public Relations Office	**Inform University community of CTW** Develop Brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	CTW Ambassadors & CTW Instructors	**Pilot CTW assignments**
	CTW Ambassadors	**Spring Forum: Share lessons learned from pilot assignments** **Update Department/Degree CTW Plan**: Modifications of assignments, courses, instruction, assessment as *necessary with re-submission to GEAC*
	GEAC/Senior Faculty Associate for Assessment	**Review baseline information on Critical Thinking and Writing student learning outcomes through WEAVEonline**
	APIE, QEP Leadership Team, in consultation with CTW Coordinators, Ambassadors, and GEAC	**Prepare University level status report on implementation of CTW**

Year 3 (AY 2009-2010)		
Semester	**Responsible Party(ies)**	**Activities**
Fall 2009	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are launched in all baccalaureate degree programs
	APIE & CTW Coordinators	**Hold additional training for CTW Ambassadors**
	CTW Ambassadors	**Hold additional training for CTW Instructors**
	CTW Instructors Office of Institutional Research	**Survey or focus groups with students enrolled in CTW courses**
Spring 2010	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	APIE and Office of Institutional Research	**Add additional questions to graduating senior survey regarding CTW**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	CTW Ambassador	**Assure reporting of assessment of CTW learning outcomes using WEAVEonline**
	CTW Ambassadors & CTW Coordinators	**Spring Forum** **Update department/degree CTW Plan as needed**
	APIE, QEP Leadership Team, in consultation with CTW Coordinators, Ambassadors, and GEAC	**Prepare University level status report on implementation of CTW**

Year 4 (AY 2010-2011)		
Semester	**Responsible Party(ies)**	**Activities**
Fall 2010	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	CTW Coordinators	**Hold additional training for CTW Ambassadors**
	CTW Ambassadors	**Hold additional training for CTW Instructors**
Spring 2011	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	QEP Leadership Team & APIE	**Assessment of student learning & impressions of CTW: Exit Surveys of Seniors & NSSE Data**
	CTW Ambassador	**Assures reporting of assessment of CTW learning outcomes using WEAVE Online**
	CTW Ambassador & CTW Coordinators	**Spring Forum**
	APIE, QEP Leadership Team, in consultation with CTW Coordinators, Ambassadors, and GEAC	**Prepare University level status report on implementation of CTW**

Year 5 (AY 2011-2012)		
Semester	**Responsible Party(ies)**	**Activities**
Fall 2011	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	CTW Coordinators	**Additional training for CTW Ambassadors**
	CTW Ambassadors	**Additional training for CTW Instructors**
Spring 2012	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	QEP Leadership Team & APIE	**Assessment of student learning & impressions of CTW: Exit Surveys of Seniors**
	CTW Ambassador	**Assure reporting of assessment of CTW learning outcomes using WEAVEonline**
	CTW Ambassadors & CTW Coordinators	**Spring Forum**
	APIE, QEP Leadership Team, in consultation with CTW Coordinators, Ambassadors, and GEAC	**Prepare University level status report on implementation of CTW**

YEAR 6: (AY 2012-2013)		
Fall 2013	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	CTW Coordinators	**Additional training for CTW Ambassadors**
	CTW Ambassadors	**Additional training for CTW Instructors**
Spring 2014	GEAC	**Review and approval of revisions to CTW Plans submitted by degree programs**
	APIE & QEP Leadership Team & University Public Relations Office	**Inform university community of CTW** Distribute brochure and other materials for CTW Initiative for use with recruitment, orientation, and advisement Continue to use media outlets (WRAS, Signal, Villager, Alumni Magazine
	Department Chair & CTW Ambassador	**CTW graduation requirement is in effect:** CTW courses are offered in all baccalaureate degree programs
	QEP Leadership Team & APIE	**Assessment of student learning & impressions of CTW: Exit Surveys of Seniors & NSSE data**
	CTW Ambassador	**Assures reporting of assessment of CTW learning outcomes using WEAVEonline**
	CTW Ambassadors & CTW Coordinators	**Spring Forum**
	APIE, QEP Leadership Team, in consultation with CTW Coordinators, Ambassadors, and GEAC	**Prepare University level status report on implementation of CTW**

