GEN ED#5 – INTEGRATE KNOWLEDGE AND SKILLS IN THEIR PROGRAM OF STUDY **QCC Example Outcomes: Common Core Outcomes:** Create coherent, Flexible Core: II – requirements for all categories 1. Gather, interpret, and assess information from a variety of sources and points of view. documented essays, presentations, or solutions Evaluate evidence and arguments critically or analytically. Produce well-reasoned written or oral arguments using evidence to support conclusions. to problems based on SEE ALSO ITEM #4 IN EACH OF THE FLEXIBLE CORE CATEGORIES: gathering, analyzing, and comparing evidence from II. A. 4. more than one perspective Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring world cultures or global issues, including, but not limited to, anthropology, Demonstrate critical and communications, cultural studies, economics, ethnic studies, foreign languages (building upon previous language acquisition), geography, history, political science, sociology, and world creative thought by literature. producing new arguments, II.B.4. art or solutions to complex Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the U.S. experience in its diversity, including, but not limited to, anthropology, problems communications, cultural studies, economics, history, political science, psychology, public affairs, sociology, and U.S. literature Analyze and compare Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the relationship between the individual and society, including, but not limited to, evidence to support/refute different points of view on anthropology, communications, cultural studies, history, journalism, philosophy, political science, psychology, public affairs, religion, and sociology a particular topic II.C.4 Complete sequential Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring creative expression, including, but not limited to, arts, communications, creative writing, media arts, music, and theater courses that use knowledge and skills from II.E.4. a previous course to Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited master the higher level to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies Complete a culminating assignment in a capstone course **GEN ED OUTCOMES ADDRESSED IN** QCC 5 ASSESSMENT: a. Create coherent, documented essays, presentations, or solutions to problems based on gathering, analyzing, and comparing evidence from more than one perspective c . Analyze and compare evidence to support/refute different points of view on a particular topic Flexible Core: II - requirements for all categories Gather, interpret, and assess information from a variety of sources and points of view. Evaluate evidence and arguments critically or analytically. Produce well-reasoned written or oral arguments using evidence to support conclusions. **EVIDENCE/ MEASURABLE DATA** In the Fall Semester of 2010, 269 students in 11 sections of Introduction to Philosophy (SS 610) we asked to complete a course assessment questionnaire. The survey asked students to state whether they agreed or disagreed with a series of 12 statements designed to measure either a General Education GROUP SIZE: Objective (GEO 2: Use analytical reasoning skills and apply logic to solve problems and GEO 5: Integrate knowledge and skills in their major field and No. of students _269____ across disciplines). or a Course Objective (ICO1. Identify concepts and methods of philosophy to examine perennial issues in the discipline, ICO2. Students No. of sections __11_____ will read philosophical text effectively, ICO3. Students will critically evaluate theories and concepts in philosophy, ICO4. Students will analyze arguments and conclusions made in philosophy). To facilitate ease of scoring, all items were keyed such that "agree" signified that the objective was met. **FINDINGS** The results indicated strong agreement with all of the statements pertaining to the GEO of the course (Overall GEO Mean=75% agreement). There was strongest agreement with statement #4, "This class helped me to apply philosophical methods and practices to current events" (79%)-this statement measured **GEO 5**-Integrate knowledge and skills in their major field and across disciplines. 71% of students agreed with statement #3, "This class helped me to analyze arguments and conclusions made in philosophy." In comparing GEO results with CO results, 75.5% of students agreed with the statements pertaining to the GEO, whereas 75% agreed with the statements

