General Education Assessment Plan

College of Arts and Sciences

University of Michigan-Flint

Current Assessment Plan
February 2006

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MISSION STATEMENT

The College of Arts & Sciences, in providing the General Education Program to students at the University of Michigan-Flint, fulfills an important academic role in the student's total educational experience. "The General Education Program is designed to provide training in reasoning and critical thinking, and to introduce the fundamental disciplines through which people seek to understand themselves, their surroundings, and cultures different from their own" (*2005-2007 UM-Flint Catalog*, 71). In accordance with our institution's mission, the College of Arts & Sciences, through its General Education Program and various concentrations, aims at educating all students "in an environment that emphasizes literacy, critical thinking, and humanistic and scientific inquiry" (*CAS Mission Statement*).

The General Education Program, which comprises almost half (50 credits) of the student's required coursework for graduation, consists of requirements in English Composition, Fine Arts, Humanities, Natural Sciences, Social Sciences, Area Options and Additional Courses. For a Bachelor's of Arts Degree, students must complete two semesters of a Foreign Language or its equivalent. This varied range of required coursework offers students the opportunity to acquire the necessary knowledge base and skills to become effective lifelong learners, as well as promotes and guides "their development into thoughtful and productive citizens and leaders" (*UM-Flint Mission Statement*).

GENERAL EDUCATION GOALS

As approved by the Governing Faculty of the College of Arts and Sciences, the General education program has the following 17 goals.

Knowledge

1. Enhancing one's understanding of one's position within and relationship to the global community
2. Enhancing understanding of diversity as a national and global phenomenon with a particular focus on the American experience.
3. Understanding the evolution of ideas and range of expressions through the humanities and the arts
4. Understanding scientific processes and concepts and their relation to social, natural, and physical phenomenon.

Perspectives

5. Students will recognize the value and importance of learning.
6. Students will develop an appreciation for the importance and value of a broad range of disciplines.
7. Students will develop an appreciation for cultural, racial, and gender differences, similarities and contributions at both national and global levels.
8. Students will recognize the value and importance of ethical decision-making.
9. Students will appreciate the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge.

Reasoning

10. Students will demonstrate the ability to take reasoned positions on issues of importance and support those positions with evidence.
11. Students will demonstrate the ability to apply reasoning to solve authentic problems through experimentation, data collection, and induction of principles.
12. Students will demonstrate the ability to apply quantitative reasoning to problem-solving.
13. Students will demonstrate the ability to critically examine issues that affect their world.

Skills

14. Students will demonstrate proficiency and clarity in oral and written expression.
15. Students will demonstrate fundamental numerical skills.
16. Students will demonstrate the ability to analyze and interpret information from a variety of resources, including data, primary sources, and secondary materials.
17. Students will demonstrate the ability to use computer-related technologies and applications appropriate to their disciplines.

The development of the Assessment Plan for General Education occurred between April of 2002 and September 2005. The first component of the assessment plan to be implemented was in the area of Written Communication (approved by CAASP in April 2002). In October of that same year, assessment plans for Critical Thinking and Scientific & Quantitative Reasoning were approved by AAC. The third amendment to the General Education program established assessments in the area of Diversity (approved by AAC in November of 2003). The final component to the General Education Assessment Plan to be developed was in the areas of Arts & Humanities (approved by AAC in September 2005). Table 1 presents the coverage of the 17 General Education Goals by component of the General Education Assessment Plan.

In addition, work was completed in the fall of 2005 to allow students to complete the assessments on-line with the intension of increasing participation. Currently, students complete all direct assessments in the areas of Critical Thinking, Scientific & Quantitative Reasoning, Diversity, and Arts & Humanities on BlackBoard. The College also uses this on-line interface to collect our indirect measures for Written Communication, Critical Thinking, Scientific & Quantitative Reasoning, and Diversity. Table 2 summarizes the mode of data collection by area of General Education Assessment.