VIII. Collective Commitment and Support: Sustaining CTW

Implementation of the QEP, Critical Thinking through Writing (CTW), will require new funding, the majority of which will go for instructional support: compensation for faculty, lecturers, academic professionals or CTW consultants (graduate students trained to assist in classrooms where instructor to student ratio exceeds 25: 1). As stated earlier, in determining the feasibility of implementation, initial discussions were held with deans and department chairs regarding the impact of the two-course graduation requirement. Department chairs, along with CTW Ambassadors, developed departmental plans that identify the number, names, and placement of the CTW courses within their respective degree majors. These plans were shared with, and approved by the college deans, prior to their submission to the General Education Assessment Subcommittee.

In FY 2007 the University awarded 3,793 baccalaureate degrees. For longer term planning purposes, analysis of the trends in the number of students graduating from each undergraduate degree was undertaken to identify those degree programs with large graduation rates (>100) and large growth rates (>5% from FY 00-07). From this analysis, six majors will likely need continued increases in instructional support over the course of implementation of the QEP: Accounting, Finance, Sociology, Biology, Psychology, and Political Science.

During the planning stages, the responsibility for the QEP has been shared across a number of administrators and faculty members. As we move toward full implementation, the same type of shared responsibility is being proposed. Therefore, the budget includes compensation for faculty who will assist in implementation, assessment, and reporting, including modest stipends for members of the General Education Assessment Subcommittee, CTW Coordinators and CTW Ambassadors. The budget also includes funds for an academic professional to assist with faculty development and training of graduate students to serve as CTW Consultants, using a model similar to the WAC Writing consultants. Finally, there are funds to support faculty development workshops and to supplement existing student support programs over the course of the project.

Budget
Critical Thinking through Writing
Estimated Project Costs[1]

	FY[2] 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	TOTAL
CTW Instruction[3]	0	$302,378	$584,976	$862,689	$1,168,285	$1,352,547	**$4,270,875**
Academic Professional for CTW [4]	0	$65,905	$65,905	$65,905	$65,905	$65,905	**$329,525**
CTW Ambassadors[5]	$137,500	$150,000	$157,500	$165,000	$172,500	$180,000	**$962,500**
CTW Coordinators	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	**$30,000**
GEAC Committee[6]	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	**$180,000**
CTW Ambassador Workshops	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	**$30,000**
CTW Spring Forum	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	**$120,000**
Faculty Development Workshops	$0	$10,000	$10,000	$10,000	$10,000	$10,000	**$50,000**
Student Support	$0	$10,000	$12,000	$12,000	$12,000	$12,000	**$58,000**
Total	**$197,500**	**$498,283**	**$890,381**	**$1,175,594**	**$1,488,690**	**$1,680,452**	**$6,030,900**

[1]Project costs do not reflect total operational costs, but instead include instructional costs for degree programs that must hire additional instructors and/or CTW consultants to assure the ratio of instructor to student does not exceed 25:1.
[2]The fiscal year runs July 1 through June 30.
[3]Additional instructors and CTW Consultants to assure the ratio of instructor to student in CTW courses does not exceed 25:1. Faculty costs include fringe costs calculated @ 24.67% & support costs.
[4]Costs to hire an academic professional to assist with training of CTW Consultants and faculty development. Costs include 30% summer salary and fringe costs calculated at 24.67%.
[5]Increased costs from FY 08 to FY 09 reflect addition of CTW Ambassadors for BIS degree programs; increased costs from FY 09 to FY 10 reflect addition of CTW Ambassadors for high growth majors (Accounting, Finance, Political Science, Psychology Sociology, and Biology); increased costs from FY 12 to FY 13 are estimated costs likely to occur for growth in majors.
[6]Stipends for review of departmental CTW plans and assessment (15 members @ $2,000 per member).

