

Critical Thinking through Writing (CTW)

Annual Report

FY 2008-2009

Approved by CTW Leadership Team

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1/6/2009

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Section 1: Executive Summary

As part of its SACS re-affirmation process, Georgia State University was required to prepare a Quality Enhancement Plan (QEP). The University's QEP, the Critical Thinking through Writing Initiative (CTW), encourages faculty to use active learning strategies that require students to think critically about the subject matter in writing regularly. Typically through short, frequent, focused assignments that require written responses, students are encouraged to engage the subject continuously throughout the semester and to get more feedback than traditional lecture settings tend to provide. The CTW initiative has encouraged a university-wide transformation of undergraduate instructional practices in a manner that is virtually unparalleled among large research institutions, and it serves as evidence of our commitment to devoting significant resources and energy to the continuing goal of improving our undergraduate education.

The strategy for achieving this goal was to implement a university-wide graduation requirement that undergraduates pass two Critical Thinking through Writing (CTW) courses in their major. This requirement, approved by the University Senate in April of 2007, takes effect for all students entering fall term 2009 and thereafter.

By the end of the 2008-2009 academic year, the foundation of the CTW initiative has been established. In cooperation with leaders of the CTW initiative, departments have

- Established at least one faculty Ambassador in each major who is willing to advance the initiative for that major
- Identified the courses each major will use for its CTW requirement (121 courses in total)
- Established a university definition of critical thinking that ambassadors are refining to fit their disciplinary needs
- Explored different assignment designs to see how an assignment might both operationalize the definition and foster critical thinking
- Considered various critical thinking learning outcomes as possible measures of critical thinking and selected from among them those that seem most disciplinarily relevant
- Developed and tested rubrics, and other methods, designed to measure levels of critical thinking
- Incorporated new methods of teaching, including use of The Online Writing Environment, a web-based content management system developed at GSU that facilitates student-teacher interaction in writing and the gathering of assessment data through the use of rubrics tailored to each department's ideas about what critical thinking is for that discipline.
- Piloted 169 sections of CTW courses reaching over 4700 students and trained 142 faculty members who will begin teaching CTW officially in the fall 2009.

Leaders of the CTW initiative (see section 2.1 for organizational structure) have

- Set policies for a petitions process to address the needs of transfer students and students who wish to appeal the CTW graduation requirement
- Established technological mechanisms for tracking student fulfillment of the CTW requirement
- Created a reporting mechanism for CTW course assessment

- Worked to inform the university community of the initiative
- Held training workshops for departmental leaders and offered guidance in the implementation process
- Trained CTW consultants to work with the CTW courses

As we enter first year of CTW requirement, our community is ready to look closely at how GSU students think, how the way we ask them to think affects their understanding of the subject matter, and how we might improve both as a result of those insights. **Section 2: Organizational Structure**

The Critical Thinking through Writing initiative has been a university-wide effort. Over 2008-2009 academic year, several groups have been responsible for advancing the initiative throughout the university. Below is a description of the bodies responsible for managing the initiative.

2.1 CTW Leadership Team

The CTW Leadership team manages the initiative as a whole. CTW leadership team members are responsible for monitoring the growth of the initiative, anticipating difficulties that might arise, and assisting in the creation of policy related to the CTW initiative. Below is a list of the members:

1. Mary Finn—Associate Provost for Institutional Effectiveness
2. Jennifer Lawrence—Associate Director of Critical Thinking through Writing Initiative
3. Peter Lindsay—Director of Center for Teaching and Learning
4. George Pullman—Director of Critical Thinking through Writing Initiative
5. George Rainbolt—Chair of the University Senate Committee on Admissions and Standards
6. Marti Singer—Director of Academic Assessment

2.2 Undergraduate Assessment Committee (formerly General Education Assessment Sub-Committee).

The Undergraduate Assessment Committee (UAC) reviewed and approved department/degree CTW plans. Approval was granted on the grounds that the assignments provided provision for feedback and re-thinking of the subject matter and training for graduate students and faculty in CTW methods was planned. This committee was also responsible for reviewing the departmental annual reports to identify assessment of student learning outcomes specifically for critical thinking.

2.3 CTW Directors

The directors of the CTW initiative organize and schedule ambassador workshops, create and distribute surveys, monitor course listings, titles, offerings, sizes (caps), monitor faculty and consultant pay. They provide training to CT consultants; distribute information about the initiative to the university community; work with administration to ensure the initiative is achieving its objectives; help to set objectives; provide the online writing environment and support for faculty and students using it. They also maintain and develop the reporting mechanism for the annual reports as well as the initiative's website which is the institutional memory for the initiative.

2.4 CTW Coordinators

The coordinators are responsible for developing and holding information and training sessions for the Critical Thinking through Writing (CTW) Ambassadors. The coordinators are chosen by the Associate Provost for Institutional Effectiveness in consultation with the deans and chairs. The coordinators consist of two faculty members with specific expertise in critical thinking and writing, and eight additional faculty members to represent the breadth of disciplines across the university. The CTW initiative funded 10 Coordinators to help support the ambassadors on a broad scale. Coordinators were compensated \$2000 000for their work with ambassadors and the workshops.

The following points reflect an overview of the Coordinator's role and responsibilities:

- Provide assistance to CTW ambassadors
- Plan and present CTW workshops

2.5 Ambassadors

The ambassadors are faculty leaders chosen by department chairs to represent their respective degree majors for the implementation of the Critical Thinking through Writing graduation requirement. The CTW initiative funded 55 ambassadors, at least one ambassador from every department, at a rate of \$2500. In cases where a department was particularly large or diverse as to require additional support, departments were allotted more than one ambassador.