Table 1: Coverage of the 17 General Education Goals

General Education Areas and Goals		Portion of General Education
Knowledge		**Assessment Plan**
1	Enhancing one's understanding of one's position within and relationship to the global community	Diversity (DIV)
2	Enhancing understanding of diversity as a national and global phenomenon with a particular focus on the American experience.	Diversity (DIV)
3	Understanding the evolution of ideas and range of expressions through the humanities and the arts	Arts & Humanities (A&H)
4	Understanding scientific processes and concepts and their relation to social, natural, and physical phenomenon.	Scientific & Quantitative Reasoning (SQR)
Perspectives		
5	Students will recognize the value and importance of learning.	
6	Students will develop an appreciation for the importance and value of a broad range of disciplines.	
7	Students will develop an appreciation for cultural, racial, and gender differences, similarities and contributions at both national and global levels.	Diversity (DIV)
8	Students will recognize the value and importance of ethical decision-making.	Scientific & Quantitative Reasoning (SQR)
9	Students will appreciate the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge.	Scientific & Quantitative Reasoning (SQR)
Reasoning		
10	Students will demonstrate the ability to take reasoned positions on issues of importance and support those positions with evidence.	Critical Thinking (CT)
11	Students will demonstrate the ability to apply reasoning to solve authentic problems through experimentation, data collection, and induction of principles.	Critical Thinking (CT) and Scientific & Quantitative Reasoning (SQR)
12	Students will demonstrate the ability to apply quantitative reasoning to problem-solving.	Critical Thinking (CT) and Scientific & Quantitative Reasoning (SQR)
13	Students will demonstrate the ability to critically examine issues that affect their world.	Critical Thinking (CT)
Skills		
14	Students will demonstrate proficiency and clarity in oral and written expression.	Written & Oral Communication (WOC)
15	Students will demonstrate fundamental numerical skills.	Scientific & Quantitative Reasoning (SQR)
16	Students will demonstrate the ability to analyze and interpret information from a variety of resources, including data, primary sources, and secondary materials.	Written & Oral Communication (WOC)
17	Students will demonstrate the ability to use computer-related technologies and applications appropriate to their disciplines.	

Table 2: Summary of Data Collection Methods

General Education Component	Direct Measure	Indirect Measures
Writing	student papers	On-Line Student Survey and results from focus group discussion
Critical Thinking	On-Line essay	On-Line Student Survey and results from focus group discussion
Scientific & Quantitative Reasoning	On-Line examination	On-Line Student Survey and results from focus group discussion
Diversity	On-Line essay	On-Line Student Survey and results from focus group discussion
Arts & Humanities	On-Line essay	On-Line Student Survey and results from focus group discussion

ASSESSMENT FOR ORAL AND WRITTEN COMMUNICATION

As part of the College's mission to prepare students "for a future of meaningful and productive work" (*CAS Mission Statement*), effective communication skills are essential for the student's academic and professional success.

EDUCATIONAL OUTCOMES

Students will demonstrate proficiency and clarity in oral and written communication. Specifically, upon graduation from the University of Michigan-Flint, all students should be capable of the following:

a remaining focused on a specific purpose and central idea in writing
b writing an introduction and conclusion that relates to content
c writing ideas in a logical and organized sequence
d providing clearly written, well described, statistical and/or textual evidence
e incorporating relevant evidence that logically supports the thesis
f using language and style appropriate for audience addressed in writing
g adhering to appropriate documentation style in writing
h limiting surface feature errors (i.e. grammar and punctuation) in writing

ASSESSMENT METHODS

Essay Assessment (Direct Measure): Since general education encompasses all educational work a student completes while attending the University, the College of Arts and Sciences (CAS) will measure student outcomes for Oral and Written Communication in two places: 1) completion of the composition requirement, and 2) senior focus groups.

Completion of the Composition Requirement: A CAS coordinator will be responsible for working with composition faculty to randomly select 200 students in English 112, the final course of the composition requirement. All students write a research project during the course, and it will be used for measurement as described below.

The coordinator will be responsible for removing all identifying markers from papers to ensure anonymity of the students. Then the coordinator will gather a group of at least 10 faculty, representing multiple disciplines on campus, for an eight-hour assessment day. The assessment procedure for the post composition assessment and the senior level writing assessment are described below.

Essay Assessment:

A committee, consisting of faculty across disciplines, will assess the post composition texts using scoring sheet and narrative rubric to determine students' level of success, from "Unacceptable" to "Strong" (Appendix 1 and 2). The rubric and a set of "specimen work products" will be used to achieve inter-rater reliability. Any identifying information, grades, and comments will have been removed so the committee will not be biased.