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Appendix A: GSU Baccalaureate Degree Offerings (August 2007)

Georgia State University: Baccalaureate Degree Offerings as of August 2007		
Degree	**Major**	**College**
Bachelor of Arts	AFRICAN AMERICAN STUDIES	Arts & Sciences
Bachelor of Arts	ANTHROPOLOGY	Arts & Sciences
Bachelor of Arts	ART	Arts & Sciences
Bachelor of Arts	FILM & VIDEO	Arts & Sciences
Bachelor of Arts	JOURNALISM	Arts & Sciences
Bachelor of Arts	SPEECH	Arts & Sciences
Bachelor of Arts	ENGLISH	Arts & Sciences
Bachelor of Arts	GEOGRAPHY	Arts & Sciences
Bachelor of Arts	HISTORY	Arts & Sciences
Bachelor of Arts	FRENCH	Arts & Sciences
Bachelor of Arts	GERMAN	Arts & Sciences
Bachelor of Arts	SPANISH	Arts & Sciences
Bachelor of Arts	PHILOSOPHY	Arts & Sciences
Bachelor of Arts	POLITICAL SCIENCE	Arts & Sciences
Bachelor of Arts	PSYCHOLOGY	Arts & Sciences
Bachelor of Arts	RELIGIOUS STUDIES	Arts & Sciences
Bachelor of Arts	SOCIOLOGY	Arts & Sciences
Bachelor of Arts	WOMEN'S STUDIES	Arts & Sciences
Bachelor of Arts	ECONOMICS	Policy Studies
Bachelor of Arts	INTERNATIONAL ECONOMICS & MODERN LANGUAGES	Policy Studies
Bachelor of Business Administration	ACCOUNTING	Business
Bachelor of Business Administration	COMPUTER INFORMATION SYSTEMS	Business
Bachelor of Business Administration	BUSINESS ECONOMICS	Business
Bachelor of Business Administration	FINANCE	Business
Bachelor of Business Administration	HOSPITALITY ADMINISTRATION	Business
Bachelor of Business Administration	MANAGERIAL SCIENCES	Business
Bachelor of Business Administration	MARKETING	Business
Bachelor of Business Administration	REAL ESTATE	Business
Bachelor of Business Administration	ACTUARIAL SCIENCES	Business
Bachelor of Business Administration	RISK MANAGEMENT & INSURANCE	Business BA
Bachelor of Fine Arts	ART EDUCATION	Arts & Sciences
Bachelor of Fine Arts	STUDIO	Arts & Sciences
Bachelor of Interdisciplinary Studies	INTERDISCIPLINARY STUDIES	Arts & Sciences

Georgia State University: Baccalaureate Degree Offerings as of August 2007		
Degree	**Major**	**College**
Bachelor of Music	MUSIC	Arts & Sciences
Bachelor of Science	BIOLOGICAL SCIENCE	Arts & Sciences
Bachelor of Science	CHEMISTRY	Arts & Sciences
Bachelor of Science	COMPUTER SCIENCE	Arts & Sciences
Bachelor of Science	GEOLOGY	Arts & Sciences
Bachelor of Science	MATHEMATICS	Arts & Sciences
Bachelor of Science	MUSIC INDUSTRY MANAGEMENT	Arts & Sciences
Bachelor of Science	PHYSICS	Arts & Sciences
Bachelor of Science	PSYCHOLOGY	Arts & Sciences
Bachelor of Science	EXERCISE SCIENCE	Education
Bachelor of Science	RESPIRATORY THERAPY	Health Sciences
Bachelor of Science	CRIMINAL JUSTICE	Health Sciences
Bachelor of Science	NUTRITION	Health Sciences
Bachelor of Science	NURSING	Health Sciences
Bachelor of Science	ECONOMICS	Policy Studies
Bachelor of Science	PUBLIC POLICY	Policy Studies
Bachelor of Science in Education	EARLY CHILDHOOD EDUCATION	Education
Bachelor of Science in Education	EARLY CHILDHOOD EDUCATION SPECIAL EDUCATION	Education
Bachelor of Science in Education	EARLY CHILDHOOD EDUCATION ESOL	Education
Bachelor of Science in Education	HEALTH AND PHYSICAL EDUCATION	Education
Bachelor of Social Work	SOCIAL WORK	Health Sciences