		dings") at 69%. The highest lev	Its summary was statement #6 vel of agreement was with state		•	
ACTION PLAN*	As the data indicates, more attention needs to be paid to the development of critical thinking skills, as well as student competencies in philosophical analysis and logic. To address this issue, the philosophy faculty agreed on several points: 1. Often, many of our students are coming to Queensborough with little or no basic training in the type of critical thinking, analytical, logical skills and training an introductory philosophy assumes. Faculty agreed that there needs to be more time spent in the classroom to bring our students "up to speed" regarding these skills. 2. Because all philosophy courses are "Writing Intensive" courses, instructors are often forced to spend quite a bit of time helping students with their writing assignments in class, often at the expense of developing the skills outlined in Action Plan item #1. Therefore, we believe that the college should					
	consider switching SS610 to a 3 credit/1 conference hour course to allow instructors the extra time at the end of each class session to give our students both group and individual instruction/conferencing so that they may reap the full benefit of introductory courses in philosophy.					
• TIMELINE for ACTION PLAN implementation*						
STATUS – degree to which students have met Gen. Ed. Outcome CHECK ONE	Excellent (4 points)	Good (3 points)	Marginal (2 points)	Poor (1 point)	Insufficient evidence (0 points)	
RATIONALE (Briefly explain rating above)						

^{*}Include this information in the Department's Year-End Report.

ASSESSMENT RESULTS FOR QCC EDUCATIONAL OUTCOME #5 - CH 127 INTRODUCTION TO COLLEGE CHEMISTRY FALL 2012

GEN E	GEN ED#5 – INTEGRATE KNOWLEDGE AND SKILLS IN THEIR PROGRAM OF STUDY					
QCC Example Outcomes:		Common Core Outcomes:				
a.	Create coherent, documented essays, presentations, or solutions to problems based on gathering, analyzing, and	Flexible Core: II – requirements for all categories 1. Gather, interpret, and assess information from a variety of sources and points of view. 2. Evaluate evidence and arguments critically or analytically. 3. Produce well-reasoned written or oral arguments using evidence to support conclusions. SEE ALSO ITEM #4 IN EACH OF THE FLEXIBLE CORE CATEGORIES:				
b.	comparing evidence from more than one perspective Demonstrate critical and creative thought by producing new arguments, art or solutions to complex	II. A. 4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring world cultures or global issues, including, but not limited to, anthropology, communications, cultural studies, economics, ethnic studies, foreign languages (building upon previous language acquisition), geography, history, political science, sociology, and world literature. II.B.4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the U.S. experience in its diversity, including, but not limited to, anthropology,				
C.	problems Analyze and compare evidence to support/refute different points of view on a particular topic	communications, cultural studies, economics, history, political science, psychology, public affairs, sociology, and U.S. literature II.D.4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the relationship between the individual and society, including, but not limited to, anthropology, communications, cultural studies, history, journalism, philosophy, political science, psychology, public affairs, religion, and sociology II.C.4				
d.	Complete sequential courses that use knowledge and skills from a previous course to	Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring creative expression, including, but not limited to, arts, communications, creative writing, media arts, music, and theater II.E.4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited				
e.	master the higher level course Complete a culminating assignment in a capstone course	to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies				
GEN ED OUTCOMES ADDRESSED IN ASSESSMENT:		a. Create coherent, documented essays, presentations, or solutions to problems based on gathering, analyzing, and comparing evidence from more than one perspective b. Demonstrate critical and creative thought by producing new arguments, art or solutions to complex problems				
		Flexible Core: II – requirements for all categories 1. Gather, interpret, and assess information from a variety of sources and points of view. 2. Evaluate evidence and arguments critically or analytically. 3. Produce well-reasoned written or oral arguments using evidence to support conclusions. II.E.4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies				
GRO No. of stu	MEASURABLE DATA UP SIZE: dents _221 tions _14	Students will answer five standardized questions as part of their final examination. All questions have been selected to assess particular learning outcomes for Introductory College Chemistry. The questions emphasize fundamental principles and theory of chemistry, the use of analytical and quantitative reasoning, and applying this knowledge in the context of health sciences and everyday life. The questions are health-related and require students to demonstrate mastery of basic gas laws, dimensional analysis, molar mass, and the units of concentration. The questions are multiple choice and were designed to identify common errors.				
		The following student learning outcomes addressed Gen. Ed. Objective#5:				
		1. Students will perform basic unit conversions using dimensional analysis, including problems on temperature, pressure and density. (Curricular Objectives 4, 5, 7 & 8, Table 5; Gen Ed Objectives 2, 3, & 5, Table 3) Learning outcome #1 was assessed in question #1.				