The following are the Ambassador's roles and responsibilities:

- Attend University-level Workshops offered by CTW coordinators
- With input of department and or chair, identify courses to be designated CTW and assure that CTW component of course is identified in all syllabi and in the CTW assignments
- If assigned by department chair, submit course materials for CTW approval through the General Education Sub-committee approval process
- With input & consultation with department chair, identify instructors teaching CTW courses
- With input from dept and or chair, develop an assessment and reporting plan for CTW initiative
- With input from department and or chair, assure that a person responsible for assessment of CTW is identified
- With input from department and or chair, prepare faculty for CTW instruction and assessment
- Assure that department plan specifies how the CTW component will be assessed and reported
- With input from chair, assure that the courses are taught regularly and appropriately staffed
- Assure that the faculty assess the CTW courses and develop an action plan

The following responsibilities may be completed by the Ambassador or may be assigned to someone else in the Ambassador's department.

- Provide feedback to the University regarding the practice of CTW in department/majors.

- Prepare annual CTW report (including the requested assessment information) and submit it to General Education Sub-committee (now the Undergraduate Assessment Committee or UAC).

2.6 CTW Consultants

The CTW consultants work with their respective courses as discipline-specific tutors. Consultants must be graduate students studying the discipline with which they will be working. If a discipline cannot provide graduate students to work as CTW consultants, the CTW office will help ambassadors find a consultant from a related discipline. The CTW initiative funded 65 graduate student CTW consultants at \$2000 per position per semester during the 2008-2009 academic year. Courses were required to have an enrollment exceeding a 25/1 student to teacher ratio for each consultant position.

The following are the CTW Consultant's responsibilities:

- Help students with drafts of CTW assignments, providing feedback and helping students learn to think critically about the material in the course
- Meet with students to discuss course content knowledge
- Work to improve student critical thinking skills within the discipline, helping them learn to think like a member of the discipline
- Work an average of 8 hours per week with their course
- Attend at least one class meeting and may be expected to attend more
- Familiarize themselves with course materials
- CTW consultants are tutors and should not be expected or asked to grade or teach

Section 3: CTW Accomplishments

3.1 Course Information

Currently, departments across the university have identified, presented, and had approved 121 CTW courses. One hundred of these were new courses. Thirty-eight departments have established two courses and the fourteen remaining departments established more than two courses to address the needs of their concentrations. The table below offers a breakdown of CTW courses by college and examines course offering by number offered in majors and number created or revised. For a complete list of CTW courses see Appendix A. For a list of the courses broken down by major and concentrations see Appendix B.

College	Majors with 2 Courses	Majors with more than 2 courses	Majors with only 1 course ¹	Number of new courses created for CTW ²	Number of courses revised for CTW
Andrew Young School of Policy Studies	5			1	3

College of Arts and Sciences	18	11		19	66
College of Education	2	1	1		8
College of Health and Human Sciences	3	2			12
Robinson College of Business	7	1		1	11
Totals out of 121 CTW Courses³	35	15	1	21	100

¹Early Childhood Education offers only one CTW course for ECE majors. The course, ECE 3601, is a 6 hour course.

²For a breakdown of new and revised courses by department see Appendix C.

³This is the number of approved CTW courses that will run on a consistent basis. An additional 28 directed reading courses have been identified by Arts and Sciences to serve the needs of Interdisciplinary Studies majors, and those readings courses will be reviewed each semester by the newly re-constituted CTW Leadership team as needed. The number of majors reporting to the University Assessment Committee (UAC) is 52. The number above is 51. These numbers are not consistent for several reasons. Two departments, Economics and Public Management and Policy, provide reports for their entire programs rather than for each major (Economics, International Economics, Business Economics, Public Policy and Urban Studies). Managerial Sciences, on the other hand, has opted to provide separate reports for each of its concentrations and is considered one major here. Additionally, International Business provides a report to UAC because it offers the gateway course for RCB, but it is not a major, and similarly, Theatre is a BIS degree, not a major in its own right, but reported separately from BIS in 2008-2009 because it runs courses required by several BIS concentrations and the courses run consistently, unlike the BIS directed reading courses.

CTW Courses Piloted in 08/09 Academic year

In the 2008-2009 Academic Year, 169 sections of 58 courses were piloted as CTW. Three colleges had a high percentage of CTW courses piloted. The percentage of piloted courses in the College of Health and Human Sciences was 91%, and in the Robinson College of Business the percentage of piloted courses was 83%.¹ While the College of Arts and Sciences ranked first in the total number of CTW pilots (32), first in the total number of sections offered (76), and second in CTW pilot enrollment, it ranked last in

¹ The percentage in RCB is particularly good given the fact that departments had intended to pilot all of their courses, but had to cancel two courses based on low enrollment, so they would have piloted 100% of enrollment would have allowed. Likewise, the numbers in the College of Education are also a bit skewed. COE only piloted 50% of their CTW courses, but four COE CTW courses were not offered in 08/09, thus the courses were not available for pilot, so they piloted 100% of available courses.

percentage of piloted courses, only piloting 36% of CTW courses.² Most majors in Arts and Sciences piloted at least one course, but several opted not to pilot CTW courses at all. The Andrew Young School of Policy Studies had the second lowest percentage of pilots. Economics piloted all available CTW courses, and in four sections they managed to offer CTW courses to 330 students. Their numbers were also a bit skewed because one course was not offered in Policy Studies. In that case, their percentage of pilots based on available courses is 66%.

Below is a breakdown of CTW courses piloted by college. For a complete list of CTW courses piloted in Fall 08, see Appendix D. For a complete list of CTW courses piloted in Spring 09, see Appendix E.