Appendix B: General Education Goals

General Education Goals Approved by the Undergraduate Council 1/30/04 Approved by the University Senate 2/13/04

Goal I. **Communication**

1. Students communicate effectively using appropriate writing conventions and formats.
2. Students communicate effectively using appropriate oral or signed conventions and formats.

Goal II. **Collaboration**

Students participate effectively in collaborative activities.

Goal III. **Critical Thinking**

1. Students formulate appropriate questions for research.
2. Students effectively collect appropriate evidence.
3. Students appropriately evaluate claims, arguments, evidence and hypotheses.
4. Students use the results of analysis to appropriately construct new arguments and formulate new questions.

Goal IV. **Contemporary Issues**

1. Students effectively analyze contemporary issues within the context of diverse disciplinary perspectives.
2. Students effectively analyze contemporary multicultural, global, and international questions.

Goal V. **Quantitative Skills**

1. Students effectively perform arithmetic operations, as well as reason and draw appropriate conclusions from numerical information.
2. Students effectively translate problem situations into symbolic representations and use those representations to solve problems.

Goal VI. **Technology**

Students effectively use computers and other technology appropriate to the discipline.

Appendix C: Feedback from Chairs

Feedback from Chairs' Luncheons held February 22 & 23, 2006

When asked to **identify tasks that demonstrate critical thinking**, chairs and directors responded:
- Analysis of information without being confused by scientific terminology
- Patient assessment skills
- An ability to think critically and to write clearly and persuasively (identify premises and conclusions in arguments, identify fallacies, avoid fallacies, avoid vagueness and ambiguity, and write in a grammatically correct fashion)
- Assess individual/environment interactions
- (1) Evidence-based evaluations and interpretations, (2) capacity to deconstruct assumptions and decisions regarding human nature, capacity to intersect science, ethics, and actions
- Problem-solving focused on business scenarios; analytical skills based on changing business environments/variables; and reflecting quality standards, ethical standards
- Business case analysis
- Diagnosing and remediating literacy; reflections about practice; aligning professional standards
- Analysis of literary texts, historical, artistic, and civilization/culture
- Case analysis; projects for actual clients

When asked **to identify existing resources**, chairs and directors responded:
- Currently offer a few writing to learn courses
- Some faculty have taken Writing Across the Curriculum Workshops
- Department uses lots of rubrics for both critical thinking and writing
- Faculty are engaged in research and service with this type of assessment
- Expertise in argumentation and analyzing primary sources
- Web servers and developing on-line services for interactive learning
- Computer simulations target critical thinking
- Faculty and graduate students will skills in business case analysis
- Faculty with expertise in composition (in variety of languages)
- Currently use rubrics for writing

When asked to **identify resource needs**, chairs and directors responded:
- Need graduate research assistants and faculty workshops
- Need assistance in developing rubrics specific to discipline
- Need additional funds for graduate research assistants
- Need Writing Consultants

When asked for **suggestions on how to move forward**, chairs and directors responded:
- Allow flexibility in implementation/application so it fits with culture of the unit
- Consider using WebCT Vista as means for implementation
- Concerns about resources being directed to this when my department has more critical needs
- Keep it manageable and realistic – limited to a small number of courses
- Be aware of problems – low faculty morale and lack of participation
- Have discussions with faculty