3. Students will be familiar with systematic chemical nomenclature of compounds, and with common names used in health-related fields. (Curricular Objectives 3 & 8, Table 5; Gen Ed Objective 5) Learning outcome #3 was assessed in Question #4.

4.Students will use the concepts of a mole and molar mass to perform calculations on the percent composition of compounds, and calculations on basic reaction stoichiometry, including percent yield. (*Curricular Objectives 4, 5 & 8, Table 5; Gen Ed Objectives 2, 3, & 5, Table 3*) Learning outcome #4 was assessed in question # 2.

5.Students will apply the concepts of the basic gas laws, including the law of partial pressure, to problems on gases. (*Curricular Objectives 3, 4, 5, 7 & 8, Table 5; Gen Ed Objectives 2, 3, & 5, Table 3*) Learning outcome #5 was assessed in question # 3.

6.Students will interpret mathematically common units and scales of concentration, such as parts per million, parts per billion, molarity, pH, and percentage for solutions and gaseous mixtures. (Curricular Objectives 3, 4, 5, 7 & 8, Table 5; Gen Ed Objectives 2, 3, & 5Table 3) Learning outcome #6 was assessed in Question # 4.

A correct response to Question 1 (medium difficulty) indicates that the student is able to perform basic unit conversions using dimensional analysis (the factor-label method). Approximately 50% of students were expected to answer correctly. Students taking CH 127 during Spring, Summer and Fall of year 2012 did not meet these expectations. A correct response to Question 2 (medium difficulty) indicates that the student is able to use the molar mass of a compound as the conversion factor between mass in grams and quantity of matter in moles. Approximately 60% of students were expected to answer correctly. Students taking CH-127 in Spring, Summer and Fall terms of year 2012 met or exceeded expectations for this question. A correct response to Question 3 (low difficulty) indicates that the student understands that the partial pressures of individual gases sum to the total pressure of a mixture. Approximately 70% of students were expected to answer correctly. Students taking CH-127 in Spring, Summer and Fall terms of year 2012 met or exceeded expectations for this question. A correct response to Question 4 (high difficulty) indicates that the student is able to perform calculations that relate the concentration and volume of a solution to the quantity of dissolved solute; the student also is able to interpret units of concentration commonly used in the health sciences. Approximately 40% of students were expected to answer correctly. Students taking CH-127 in Spring, Summer and Fall of year 2012 exceeded expectations for this question, and students taking the course in Spring 2011 nearly met expectations.

ACTION PLAN*

The results of the assessment will be disseminated to all instructors so they can adjust their courses to address areas of weakness. Future assessments will reveal how assessment and feedback from the results contribute to improved learning outcomes. Instructors will also be advised to compare the overall results of their students to both the expected scores based on the estimated difficulty of the assessment questions, and to the actual results across the department. If a group of students notably underperforms either the theoretical expectations or actual past results for a particular question, increased emphasis on the learning outcome(s) assessed by that question may be required. An important means to increase the average score of all students will be to reduce the number who score 20% or below (0 or 1 out of 5 questions). While the current format of the assessment quiz provides valuable information towards measuring student learning outcomes, future revisions of the quiz will attempt to assess only one learning outcome per question. These revisions will help pinpoint particular areas of weakness with greater precision, and therefore help instructors to appropriate emphasis on particular concepts and skills. We note that the last figure following Table 8D, above, shows gradual but consistent growth in the proportion of students in the regular school year who score at least 4 out of 5 correct on the assessment exam. The improvement in overall results since assessment began in Spring 2011 is statistically significant. The assessment process has, therefore, led to greater success in achieving our stated learning outcomes.

^{*}Include this information in the Department's Year-End Report.