After the essays are assessed, readers will review individual cases in which there are scoring discrepancies (differences in more than one total score rating). The two original readers and the assessment coordinator will come to a consensus on the score for each case. The committee will compile the assessment scores, determine how successful the CAS's goals are being met, and report back to the CAS faculty in the first Fall faculty meeting.

Focus Groups (Indirect Measure): The CAS assessment coordinator will arrange to hold focus groups of graduating seniors. The volunteers will receive food for their participation.

Written Responses: Students will be asked to write a response to open-ended questions and closed-ended questions before the focus group (see questions in Appendix 3 and 4). This procedure will very important in soliciting responses from students who feel uncomfortable providing information in front of peers.

Focus Group Meeting: Two faculty members will attend the meeting to ask guiding questions, allowing the conversation to shift with student interest. An interview schedule appears in Appendix 5. These faculty will record the proceedings and the meeting will be audio recorded. Both the faculty records and the audio tapes will used in conjunction with

the students' written responses to triangulate the findings of this indirect measure of student experiences with writing at the University of Michigan-Flint Recurrent or emergent themes will be used to guide future focus groups and assist in the interpretation of the direct measures of student writing ability. In short, the focus group will facilitate and better inform the feedback loop in the assessment process.

GOALS: DIRECT MEASURES

14a The essays evaluated will provide evidence that students can write ideas in a logical and organized sequence. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14a.

14b The essays evaluated will provide evidence that students can write an introduction and conclusion that relates to content. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14b.

14c The essays evaluated will provide evidence that students can remain focused on a specific purpose and central idea in writing. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14c.

14d The essays evaluated will provide evidence that students can provide clearly written, well described, statistical and/or textual evidence. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14d.

14e The essays evaluated provide evidence that students can incorporate relevant evidence that logically supports the thesis. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14e.

14f The essays evaluated will provide evidence that students can use language and style appropriate for audience addressed. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14f.

14g The essays evaluated will provide evidence that students can adhere to appropriate documentation style. CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14g.

14h The essays evaluated will provide evidence that students can limit surface feature errors (i.e. grammar and punctuation). CAS expects 75% of the essays read to receive a 3 or higher on Criteria 14h.

GOALS: INDIRECT MEASURES

14a 75% of the students will perceive their ability to write ideas in a logical and organized sequence to be adequate or more than adequate, Criteria 14a.

14b 75% of the students will perceive their ability to write an introduction and conclusion that relates to content to be adequate or more than adequate, Criteria 14b.

14c 75% of the students will perceive their ability to remain focused on a specific purpose and central idea in writing to be adequate or more than adequate, Criteria 14c.

14d 75% of the students will perceive their ability to provide clearly written, well described, statistical and/or textual evidence to be adequate or more than adequate, Criteria 14d.

14e 75% of the students will perceive their ability to incorporate relevant evidence that logically supports the thesis to be adequate or more than adequate, Criteria 14e.

14f 75% of the students will perceive their ability to use language and style appropriate for audience addressed to be adequate or more than adequate, Criteria 14f.

14g 75% of the students will perceive their ability to adhere to appropriate documentation style to be adequate or more than adequate, Criteria 14g.

14h 75% of the students will perceive their ability to limit surface feature errors (i.e. grammar and punctuation) to be adequate or more than adequate, Criteria 14h.

ASSESSMENT FOR CRITICAL THINKING

Development of critical thinking skills is an essential component of the College's mission to prepare students "create and sustain a community of lifelong learners in an environment that emphasizes literacy, critical thinking, and humanistic and scientific inquiry" (*CAS Mission Statement*).

EDUCATIONAL OUTCOMES

Students will demonstrate an ability to think critically (*General Education Objectives 10 through 13*). Specifically, upon graduation from the University of Michigan-Flint, students should be capable of the following:

10 Students will demonstrate the ability to take reasoned positions on issues of importance and support those positions with evidence. Specifically, students will be expected to:
- 10a. clearly state a conclusion as to the reasonableness of the argument in the author's essay.
- 10b. provide specific reasons to support their conclusion
- 10c. ensure that the reasons provided are relevant to the student's conclusion
- 10d. select reasons that give adequate support for the student's conclusion

11 Students will demonstrate the ability to apply reasoning to solve authentic problems through experimentation, data collection, and induction of principles. More precisely, students will be expected to:
- 11a. accurately interpret statistical data in charts and/or tables.
- 11b. draw appropriate conclusions from the statistical data in charts and/or tables.