Table 4: CTW Pilot Information Fall 08 / SP 09					
College	Courses Piloted	Piloted Sections	Student Enrollment	Courses Not Piloted	Courses Not Offered
Andrew Young School of Policy Studies	2	4	330	1	1
College of Arts and Sciences	32	76	1391	30	26
College of Education	4	14	274	0	4
College of Health and Human Sciences	10	26	798	1	0
Robinson College of Business	10	49	1914	0	2
Totals out of 121 CTW Courses	58	169	4707	32	33

CTW Fall 2009 Offerings

In fall semester 2009, we anticipate 79 courses will be taught as CTW with a student enrollment of up to 4284 students and 149 faculty members teaching CTW courses.

Below is a breakdown of CTW courses by college for fall 2009. For complete details see Appendix F .

Table 5: Fall 2009 CTW Course Offerings by College

² The percentage improves a bit when considering that Arts and Sciences was unable to pilot 26 of its courses because they were not offered during the 08/09 academic year. In that case, Arts and Sciences piloted 52% of its available courses.

College	Courses Offered	Number of Sections	Potential Enrollment based Caps	Number of Faculty Teaching
Andrew Young School of Policy Studies	4	6	308	6
College of Arts and Sciences	59	111	2116	102
College of Education	2	8	170	3
College of Health and Human Sciences	6	10	420	10
Robinson College of Business	8	34	1270	21
Totals out of 121 CTW Courses	79	169	4284	142

3.2

CTW Policies

The following policies were developed in response to concerns raised by the college advisors and in consultation with the Director of Undergraduate Admissions, Scott Burke, the Associate Provost for Academic Programs, Tim Renick, the Associate Provost for Institutional Effectiveness, Mary Finn, chair of the University Senate Committee on Admissions and Standards, George Rainbolt, Director of Academic Assessment, Marti Singer, Director of CTW, George Pullman, and Director of Web Services, Tim Waltering. Specifically, the advisors were concerned that a large number of transfer students would be adversely affected by the CTW requirement. Subsequently we determined that the number was in fact relatively small, 47 students. However, the concern is a legitimate one and the following policies were enacted to address them.

A. Transfer Credits

The majority, but not all, of the CTW courses evolved from established courses in the major that were previously equivalent to courses offered at other colleges and universities. However, CTW courses are built upon an approved university-wide definition of critical thinking and undergo the approval process outlined above. Thus, to assure the integrity of the CTW graduation requirement and consistency in the evaluation of course equivalency, all courses that have been directly equated to GSU courses designated as CTW effective fall 2009 will be equated to upper division electives for that subject area (i.e., as 3099 or 4099). Transfer credits should no longer be automatically equated to CTW courses, as the course content and structure are normally specific to Georgia State (see University Catalog Section 1430), and equivalencies to CTW courses are rare.

B. Tracking CTW Course Designations

Administrators of the CTW program are responsible for monitoring changes in each academic department's CTW course offerings. This will be accomplished by the maintenance of a catalog of all

active CTW courses approved for each degree major and their effective date of approval. If departments intend to modify their CTW course offerings--for example, remove the CTW designation from an approved CTW course--they need to notify the CTW Director of such action and its effective date. Departments are required to review and update all University Catalog information regarding its CTW courses annually at a minimum to assure its accuracy. Articulation agreements for course equivalency with regard to transfer credits also should be reviewed annually.

C. Appeals for CTW Transfer Credit

Students who wish to petition for CTW transfer credit should follow the transfer credit petition procedures established for each college and/or department, with decisions about CTW course equivalents made in consultation with the appropriate department's CTW Ambassador and/or the department chair.

D. Appeals to Waive CTW Graduation Requirement

Such appeals will follow the route outlined in the Student Code of Conduct (Section IV. B. 8):

Appeals of other university-level academic rules and graduation requirements will be made in the first instance by the Academic Director of Student Retention.

- b) If the petition is denied, the student may appeal to the Academic Regulations Appeals Committee, a subcommittee of the Senate Committee on Admissions and Standards. The student must appeal in writing and within 10 business days of being notified of the decision of the Academic Director of Student Retention.
- c) The Academic Director of Student Retention will copy the Chair of the Academic Regulations Appeals Committee on all letters to students notifying them of results of their petitions. Every semester, the Academic Director of Student Retention will distribute to the Senate Committee on Admissions and Standards a report that indicates (at a minimum) the number of petitions filed, the number granted, and the number denied. Any member of Admissions and Standards may review the documents of any petition when there is a legitimate educational interest.

3.3 CTW Funding Overview 2008-2009

Funding for CTW is directed almost entirely toward enhancement of student learning through the improvement in the substance and delivery of our baccalaureate degree program's curriculum. To capture the interest among talented educators among the undergraduate faculty and to provide them with financial incentive to pursue lines of research into teaching and learning, summer funds have been provided to at least one faculty member (ambassador) from each of the undergraduate majors. Additional funding in the form of GTA support has been provided in all colleges except Arts and Sciences, which opted to hire faculty to support the initiative. An overview of the funding is presented in the following table.

The majority of resources allotted to the Critical Thinking through Writing Initiative have been used to fund faculty participants, such as CTW Ambassadors, CTW Coordinators, Undergraduate Assessment

Committee Members, CTW Directors, and CTW new faculty hires. The table below illustrates the distribution of funds by college. A breakdown of the entire budget for FY 2008/2009 can be found in Appendix G and a breakdown of funding by department can be found in Appendix H.