Appendix D: CTW Coordinators

CTW Coordinators

- ➢ William Bogner, Associate Professor, Department of Managerial Science
- ➢ Oliver Greene, Assistant Professor, School of Music
- ➢ Krista Meinersmann, Clinical Associate Professor and Associate Director of Undergraduate Programs, Byrdine F. Lewis School of Nursing
- ➢ George Pullman, Associate Professor, Department of English and Director of Writing Across the Curriculum Center
- ➢ George Rainbolt, Professor & Chair, Department of Philosophy and Chair of University Senate Committee on Admissions & Standards

Appendix E: CTW Informational Session Agenda

CRITICAL THINKING THROUGH WRITING (CTW)
Informational Session - Agenda
Tuesday, September 11, 2007 from 12:00-1:00 p.m.
Lucerne Suite

I. Welcome and Introductions   Mary Finn, Associate Provost for Institutional Effectiveness

II. How We Got Here   George Rainbolt, Chair - Department of Philosophy
    A. SACS, QEP and Critical Thinking through   Chair of University Senate's Committee on Admissions & Standards and
    Writing Initiative (CTW)   CTW Coordinator

    B. CTW & Writing Across the Curriculum: George Pullman, Associate Professor - Department of English,
    Commonalities and Distinctions   Director of Writing Across the Curriculum, and CTW Coordinator

III. The CTW Requirement   Oliver Greene, Assistant Professor - School of Music and CTW
    Coordinator

IV. Preparation of Faculty for CTW   Krista Meinersmann, Clinical Associate Professor and Associate Director
    of Undergraduate Programs – Byrdine F. Lewis School of Nursing and
    CTW Coordinator

V. Departmental/Majors CTW Plans   Bill Bogner, Associate Professor - Department of Managerial Science
    and CTW Coordinator

VI. Assessment and Reporting   Harry Dangel, Associate Professor, Center for Teaching and Learning
    Mary Finn, Associate Provost for Institutional Effectiveness

VII. General Education Sub-committee   Marti Singer, Associate Professor – Department of English and Director
    of Lower Division Studies and Chair of Senate General Education
    Sub-committee

VIII. Questions & Answers

Appendix F: CTW Ambassadors by Major

Department/Major CTW Ambassadors (A through I)		
Department/Major	**College/School**	**Ambassador**
Accountancy	Business	Jennifer Joe
Actuarial Sciences	Business	Martin Grace
African-American Studies	Arts & Sciences	Jonathan Gayles
Anthropology	Arts & Sciences	Emanuela Guano
Art and Design/BA in Art, BFA in Art Education, BFA in Studio/BIS in Arts Administration	Arts & Sciences	Susan Richmond
Biology	Arts & Sciences	Teresa Poole, Frank Cruz
Business Economics	Policy Studies	Inas Rashad, Shelby Frost
Chemistry	Arts & Sciences	Doyle Barrow
Communication/ BA in Film & Video BA in Journalism BA in Speech BIS in Theatre	Arts & Sciences	Greg Smith Doug Barthlow Jeffrey Bennett Frank Miller
Computer Information Sys	Business	Geoffrey Hubona
Computer Science	Arts & Sciences	Michael Weeks
Criminal Justice	Health & Human Science	Sue Carter Collins
Early Childhood Education/ BSE in ECE, BSE in ECE & SE, BSE in ESOL	Education	Teri Peitso-Holbrook, Caitlin Dooley
Economics/BS in Economics, BA in International Economics & Modern Languages	Policy Studies	Inas Rashad, Shelby Frost
English	Arts & Sciences	Audrey Goodman
Finance	Business	Richard Fendler
Geosciences/ BA in Geography BS in Geology	Arts & Sciences	Katherine Hankins
History	Arts & Sciences	Jared Poley
Hospitality	Business	Debby Cannon
International Business/Business Communications	Business	David Bruce
Kinesiology/ BSE in Exercise Science BSE in Health and PE	Education	Jacalyn Lund