12 Students will demonstrate the ability to apply quantitative reasoning to problem-solving. Here we expect students to:
- 12a. demonstrate an understanding of what role the statistical (quantitative) evidence plays in the author's argument.
- 12b. demonstrate an ability to critically assess the relevance of the quantitative evidence.
- 12c. demonstrate an ability to critically assess the accuracy of the quantitative evidence.

13 Students will demonstrate the ability to critically examine issues that affect their world. This Student Outcome will be measured by students' ability to:

- 13a. identify the conclusion (the main point) of the author's essay.
- 13b. identify the reason(s) (the evidence) offered by the author in support of that conclusion.
- 13c. identify an implication (or implications) of accepting the author's proposal.
- 13d. evaluate the implications of accepting the author's proposal.
- 13e. provide reason(s) to support their assessment of the implication of the author's proposal.

ASSESSMENT METHODS

Essay Assessment (Direct Measure): Since the cultivation of critical thinking occurs throughout a student's career at the University of Michigan-Flint, the College of Arts and Sciences (CAS) will measure student outcomes for critical thinking in two places: 1) Students enrolled in CAS 101, "Introduction to the University of Michigan-Flint," will write an analytical essay, and 2) a random sample of graduating seniors who agree to participate in our assessment activity will also write an analytical essay.

Both incoming students and a random sample of exiting students will write a brief analytical essay. Each student will be provided with a brief (300-400 word) essay recommending that the reader undertake an easily identifiable course of action (such as to vote for a particular proposition or person, to accept a viewpoint or belief, or to endorse a particular proposal or value). This essay could be a newspaper or journal editorial. Ideally, the essay would use statistical evidence for support of its conclusion. Students will write a brief (approximately 150-200 words) essay critically analyzing the argument in this editorial essay. An example essay appropriate for use is included in Appendix 6.

A committee, consisting of faculty across disciplines, will assess both the CAS 101 analytical essays and the essays from the random sample of graduating seniors. To specifically measure the critical thinking of our incoming and exiting students, faculty conducting the assessment will employ a scoring sheet and narrative rubric specifically addressing the 14 facets of our measurement of critical thinking (Appendix 7 and 8).

Focus Groups (Indirect Measures): The CAS assessment coordinator will arrange to have a set of graduating senior focus groups and a faculty focus group. The students will be asked to indicate how well they believe they can think critically (Appendix 9). In addition to these survey results, each group will be invited to comment at length on the issue of critical thinking and the University's General Education program.

GOALS: DIRECT MEASURES

10a. The essays evaluated will provide evidence that students can clearly state a conclusion as to the reasonableness of the argument in the author's essay. CAS expects over half of the essays read to receive a 3 or higher on Criteria 10a.
10b. The essays evaluated will provide evidence that students can provide specific reasons to support their conclusion. CAS expects over half of the essays read to receive a 3 or higher on Criteria 10b.
10c. The essays evaluated will provide evidence that students can ensure that the reasons provided are relevant to the student's conclusion. CAS expects over half of the essays read to receive a 3 or higher on Criteria 10c.
10d. The essays evaluated will provide evidence that students can select reasons that give adequate support for the student's conclusion. CAS expects over half of the essays read to receive a 3 or higher on Criteria 10d.

11a. The essays evaluated will provide evidence that students can accurately interpret statistical data in charts and/or tables. CAS expects over half of the essays read to receive a 3 or higher on Criteria 11a.
11b. The essays evaluated will provide evidence that students can draw appropriate conclusions from the statistical data in charts and/or tables. CAS expects over half of the essays read to receive a 3 or higher on Criteria 11b.

12a. The essays evaluated will provide evidence that students can demonstrate an understanding of what role the statistical (quantitative) evidence plays in the author's argument. CAS expects over half of the essays read to receive a 3 or higher on Criteria 12a.
12b. The essays evaluated will provide evidence that students can demonstrate an ability to critically assess the relevance of the quantitative evidence. CAS expects over half of the essays read to receive a 3 or higher on Criteria 12b.
12c. The essays evaluated will provide evidence that students can demonstrate an ability to critically assess the accuracy of the quantitative evidence. CAS expects over half of the essays read to receive a 3 or higher on Criteria 12c.