Table 6: CTW Funding for 08/09 By College			
College	Amount for CTW Related Roles¹	Amount for New Faculty Hires funded by CTW²	Amount for CTW Consultant support³
Andrew Young School of Policy Studies	\$14,000		\$18,000
College of Arts and Sciences	\$93,000	\$102,263	0
College of Education	\$11,500		\$12,000
College of Health and Human Sciences	\$17,500	\$40,000	\$40,000
Robinson College of Business	\$39,500		\$60,000
University (CTW Directors Office)⁴	\$78,456		
Totals	\$177,500	\$142,263	\$130,000

¹ CTW related roles include CTW Ambassadors, CTW Coordinators, and UAC (formerly GEAC) Assessment committee members. Ambassadors received \$2,500 in compensation; Coordinators received \$1000; and UAC committee members received \$2,000.

² The College of Arts and Sciences opted out of graduate student consultant support in favor of new faculty hires. Amounts cover one position in Biology (\$61,763), one position in Communications/Journalism (\$40,500). The College of Health and Human Sciences hired an Academic professional to coordinate the CTW Initiative across its departments (\$40,000).

³ This amount covered 65 graduate student CTW consultants at \$2000 per position per semester. Courses were required to have an enrollment exceeding a 25/1 student to teacher ratio for each consultant position. For a complete list of consultants funded see appendix I.

⁴ This amount covers 1/3 of the Director's annual salary and the Associate Director's entire salary.

3.4 Distribution of Information

To prepare students, advisors, and the faculty at large for the integration of the CTW graduation requirement, the CTW initiative was promoted to the GSU community and the larger community.

A. Georgia State University Community

The CTW Director and Associate Director attended several meetings in February, March, and April 2009 with academic advisors housed in each of the five colleges and the admissions office to discuss the CTW initiative and the impact it will have on transfer students. The directors also attended meetings with the university schedulers and the Director of Undergraduate Admissions, Scott Burke.

Between March 31st and April 28th, 2009, the CTW office hosted 6 general information sessions on CTW. Department chairs were invited along with ambassadors, advisors, and CTW faculty. The hour long meetings were designed to answer any questions those groups might have about the CTW initiative.

An article "5 Minutes with: George Pullman Director of Georgia State's Critical Thinking through Writing Initiative" was printed in *Villager* the faculty and staff newsletter on May 6th, 2009. The article covered the basic policies and agenda of the CTW initiative. See appendix J.

B. GSU Student Outreach

Representatives from the CTW office have attended Incept meetings for incoming freshmen and transfer students. CTW representatives were available to speak with students and their families and handed out copies of an information sheet. Copies of the CTW brochure were also placed in the bag of materials provided to all new students. A copy of the brochure is in Appendix K.

Representatives from the CTW office attended the Major Matters fair in February 2009 to offer information on Critical Thinking through Writing to students at the sophomore level. While the CTW requirement will not apply to these students, most will take CTW courses before they graduate.

C. Larger Community

The CTW Director and Associate Director along with the Georgia State University Director of Academic Assessment and the Director and the Associate Director of the Writing Across the Curriculum Program presented on Critical Thinking through Writing at two conferences: the Writing Across the Curriculum Conference in Quinnipiac Connecticut (November 2008) and the Conference on College Composition and Communication in San Francisco (March 2009).

The Associate Provost for Institutional Effectiveness, the University Assessment Director, and the Associate Director of CTW traveled to South Georgia College in October 2008 to discuss Critical Thinking through Writing as Georgia State's Quality Enhancement Plan.

D. Scholarly Products

Several CTW Ambassadors also presented and/or published their work on the CTW initiative.

Katherine Plitnick, Nursing Ambassador, and Krista Meinersmann, CTW Coordinator, presented a poster presentation at the 35th Annual Nurse Professional Nurse Educators Group in October 2008.

Managerial Sciences Ambassador, Kay Bunch, has prepared three articles on incorporating Critical Thinking through Writing in her class. One of her articles, "The Role of Vignettes in Teaching HR Law to Undergraduates" was published in the *Western Journal of Human Resource Management*. She has two other articles under review: Assessing Critical Thinking Using Employment Law Cases to Develop Situational Judgment Tests being reviewed by *Teaching Conference for Management Educators* and Promoting Critical Thinking Skills through Organizationally-Sensible Employment Law under review for Academy of Management Annual Meeting.

3.4 Workshops

Directors of the CTW initiative offered four sets of workshops for the Ambassadors over the 2008-2009 year. A list of workshop attendees is available online at <http://www.gsu.edu/ctw/25451.html>. See Appendices M and N for workshop agenda examples. The Fall and May workshops were required of all ambassadors.

A. Fall Workshops

In October, 2008 the CTW office required ambassadors to attend a workshop to discuss their responsibilities for the year, discuss the reporting mechanism, identify specific critical thinking outcomes for each department, and showcase each department's efforts regarding the CTW Initiative. Asking workshop participants to approach the CTW initiative as if it were a research project on understanding students' critical thinking, participants were invited think in a systematic way about the questions we hoped to answer, the data we wanted to collect, and the way we wanted to report our findings. The workshop content was replicated between October 27th and October 31st. A total of 53 ambassadors attended across the four days. A list of workshop attendees is available online at <http://www.gsu.edu/ctw/25451.html> See Appendix M for the workshop agenda.