Department/Majors CTW Ambassadors (M through W, including BIS degrees)		
Department/Major	**College/School**	**Ambassador**
Managerial Sciences	Business	Greg Henley, Walter Wallace, Tom Whalen, Kay Bunch
Marketing	Business	Chip Barksdale
Math and Statistics	Arts & Sciences	Yi Zhao
Modern and Classical Languages/ BA in French BA in German BA in Spanish	Arts & Sciences	Eric LeCalvez Robin Huff Rudyard Alcocer
Music/ Bachelor of Music, Bachelor of Science in Music Industry Mgt	Arts & Sciences	Oliver Green
Nursing	Health & Human Science	Kathy Plitnick
Nutrition	Health & Human Science	Jana Kicklighter
Public Admin and Urban Studies	Policy Studies	Shena Ashley, David Pitts
Philosophy	Arts & Sciences	Andrew Cohen
Physics and Astronomy/ Physics	Arts & Sciences	Brian Thoms
Political Science	Arts & Sciences	S. Rashid Naim
Psychology/ BS and BA	Arts & Sciences	Chris Henrich, Kim Darnell
Real Estate	College of Business	Karen Gibler
Religious Studies	Arts & Sciences	Christopher White
Respiratory Therapy	Health and Human Science	Doug Gardenhire
Risk Management	Business	Martin Grace
Social Work	Health & Human Science	Deborah Whitley
Sociology	Arts & Sciences	Wendy Simonds
Women's Studies	Arts & Sciences	Julie Kubala
BIS, Applied Linguistics	Arts & Sciences	Stephanie Lindemann
BIS, Classical Studies, Language Studies, and International Studies (MCL)	Arts & Sciences	Carol Winkler
BIS, Community Studies (Sociology)	Arts & Sciences	Carol Winkler
BIS, Asian Studies (History)	Arts & Sciences	Carol Winkler
BIS, Law and Society (Political Science)	Arts & Sciences	Carol Winkler
BIS, Middle East Studies (MEI)	Arts & Sciences	Carol Winkler
BIS, Environmental Science (Biology)	Arts & Sciences	Carol Winkler

Appendix G: CTW Workshop (Phase I)

Critical Thinking Through Writing Workshop
Phase I Agenda

I. Welcome and Introductions
   Mary Finn, Associate Provost for Institutional Effectiveness

II. How We Got Here
   George Rainbolt, Professor and Chair - Department of Philosophy, Chair - University
      Senate Committee on Admissions & Standards, and CTW Coordinator
   A. SACS, QEP and Critical Thinking through Writing Initiative (CTW)
   B. You have been selected as the CTW Ambassador for a major. In a nutshell, CTW
      Ambassadors coordinate the implementation of the CTW requirement in a major.

III. The CTW Requirement
   Oliver Greene, Assistant Professor - School of Music and CTW Coordinator
   A. The Senate CTW Motion
   B. CTW & Writing Across the Curriculum: Commonalities and Distinctions
      George Pullman, Associate Professor – Department of English, Director – Writing
      Across the Curriculum Center, and CTW Coordinator
   C. Discussion: What does a good CTW course look like? What do the terms of the
      motion mean? Will changes to the major be needed? Lots of short assignments
      or fewer longer assignments?
   1. "assignments that focus on critical thinking as demonstrated through writing"
   are assignments that use writing to help students develop the "wide range
            of cognitive skills and intellectual dispositions needed to effectively
            identify, analyze, and evaluate arguments and truth claims; to discover and
            overcome personal prejudices; to formulate and present convincing
            reasons in support of conclusions; and to make reasonable, intelligent
            decisions about what to believe and what to do." (Bassham, Irwin,
            Nardone & Wallace, Critical Thinking: A Student's Introduction
            (McGraw-Hill, 2005) page 1.) Typically, students will have the
            opportunity to revise at least one assignment during the semester.
      2. These assignments together should constitute a substantial percentage of the
         course grade.
      3. It has a maximum of a 25/1 student/instructor ratio. Should a CTW class have
         more than 25 students, the instructor will receive assistance. If a CTW
         class enrolls 51-75 students, the assistance of two people would be
         needed, and so forth.
      4. It is taught by a CTW-trained instructor.