13a. The essays evaluated will provide evidence that students can identify the conclusion (the main point) of the author's essay. CAS expects over half of the essays read to receive a 3 or higher on Criteria 13a.
13b. The essays evaluated will provide evidence that students can identify the reason(s) (the evidence) offered by the author in support of that conclusion. CAS expects over half of the essays read to receive a 3 or higher on Criteria 13b.
13c. The essays evaluated will provide evidence that students can identify an implication (or implications) of accepting the author's proposal. CAS expects over half of the essays read to receive a 3 or higher on Criteria 13c.
13d. The essays evaluated will provide evidence that students can evaluate the implications of accepting the author's proposal. CAS expects over half of the essays read to receive a 3 or higher on Criteria 13d.

13e. The essays evaluated will provide evidence that students can provide reason(s) to support their assessment of the implication of the author's proposal. CAS expects over half of the essays read to receive a 3 or higher on Criteria 13e.

GOALS: INDIRECT MEASURES

10a. Over half of the students will perceive their ability to clearly state a conclusion as to the reasonableness of the argument in the author's essay to be "good" or "outstanding."
10b. Over half of the students will perceive their ability to provide specific reasons to support their conclusion to be "good" or "outstanding."
10c. Over half of the students will perceive their ability to ensure that the reasons provided are relevant to the student's conclusion to be "good" or "outstanding."
10d. Over half of the students will perceive their ability to select reasons that give adequate support for the student's conclusion to be "good" or "outstanding."

11a. Over half of the students will perceive their ability to accurately interpret statistical data in charts and/or tables to be "good" or "outstanding."
11b. Over half of the students will perceive their ability to draw appropriate conclusions from the statistical data in charts and/or tables to be "good" or "outstanding."

12a. Over half of the students will perceive their ability to demonstrate an understanding of what role the statistical (quantitative) evidence plays in the author's argument to be "good" or "outstanding."
12b. Over half of the students will perceive their ability to demonstrate an ability to critically assess the relevance of the quantitative evidence to be "good" or "outstanding."
12c. Over half of the students will perceive their ability to demonstrate an ability to critically assess the accuracy of the quantitative evidence to be "good" or "outstanding."

13a. Over half of the students will perceive their ability to identify the conclusion (the main point) of the author's essay to be "good" or "outstanding."
13b. Over half of the students will perceive their ability to identify the reason(s) (the evidence) offered by the author in support of that conclusion to be "good" or "outstanding."
13c. Over half of the students will perceive their ability to identify an implication (or implications) of accepting the author's proposal to be "good" or "outstanding."
13d. Over half of the students will perceive their ability to evaluate the implications of accepting the author's proposal to be "good" or "outstanding."
13e. Over half of the students will perceive their ability to provide reason(s) to support their assessment of the implication of the author's proposal to be "good" or "outstanding."

ASSESSMENT FOR SCIENTIFIC AND QUANTITATIVE REASONING

The Development of scientific and quantitative reasoning is an essential component of the General Education Program of the College of Arts and Sciences. It is the College's mission to educate students "in an environment that emphasizes literacy, critical thinking, and humanistic and scientific inquiry" (*CAS Mission Statement*).

EDUCATIONAL OUTCOMES

In fulfilling the Scientific and Quantitative Reasoning aspects of the General Education Program (Goals 4, 11, 12 and 15), students will demonstrate aptitude in the following four general areas:

4 Knowledge: understand scientific processes and concepts and their relation to social, natural and physical phenomenon. Specifically, students will be expected to:
- 4a Construct a hypothesis.
- 4b Specify logical "control" variables.

11 Reasoning: demonstrate the ability to apply reasoning to solve authentic problems through experimentation, data collection and induction of principles.
- 11a Indicate a specific statistical procedure to test a hypothesis.

12 Reasoning: demonstrate the ability to apply quantitative reasoning to problem solving.
- 12a Work a basic word problem.
- 12b Work a basic statistics problem.
- 12c Construct and/or read a graph.