GEN ED#5 – INTEGRATE KNOWLEDGE AND SKILLS IN THEIR PROGRAM OF STUDY **QCC Example Outcomes: Common Core Outcomes:** Create coherent, Flexible Core: II – requirements for all categories documented essays, 1. Gather, interpret, and assess information from a variety of sources and points of view. Evaluate evidence and arguments critically or analytically. presentations, or solutions Produce well-reasoned written or oral arguments using evidence to support conclusions. to problems based on SEE ALSO ITEM #4 IN EACH OF THE FLEXIBLE CORE CATEGORIES: gathering, analyzing, and comparing evidence from II. A. 4. more than one perspective Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring world cultures or global issues, including, but not limited to, anthropology, Demonstrate critical and communications, cultural studies, economics, ethnic studies, foreign languages (building upon previous language acquisition), geography, history, political science, sociology, and world creative thought by literature. producing new arguments, II.B.4. art or solutions to complex Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the U.S. experience in its diversity, including, but not limited to, anthropology, problems communications, cultural studies, economics, history, political science, psychology, public affairs, sociology, and U.S. literature Analyze and compare II.D.4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the relationship between the individual and society, including, but not limited to, evidence to support/refute different points of view on anthropology, communications, cultural studies, history, journalism, philosophy, political science, psychology, public affairs, religion, and sociology a particular topic II.C.4 Complete sequential Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring creative expression, including, but not limited to, arts, communications, creative writing, media arts, music, and theater courses that use knowledge and skills from II.E.4. a previous course to Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited master the higher level to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies course Complete a culminating assignment in a capstone course **GEN ED OUTCOMES ADDRESSED IN** QCC 5 ASSESSMENT: Create coherent, documented essays, presentations, or solutions to problems based on gathering, analyzing, and comparing evidence from more than one perspective b. Demonstrate critical and creative thought by producing new arguments, art or solutions to complex problems Analyze and compare evidence to support/refute different points of view on a particular topic Flexible Core: II - requirements for all categories Gather, interpret, and assess information from a variety of sources and points of view. 2. Evaluate evidence and arguments critically or analytically. Produce well-reasoned written or oral arguments using evidence to support conclusions. 3. II.D.4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the relationship between the individual and society, including, but not limited to, anthropology, communications, cultural studies, history, journalism, philosophy, political science, psychology, public affairs, religion, and sociology **EVIDENCE/ MEASURABLE DATA** Assignment#1 • GROUP SIZE: The students were each given the Street Law case packet on People v. Andrew Madison. The students were asked to complete the following assignment: No. of students _13____ No. of sections _____ 1. Choose to argue the case as the prosecuting attorney OR the defense attorney. Choose at least THREE pieces of evidence (from packet) to support your case. Present argument in essay form, with introduction and conclusion

	Assignment#2 Students were asked to view a fictional police crime drama based in the United States and write a thesis statement on how realistic they thought the crime drama was. The students were to argue their viewpoint using the knowledge of what they had learned in class and their own personal experiences. The following outcomes were assessed: LO1: Gather, interpret, and assess information from a variety of sources and points of view. LO2: Evaluate evidence and arguments critically or analytically. LO3: Produce well-reasoned written or oral arguments using evidence to support conclusions. LO4: Examine how an individual's place in society affects experiences, values, or choices.
FINDINGS	The assessment plan indicated that satisfactory results would be obtained if 65% of students achieved a measure of "good" or "outstanding." Unfortunately, this class suffered from high rates of absenteeism and only 13 papers were submitted for assignment one, and 12 papers submitted for assignment two. Based on this relatively small sample size, it appears that satisfactory results were only obtained for two of the four learning outcomes.
ACTION PLAN*	Overall, the two assignments illustrated that students tend to do well formulating well-reasoned arguments to support their points of view, but do struggle with using evidence effectively to support these arguments. This assessment exercise highlighted the need to review with students how clearly cited sources of evidence can greatly strengthen a position. I also need to develop more writing assignments that encourage the expression of one's opinions regarding the American criminal justice system.

^{*}Include this information in the Department's Year-End Report.