IV. Preparation of Faculty for CTW

       Krista Meinersmann, Clinical Associate Professor and Associate Director of
       Undergraduate Programs - Byrdine F. Lewis School of Nursing and CTW
       Coordinator
       A. The Senate CTW Training Motion, train the trainer model. CTW Ambassadors
       trained and they train the faculty in their departments.
       B. The Roles and Responsibilities of CTW Ambassadors
       C. Discussion: How should one organize the training of faculty?
               1. One-on-one meetings.
               2. Workshops.
               3. Web-based training (only for the strong of heart).

V. Reporting and Assessment of CTW

       George Pullman, Associate Professor - Department of English, Director -Writing Across
               the Curriculum, and CTW Coordinator
       A. The CTW Assessment Report
       B. Discussion:
               1. Ambassador and Assessment Person One and the Same or Different?
               2. Done in conjunction with other assessment activities (e.g., accreditation) or
               independently?
               3. How to collect the assessment data?
               4. What does it mean to assess the data collected?
               5. To Rubric or Not to Rubric?
                       a. Washington State University's CTW Rubric
                       b. George Rainbolt's Typical Paper Grades

VI. Departmental/Majors CTW Plans

       Bill Bogner, Associate Professor - Department of Managerial Science and CTW
               Coordinator
       A. A CTW plan is required for each undergraduate major. The plan must be approved by
               the General Education Subcommittee of the Senate Committee on Academic
               Programs.
       B. The CTW Plan
               1. The web interface for submitting plans, http://www.wac.gsu.edu/ctw.php
               2. Plans must include
                       a. a list of your CTW courses. (Including course number, course title, and
                           proposed catalog course description.
                       b. the plan to train CTW Ambassadors. (If the Department is
                         using the University-provided training offered by the CTW
                         Coordinators (where you are right now), a one sentence statement
                         that the Department is using the University provided training is all

that is necessary. If the Department would like to use another
training, the plan must include a description of that training.
c. the plan to assess student learning outcomes in each CTW course.
d. the plan to report on assessment of student learning.
C. Discussion: What makes for a good CTW plan?
1. English CTW Plan
2. Philosophy CTW Plan
3. The CTW Ambassador's To Do List

VII. Discussion: Feedback on the Workshop
Mary Finn. Associate Provost for institutional Effectiveness

CRITICAL THINKING THROUGH WRITING (CTW) Workshop: Phase II
Ambassador Workshop: Phase II Agenda
Monday, November 5, 2007 from 1:00-4:00 p.m.
Troy Moore Library (939 General Classroom Building)

I. Welcome and Introductions   Mary Finn, Associate Provost for Institutional Effectiveness

II. Large Group: Review sections of department proposals   Marti Singer, Associate Professor – Department of English, Director of Lower Division Studies, and Chair of Senate General Education Sub-committee

III. Small Group: Definitions of critical thinking   George Rainbolt, Chair, Department of Philosophy,
    4 CTW Coordinators with groups   Chair of University Senate Committee on Admissions & Standards, & CTW Coordinator

IV. Small Group: Sample Courses/Assignments/Rubrics   George Pullman, Associate Professor, Department of English and
   4 CTW Coordinators with groups   Director of WAC Center, and CTW Coordinator

V. Small Group: Assessment & Reporting   Krista Meinersmann, Associate Professor, Associate Director of
    4 CTW Coordinators with groups   Undergraduate Programs – Byrdine F. Lewis School of Nursing and CTW Coordinator
                                   Harry Dangel, Associate Professor, Center for Teaching and Learning

VI. Large Group: Challenges & Successes   Bill Bogner, Associate Professor, Department of Managerial Science, CTW Coordinator

VII. Review & Next Steps   Oliver Greene, Assistant Professor, School of Music, CTW Coordinator

VIII. Questions & Answers