15 Skills: demonstrate fundamental numerical problem solving.
- 15a Apply a function formula.
- 15b Calculate a percent.
- 15c Compute a proportion.
- 15d Perform unit conversion.
- 15e Solve a one-variable algebraic problem.
- 15f Manipulate a formula.

ASSESSMENT METHODS

Student Examination (Direct Measure): The acquisition of Scientific and Quantitative Reasoning skills occurs throughout a student's career at the University of Michigan-Flint. Accordingly, the College of Arts and Sciences (CAS) will measure student outcomes for Scientific and Quantitative Reasoning at two points of time. 1) The College of Arts and Sciences will pilot the use of the Scientific and Quantitative Reasoning examination on incoming students enrolled in CAS 101, "Introduction to the University of Michigan-Flint." 2) For exit level data,

CAS will administer the examination measuring Scientific and Quantitative Reasoning on a random sample of graduating seniors who agree to participate in our assessment activity.

Both incoming students and a random sample of exiting students will be given the same examination. An example of this examination is included in Appendix 10. A committee, consisting of faculty across disciplines, will assess both the CAS 101 exams and the examinations from the random sample of graduating seniors. The committee will produce an itemized summary of the results (see Appendix 11 for a worksheet to tally the exam results), including the number of completed answers, the number of correct answers, and the number of incorrect answers.

Focus Groups (Indirect Measures): The CAS assessment coordinator will arrange to have a set of graduating senior focus groups and a faculty focus group. The students will be asked to comment on how well they have acquired scientific and quantitative reasoning skills while at the University of Michigan-Flint (Appendix 12).

GOALS: DIRECT MEASURES

The Program Goals reflect both the percentage of students completing the question and whether the question was answered correctly. Given the time constraints of the examination, we expect all students to complete the first five questions and significantly fewer students completing the questions at the end of the examination. At the aggregate level, we expect that majority of the students will score above a 50 percent.

	PROGRAM GOALS	
Examination Question and General Education Goal	**Percent Completed**	**Percent Correct**
Q1. Given that the average morning temperature in degrees Fahrenheit at a certain location t hours after 2:00 a.m. on June 1 is given approximately by F(t) = 40 + t, the approximate temperature at 9 a.m. on June 1 should be (Multiple Choice Question, **Goal 15a**)	100	75
Q2. If the cost of producing x hundred units of a product is C(x) = x(2 - 0.01x) hundred dollars, what is the cost to produce 2000 units? (Multiple Choice Question, **Goal 15a**)	100	75
Q3. The number of forest fires in California was about 7,500 in 1999 and about 5,000 in 2000. This represents what percentage decrease in fires (to the nearest percent)? (Multiple Choice Question, **Goal 15b**)	100	75
Q4. In a sample of 25 fish of a particular species from an inland lake, 3 showed traces of sickness and/or deformity. If the total number of fish of that species in the lake is estimated to be 1000, how many could be expected to be sick and/or deformed? (Multiple Choice Question, **Goal 15c**)	100	75
Q5. A truck moving 50 miles per hour is moving how many feet per second? (There are 5280 feet in a mile.) (Multiple Choice Question, **Goal 15d**)	100	75
Q6. How many meters are there in 3.2 kilometers? (**Goal 15d**)	100	75
Q7. Given that the formula for converting degrees Fahrenheit (°F) to degrees Celsius (°C) is F – 32 = 9C/5 or (9/5)C, convert 32°C to degrees Fahrenheit. (**Goal 15e**)	90	75

Examination Question and General Education Goal	PROGRAM GOALS: Percent Completed	PROGRAM GOALS: Percent Correct
Q8. A ball's height above ground is given by $s(t) = -16t^2 + 48t + 20$. When does it reach its highest point? (**Goal 15e**)	90	75
Q9. If force is mass times acceleration (F = ma), does the force increase or decrease if the mass is tripled and the acceleration is halved? (**Goal 15f**)	90	75
Q10. A hotel can rent 100 rooms at $60 per night for a total revenue of $6000, but finds that for each $5 increase in rent, occupancy will drop by3 units. Find the revenue when the rooms are rented for $70 per night. (**Goal 12a**)	80	75
Q11. Calculate the mean, median, and range for the data {1, 3, 3, 5, 8, 16}. (**Goal 12b**)	80	75
Q12. Table 1 below presents the number of fires in California in two years, 2000 and 1999. The table also reports the number of acres burned in these two years. Select an appropriate style of graph for all the data and construct the graph below Table 1.	80	75