B. Winter Reporting Workshops

On January 20 and 21, 2009 the CTW office hosted two reporting workshops for CTW select ambassadors that were optional for attendance. The CTW office invited 20 ambassadors who had been engaging in widespread piloting to test the reporting mechanism. During the workshops, ambassadors were introduced to the CTW reporting mechanism and asked to enter reports from fall pilot courses. A total of 11 attended. A list of attendees can be found online at <http://www.gsu.edu/ctw/25451.html>

C. Spring Reporting Workshops

Between April 21 and April 27, 2009 the CTW office hosted 6 reporting workshops for CTW ambassadors. These reporting sessions were optional meetings for ambassadors. During the workshops, ambassadors were introduced to the CTW reporting mechanism and asked to enter reports from fall and spring pilot courses. A total of 17 ambassadors attended. A list of attendees can be found online at <http://www.gsu.edu/ctw/25451.html>

D. May Workshop

The CTW May Ambassador workshop was held on May 26th, 2009. Ambassadors were required to attend and topics included a discussion of accomplishments in AY 08-09, an overview of successful CTW

pilots presented by selected ambassadors, a review of the reporting mechanism, a question and answer session for the Undergraduate Assessment Committee chair, and preparation for fall semester (including a discussion of CTW policies enacted during the 08-09 year and some information about the fall 2009 workshop. The total number of attendees was 34 --A list of workshop attendees can be found online at <http://www.gsu.edu/ctw/25451.html> See Appendix N for the workshop agenda.

Section 4: Faculty and Student Response to CTW Pilots

The CTW Office surveyed faculty and students participating in CTW pilot courses offered in AY 08-09. The surveys were conducted online and the results of the surveys were provided to all CTW Ambassadors.

4.1 Faculty Response to CTW Pilots

Faculty piloting CTW courses in AY08-09 were contacted following completion of their CTW course and asked to comment on their experiences. Faculty were instructed that the survey was voluntary and that their comments would be shared with their ambassadors. IRB approval for the faculty survey was not sought as the information obtained was to inform and improve the CTW Initiative.

An overview of faculty responses to the survey are presented below in table 7. To view the survey instrument, see Appendix O.

Table 7: Overview of CTW Faculty Responses to Pilot Survey			
Question	Workshop	One-on-One	None
Describe the training you received	18	8	3
Question	Yes	No	Individual Faculty Rubric
Did your department use a rubric?	22	6	1
Question	Worked Well	Needs Revision	Did Not Use
Offer an evaluation of rubric	11	10	7
Question	Short Assignments	Long Papers	Revision Based
Describe types of CTW assignments	21	7	2

Question	Yes	No	Could Not Tell
Did these assignments improve students thinking in your discipline?	21	3	5

4.2 Student Responses to CTW Pilots

At the end of the fall 2008 and spring 2009 semesters, the CTW office contacted faculty members piloting CTW courses and asked them to invite their students to participate in a survey; results are presented in Table 8. In the survey, students were asked to rate their level of agreement with a series of statements about critical thinking. Students were also asked to rate a list of critical thinking skills for their relevance to the CTW assignments completed in the course. This survey instrument was submitted and approved by IRB prior to distribution. A copy of the survey instrument may be found in Appendix P.

Table 8: Overview of CTW Pilot Student Survey	
Statements¹	Average
1. Critical thinking is important in my discipline.	3.4
2. Critical thinking is important in the field I plan to pursue beyond college.	4.3
3. Writing is important in the field I plan to pursue beyond college.	3.9
4. The critical thinking through writing assignments in this course improved my ability to think like a member of my discipline.	3.4
5. The critical thinking through writing assignments in this course improved my ability to write like a member of my discipline.	3.3
6. The critical thinking assignments in this course have prepared me for the job I plan to pursue after college.	3
7. The critical thinking through writing assignments were clearly related to the goals and objectives of the course.	3.8
8. The critical thinking through writing assignments helped me learn the material for this course.	3
9. The expectations for the critical thinking through writing assignments were clearly communicated.	3.7

10. The critical thinking rubrics (rating guide/scoring sheet) helped me understand the expectations for the critical thinking through writing assignments.	3.3
Skill²	Average
11. identify the kinds of evidence a valid decision would require	3.7
12. ask relevant questions	3.7
13. formulate a testable hypothesis	3.5
14. evaluate the validity of evidence	3.7
15. defend a decision	3.9
16. combine ideas from multiple sources into a coherent argument	4
17. evaluate the reliability of web-published information	3.4
18. make accurate inferences	3.8
19. effectively question the validity of an argument	3.7
20. defend an interpretation	3.8

¹Students were asked to rate their level of agreement with statements about critical thinking, with 1 = strongly disagree and 5 = strongly agree.

²Students were asked to rate a list of critical thinking skills for their relevance to the CTW assignments completed in the course, using a 1 to 5 scale with 1 = not at all relevant to 5 = highly relevant. See Appendix L for the entire list of critical thinking skills as ranked by faculty.

Section 5: CTW Annual Reports

In May 2009, CTW Ambassadors were asked to complete a pilot report. All but one department submitted a report. The reports were reviewed in June 2009 but the Undergraduate Assessment Committee (formerly the General Education Assessment Sub-Committee).

5.1 Reporting Mechanism

The success of an initiative of this magnitude requires careful input from as many key people as possible. This is why the decision was made to have each ambassador submit an annual report. At the same time, without some standardization, 55 reports would create confusion rather than insight. Thus it was decided a content management system specifically for the CTW initiative be developed. Having all of the annual reports in a single database will simplify record keeping and foster research regarding the initiative from year to year and over time.