Table 1: Fires and Effected Acres in California, 2000-1999

	Fires	Acres
2000	5,177	72,717
1999	7,562	285,272
5 year average	6,692	157,868

Construct your graph here: (**Goal 12c**)

Q13. Referring again to the fire data presented in Table 1, was 1999 or 2000 a better year for fires? Justify your response. (**Goal 12c**)	80	75
Q14. From the data in Table 1 or your graph, how many fires would you predict for 2001? Justify your answer. (**Goal 12c**)	80	75
Q15. Imagine that you have data on cardiovascular risk factors as well as socio-economic data on 184 randomly selected individuals within Genesee County. Specifically, you have data on Systolic Blood Pressure (mm hg), Total Cholesterol (mg/dl) and HDL Cholesterol (mg/dl) Age, Sex, and Income. Construct a causal hypothesis that is consistent with these variables. (**Goal 4a**)	70	75
Q16. Using the imaginary data set in Question 15, identify variables that would be important to "control for" in the testing of the hypothesis you derived in Question 15. (**Goal 4b**)	70	75
Q17. Finally, what statistical tests would you employ to find support for your hypothesis? (**Goal 4b**)	70	75

GOALS: INDIRECT MEASURES

- 50% of the students will perceive their ability to apply a function formula (goal 15a) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident.
- > 50% of the students will perceive their ability to calculate a percent (goal 15b) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to compute a proportion (goal 15c) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to perform a unit conversion (goal 15d) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..

- > 50% of the students will perceive their ability to solve a one-variable algebraic problem (goal 15e) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to manipulate a formula (goal 15f) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to work a basic word problem (goal 12a) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to work a basic statistics problem (goal 12b) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to construct and/or read a graph (goal 12c) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to construct a hypothesis (goal 4a) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to specify logical "control" variables (goal 4b) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..
- > 50% of the students will perceive their ability to indicate a specific statistical procedure to test a hypothesis (goal 4b) to be 3 or above on a 1-5 scale where 1=not confident at all and 5=very confident..

ASSESSMENT FOR UNDERSTANDING DIVERSITY

The Mission Statements for both the University and the College of Arts and Sciences underscore the importance of fostering an understanding and appreciation of diversity. "The mission of the University of Michigan-Flint is to be the leading university in our region by:… Promoting respect and understanding of human and cultural diversity." (*UM-Flint, Mission Statement*) Through its discipline specific academic programs, as well as its General Education program, the College of Arts and Sciences will "promote and defend academic freedom, diversity, equality and justice." (*CAS Mission Statement*)

EDUCATIONAL OUTCOMES

The broad goal of increasing an awareness and appreciation of diversity is captured by the following General Education Goals:

1. Enhancing one's understanding of one's position within and relationship to the global community.

2. Enhancing understanding of diversity as a national and global phenomenon with a particular focus on the American experience.

7. Students will develop an appreciation for cultural, racial, and gender differences, similarities and contributions at both national and global levels

In measuring student learning with respect to diversity, the College of Arts and Sciences conceives such an understanding and appreciation as having two basic dimensions. The first is the breadth of the student's conception of diversity. Although our society directs much attention

towards understanding and appreciating racial and ethnic diversity, the concept encompasses many other differences among people. In a campus proud of its "nontraditional" student population, age is an additional dimension of diversity as are the following: sex, gender, sexual orientation, disability, and religion.