Considering the stage of this initiative (completing the first of a five year project) and because ownership of the Initiative must be distributed for it to be successful and sustainable a decision was made to develop a means of reporting that could foster reflection and narration. The spirit in which the content management system for annual reporting was presented is indicated by the preamble on the website, which can be found by the ambassador when he or she logs in:

The purpose for the CTW annual report is to help you reflect on the current state of your degree majors' implementation of the CTW initiative, to develop measures of critical thinking, identify effective methods for fostering critical thinking, and to give you a forum for presenting your findings to GSU and the world beyond. The social values implicit in the design and implementation of the annual report are:

- the autonomy of each degree major in determining what critical thinking is for them and their students.
- for deciding how to measure critical thinking
- for determining how to evidence development in critical thinking
- for assessing the success of its curriculum
- and for modifying its curriculum and pedagogy to respond to its own perceptions of success
- the responsibility of each degree major for developing mindful pedagogies
- making reasonable efforts to measure critical thinking
- develop a process for continual improvement in teaching and learning
- develop a culture that values instructional research
- the necessity for constant re-thinking and revising of practices, outcomes, and assessments

Because the annual report is a community effort at continuous improvement, it is critical that you share your activities and insights with your colleagues inside and outside your degree major. We all have a great deal to learn from our students and each other. This is the spirit with which we are developing the CTW annual reporting mechanism, and why we want you to be a significant part of the development team.

The annual report consists of three sections. Section one is for exhibiting examples of critical thinking through writing assignments and student work in response to those assignments. Section two is for reflecting in a semi-structured way on the level of critical thinking achieved by your students, and the part the assignments seem to play in fostering and developing their critical thinking ability. Section three is for you writing about your degree majors' plans for next year based on what you reported in the other two sections.

The areas the ambassadors were asked discuss were as follows:

1. Reflections

- Tell us how your department's workshops went this year, who attended, what happened, what was decided, and your general impression of the success of the meetings.
- Tell us what assessment methods were used, and how well you think they worked. What is the distribution of critical thinking among students in your major? Do the students demonstrate improvement in critical thinking over time?

- How well did the assignments you looked at assess and improve you students' ability to think like a member of your discipline? What elements of critical thinking seem to be most and least important to your faculty? What kinds of changes to the assignments will you suggest to faculty for next year based on your observations?

2. Action Plans

- Based on the data you've gathered and your analysis of it, what are the strengths and weaknesses of your department's CTW initiative?
- What worked that you want to continue doing?
- What areas for improvement in assignments, curriculum, pedagogy, etc., have you identified?

5.2 UAC response to CTW Pilot reports

On June 16th and 17th, 2009, the Undergraduate Assessment Committee met to review the CTW pilot annual reports. A summary of the Committee's review was then prepared by the Director of Academic Assessment and is attached to this document as Appendix Q.

According to the UAC report, 78% of departments have engaged in some faculty training (see Appendix P). Of those departments that have begun training CTW faculty, 20 departments instituted a departmental workshop system of training, 14 met with faculty members one-on-one, and 6 departments had no training requirements because the ambassador is the only faculty member teaching the CTW course. Although we are pleased that 78% of departments began training last year, the CTW annual report shows that 9 departments will be offering initial CTW training for faculty in fall 2009. An additional 5 departments offer no mention of faculty preparation or plan to offer no faculty preparation. As CTW depends on the participation of individual faculty members across the university, and as the CTW guidelines require those faculty members be trained, we feel it is highly important to follow up with departments offering training for the first time in fall 2009 or planning to offer no training.

UAC reports that 25 of the 36 majors that piloted in 2008-2008 used rubrics as their primary method of assessing student achievement (see appendix R and appendix S); however, only three of those 25 majors provided an explanation of student achievement as measured by the rubric. This may be attributed to the fact that the CMS did not explicitly ask for numbers of any kind. In addition, several ambassadors and some faculty expressed some doubts about the effectiveness of the rubrics both as instructional tools and assessment mechanism. 17 ambassadors said that they planned to revise their rubrics in 2009-2010. In spring 2009, Spencer Middleton, CTW Coordinator for HHS, and Brennan Collins, Associate Director for Writing Across the Curriculum, hosted a voluntary workshop on rubric construction for CTW ambassadors. Approximately 20 Ambassadors and CTW faculty members from across the university attended the voluntary sessions. We believe these efforts need to be ongoing. Perhaps several years from now, when each major has a clear understanding of what critical thinking means to it and a clear understanding of how to measure it, the rubrics will be stable enough to simply do their work. Until then, a great deal of reflection in action is required. We will continue to offer and promote such workshops and highlight discussions of assessment procedures at our annual meetings. We will also continue to work closely with the Assessment Director and the UAC chair to update the report questions

so that the questions encourage Ambassadors to focus on drawing connections between their assessment techniques and student learning.

Section 6: Reflections and Action Plan

6.1 Reflections

A. Funding

This distribution of resources was adequate in the construction of the program. For example, the Undergraduate Assessment Committee members were compensated during the pilot year because they were required to review and approve large numbers of CTW plans, CTW courses, and CTW assignments. Now that each degree program has an implementation plan and an initial set of CTW courses approved, UAC workload related to CTW may not warrant continued compensation. Likewise, CTW coordinators were critical for fostering and guiding CTW ambassadors in their work and structuring workshops, however now there is a Director and Associate Director for CTW that can perform this function. In order to assure and maintain the strength and contributions of broad disciplinary perspectives to CTW, the coordinators will be asked to join the CTW Leadership team, thus expanding its size from four to twelve members. The roles and responsibilities of this team will be: Because each ambassador represents the initiative in his or her department and is directly responsible for its implementation, design, and function, the ambassador role is critical to the success of the initiative. The ambassadors will therefore continue to receive compensation. Likewise, the CTW consultants will continue to be funded in order to assure that the student to faculty ratio of 25:1 is not exceeded. In order to maintain the integrity of that requirement and to assure that resources are allotted appropriately, the CTW initiative will enact a policy such that funding will be withdrawn from any courses that have not meet the enrollment requirement by one week prior to the start of any given term. We have encouraged departments to have alternative resources for funding of graduate students to reduce the negative impact on such students if CTW funding is not available.

B. Survey Responses

Only 29 of the 167 faculty members (17%) invited to participate responded to the CTW pilot survey. Respondents reported the experience to be generally positive. In their general comments, twelve respondents expressed a willingness to teach the course again. Three respondents reported that they felt they needed a bit more training. Four respondents reported teaching the pilot was much more work than they anticipated, but all believed that it was “worth it.” Most faculty members reported that CTW assignments improved their students’ ability to think like a member of their discipline.

C. Analysis of Student Responses to Pilots

Students responding to the survey on average agreed with the notion that critical thinking would be important in their future career. Overall, they ranked that statement the highest (4.3 out of 5). On the other hand, they ranked statements about the CTW assignments lowest, ranking statements about the assignments ability to prepare them for the job market and to help them learn the material for the

course the lowest (3 out of 5). These findings are particularly interesting because they suggest that students may believe they won't have to think until they leave college and enter the work force. This has anecdotal support in other survey data we have collected, mainly the low score our students give on the NSSE question, "Do you need to prepare for class?", which suggests that students are disengaged with the subject matter from day to day. Or perhaps the survey data reflects the students' inability to see a relationship between the assignments they are being asked to do and the work they imagine they will do upon graduation, which reinforces the idea that more work needs to be done on how assignments are designed and integrated into the class. Given that students don't really know what they will be doing when they graduate, and faculty are responsible for the subject matter of the discipline, perhaps the focus of the CTW assignments should be on helping the students learn the subject matter better by getting them to think more deeply about it, thus getting them to think more. Perhaps critical thinking is the means, not the end.

Another element from the student surveys worthy of consideration is resistance to the idea of critical thinking being a part of university learning. While this attitude is far from wide-spread, it does exist and we need to investigate it further.

We will have to do a great deal more analysis of the student survey, and look at the student surveys over time to draw any firm conclusions about the student responses; however, it is interesting to note that while the students seemed least impressed with the CTW assignments, the faculty responding to the CTW pilot survey seemed to think that the assignments had improved the quality of their students' thinking.

D. Workshop

Attendance for the required conferences, Fall and May, was 90% in the fall with the number reaching 100% in make-up sessions and 60% in the May session- a total of 34 attendees. The fall session was divided into several small group meetings held over five days. The small group setting seemed to allow for a great deal of conversation and the multiple offerings provided greater flexibility for the ambassadors attending. In that way the fall sessions were particularly effective for the ambassadors. The May session had considerably smaller attendance; however, it should be noted that the May workshop was a session for the entire group held on one day, and while the percentage of participation was lower, it was slightly up from the previous year's May meeting.

E. Reporting Mechanism

Ambassador response to the reporting mechanism was largely positive. Ambassadors liked being able to view reports for other departments and felt that the system was fairly easy to use. There was a glitch in the system early in the reporting cycle that made the process of saving information a bit confusing. Ambassadors commented on the glitch and said that it was a source of frustration. To the question of whether they had information that they were not allowed to submit in their report, most answered that they had no additional information that they would have liked to report, one said that she would have liked to submit grades, another suggested that he would have liked to discuss the process of setting up CTW in his department a bit more, and finally, one suggested that she would have liked to incorporate student surveys that she distributed in her class outside the general CTW student survey. Ambassadors

were also asked what difficulties they had in gathering information for the report. Overwhelmingly, ambassadors answered that they had no difficulties gathering information; however, a significant portion of the respondents said that they experienced difficulties convincing fellow faculty members to submit information for the report. One ambassador expressed a bit of frustration saying that because he is on a “peer” level with his CTW faculty members he can only ask “nicely” for the information and then ask “nicely” again.

F. Reflection on UAC Report

Overall, the pilot reporting session went well. All departments submitted a report, with the exception of Interdisciplinary studies, which had no CTW courses piloted outside of the major areas. Next year, we plan to work with the BIS ambassador in the coming year to set up a reporting system that will address the complexities of the BIS degree program and the needs of the CTW reporting requirement. Sixteen departments (including BIS) did not pilot in the 2008-2009 academic year. Fifteen of those departments provided some sort of report. Many of those departments merely reported that they had little to report. Of the departments that piloted and completed reports, most provided adequate information. After reviewing the reports (see Appendix R and S) and speaking with the UAC members who reviewed the reports, we plan to take the following actions for the 2009-2010 report:

1. Contact Ambassadors about CTW training in their departments
According to the CTW reports, five departments have engaged in no CTW piloting and no CTW training. None of those five departments are offering CTW courses in the fall, so representatives from the CTW leadership team will need to meet with those ambassadors by mid-fall semester at the latest to discuss training and begin the training process. Eleven departments will be offering their first CTW workshops in the late summer/early fall. Nine of those departments are teaching CTW courses in the fall for the first time. Those departments have been contacted by members of the leadership team and offered support with the training process. The remaining 2 departments are not offering their CTW courses until spring, so they will be contacted by members of the leadership team by mid-fall semester at the latest to offer support.
2. Revise the assessment questions
Reviewers noted that ambassadors often did not report a connection between the assignments, the assessment, and the outcome. Members of the leadership team will work with the University Assessment Director and the Chair of the Undergraduate Assessment Committee to develop questions which will encourage more detailed responses to assessment questions.
3. Reformat the Content Management System
Reviewers noted that certain aspects of CTW course development (syllabi for example) were visible in the CTW template (the course proposal mechanism) and not visible in the Content Management System. Reviewers requested that we transfer all course information to the Content Management System so that reviewers can easily access all of the CTW data.
4. Tailor Coordinator meetings to Action Plans and create links between ambassadors based on achievement and need

In their Action Plans, Ambassadors noted several key areas they would like to improve in the 2009-2010 academic year. According to the UAC review, 26 CTW Ambassadors reported a need to focus on faculty training in the 2009-2010 year. Further, 21 had plans to revise their CTW and 17 planned to focus on rubric revision. This data will help the leadership team develop training sessions tailored to the Ambassadors' needs. And, the data UAC was able to gather from their Action plans can be compared to the data from their perceived achievements to help the leadership team coordinate ambassador lead discussions. For example, 8 ambassadors expressed a concern with student resistance to the CTW initiative and planned to address that in the 2009-2010 year. In the Achievement section of the UAC report 4 Ambassadors reported receiving very positive student feedback and another 10 said that they saw significant student improvement. While the CTW Leadership team can offer support to the Ambassadors, we believe that it will also be very beneficial to link ambassadors who have had great success in one area with ambassadors who are struggling to overcome obstacles in the same area.

6.2 Action plans

As we prepare for the official start of the CTW requirement in fall 2009, we anticipate several issues affecting departments as they offer their CTW courses for the first time or as they begin offering CTW courses more widely.

- Smaller than anticipated class sizes may lead to cancellations and thus potentially inconvenience students
- Faculty resistance – some faculty find these kinds of assignments greatly increase the time they spend teaching and the time they spend outside of class providing feedback to students (they might call that time spent grading, but that's part of the larger problem of how teaching is perceived and rewarded).
- Faculty who received CTW consultants generally thought better of the initiative than those who did not, suggesting that faculty hires may not necessarily be the best way to advance this initiative, at least in so far as faculty perception is an adequate measure.
- Workload concerns – need for CTW activity to be a standard category in faculty annual reports.
- Student resistance – more analysis is necessary here, but one distinct possibility is that some students think critical thinking is basically innate and that adding it to course requirements and learning strategies is perceived as a threat to their success. They have grown accustomed to memorizing information and practicing routines and find daunting the idea of questioning the subject matter and applying it in unfamiliar settings.
- Handling course transfer appeals
- Scheduling the right number of CTW courses at the right times, staffing them with CTW trained faculty
- Training for CTW consultants
- Ongoing training in best practices for ambassadors and faculty
- Continuing to refine and develop rubrics, definitions of critical thinking
- Identifying measurable critical thinking outcomes through writing (see Appendix T)
- Adding, dropping CTW courses, seeking approval, avoiding confusion

The leaders of the CTW initiative plan monitor these issues as they develop over the year, and we will work with ambassadors to address their concerns as they arise, either through proposing policy changes, in the case of class cancellations become too broad, or through offering workshops to address student and/or faculty resistance.

The pilot year was remarkably successful. The people, policies, classes, and initial practices are in place. The primary questions for the coming year's research have been identified. The most significant change from this year to next regards the administrative structure. We plan to fold the coordinator and leadership teams into one team, called the leadership team.

From an administrative perspective we are going to flatten the hierarchy and reduce the cost of operations. Last year we offered a stipend to faculty members (called coordinators) who showed a particular interest in the initiative and asked them in return to mentor a group of faculty from their college. Now that all of the courses have been identified and the faculty informed, the coordinator role is no longer necessary. This coming year we will fold the coordinators into the original leadership team and together all of them will help the ambassadors from all colleges. There will be no compensation for this role in the initiative.

The responsibilities of the newly reconstituted leadership team, pending their approval at the August 13, 2009 meeting, will be as follows:

- Set and adjust CTW Policy
- Review a draft of the CTW office's annual report
- Meet once a month to discuss issues that have arisen
- Leadership pairs will meet at least once a semester with ambassadors (as listed below)—to see how things are going and report back to the group.
- Determine winner(s) and the prize(s) for the best CTW reports
- Run one workshop a year for ambassadors on topics related to critical thinking, writing assignments, responding to students writing, teaching large sections, assessment methods, etc.
- Proposed members: Bill Bogner, David Cheshire, Mary Finn, Shelby Frost, Teri Peitso-Holbrook, Jennifer Lawrence, Peter Lindsay, Spencer Middleton, George Pullman, George Rainbolt, Marti Singer, Brian Thoms.

The primary goals for the year will be to decide if the chosen critical thinking student learning outcomes are the best ones for each major, refine rubrics to assess those outcomes, further analyze and refine the assignments designed to foster and measure those kinds of thinking, and develop some baseline data regarding students' current capacity for critical thinking, while also trying to discover how well the critical thinking assignments help the students learn the subject matter of the courses.

During the course of the coming year, the ambassadors will test the outcomes to see how well they can be measured and how well they seem to represent critical thinking in their disciplines.

Our first official CTW meeting of the year will be held on September 4th. This meeting will be a daylong workshop for ambassadors, inaugurated by President Becker, with Dr. Bill Condon of Washington State University, a recognized leader in assessment and critical thinking, as a guest speaker and facilitator. During that workshop awards will be given to the most successful ambassadors from the pilot year.

We will offer the ambassadors a slate of workshops throughout the year, most likely 6 in all, to discuss these matters and to deal with issues that may arise. We will also offer some informal training for Critical Thinking through Writing consultants. While we remain committed to the idea that ambassadors and their faculty really should be the primary trainers because they are the subject matter specialists, it is apparent that some of the smaller majors and even some of the larger ones would like help with training. We are in a position to provide assistance and so we will.