The second dimension of a student's appreciation and understanding of diversity that the College of Arts and Sciences wishes to measure is developmental. Beginning from the most basic level, students must recognize the concept of diversity as being legitimate. If a student writes that an understanding and appreciation of diversity is nothing but "being PC (Politically Correct)," then clearly this student does not recognize the legitimacy of diversity as a concept. Once accepted, students may view diversity at an instrumental level. That is, understanding and appreciating diversity are means to an end, though not necessarily ends in themselves. For example, students may wish to obtain employment in a Fortune 500 company. Seeing how many such corporations have publicly stated their support for affirmative action in college admissions, students may see an understanding and appreciation for diversity as a way to acquire a particular job. Moving beyond the instrumental level, the College of Arts and Sciences hopes that students will recognize that diversity is important because it allows them to see the world from a perspective different than their own. It is our belief that such empathy is a necessary condition for creating and sustaining a just and equitable society. However, a perceptual understanding and appreciation is not a sufficient condition for the promotion of equality and justice. It is also crucial that people interact in substantive activities with individuals different from themselves. Through such interaction, students will come to recognize and reject hierarchical conceptions of diversity. At the root of such hierarchical conceptions of diversity is the notion that one race, gender, other group is "superior" and that greater empathy and interactions should serve to make everyone "more like" the dominant or powerful group in a society. It is therefore vitally important that students recognize the fallacies and dangers of such conceptions of diversity. Ultimately, the highest level of understanding and appreciation of diversity occurs when students challenge barriers to understanding and appreciating diversity or actively engage in behaviors that "promote and defend… diversity."

Given the breadth and developmental dimensions to an understanding and appreciation of diversity described above, upon graduation from the University of Michigan-Flint, students should be capable of:

- stating the meaning of diversity. (Goal 2)

- identifying the vast mosaic of human diversity, both within our society and at a global level of analysis (Goal 2).

- articulating the importance of diversity – working from its basic acceptance, through the recognition of the instrumental, perceptual, and affective benefits of understanding and appreciating diversity. Ultimately, students should reject hierarchical conceptions of diversity, and challenge barriers to the understanding and appreciation of diversity or actively engage in behaviors to "promote and defend… diversity." (Goal 7).

ASSESSMENT METHODS

Essay Assessment (Direct Measure): Since the enhancement of an understanding and appreciation of diversity occurs throughout a student's career at the University of Michigan-Flint, the College of Arts and Sciences (CAS) will measure student outcomes for diversity in two places: 1) Students enrolled in CAS 101, "Introduction to the University of Michigan-Flint," will write an essay on diversity, and 2) a random sample of graduating seniors who agree to participate in our assessment activity will write an exit essay.

Both incoming students and the random sample of exiting students will write a brief essay addressing 4 specific issues.

- Define diversity.
- Identify multiple facets or dimensions of diversity.
- Relate any personal experiences that have contributed to your understanding of diversity.
- Explain why an institution of higher education would have a "compelling case" to promote diversity on its campus.

An example of this assignment is included in Appendix 13. A committee, consisting of faculty across disciplines, will assess both the CAS 101 essays and the essays from the random sample of graduating seniors. To specifically measure the students understanding and appreciation of diversity, faculty conducting the assessment will employ three basic rubrics addressing the three diversity related general education goals (Appendix 14).

Focus Groups & Exit Survey (Indirect Measures): The CAS assessment coordinator will arrange to have a set of graduating senior focus groups. The students will be asked to indicate how and the extent to which their experiences at the University of Michigan-Flint enhanced an understanding and appreciation for diversity. Students will also be asked to complete a survey addressing issues of diversity (Appendix 15)

GOALS: DIRECT MEASURES

2 The essays evaluated will provide evidence that students can clearly identify multiple dimensions of diversity. CAS expects over half of the essays read to identify 3 or more groups.

2a. The essays evaluated will provide evidence that students *recognize* diversity as a legitimate concept. CAS expects three-quarters of the essays read will accept diversity as a valuable concept.

2b. The essays evaluated will provide evidence that students recognize the *instrumental* value of diversity. CAS expects over two-thirds of the essays read will recognize the instrumental value of diversity.

2c. The essays evaluated will provide evidence that students have enhanced their *perspective* on the world as a result of an understanding and appreciation of diversity. CAS expects half of the essays read will indicate an enhancement in the student's perspective

2d. The essays evaluated will demonstrate a student's understanding and appreciation of diversity through their *social interactions* with people different from themselves. CAS expects half of the essays read will report such social interaction.

2e. The essays evaluated will provide evidence that students identify and reject *hierarchical* conceptions of diversity. CAS expects one-quarter of the essays read will recognize and reject hierarchical conceptions of diversity.

2f. The essays evaluated will provide evidence that students have challenged barriers to understanding and appreciating diversity or have actively engaged in behaviors that "promote and defend… diversity." CAS expects one-quarter of the essays read will challenge barriers to understanding and appreciating diversity or will demonstrate behaviors that "promote and defend… diversity."

1 In considering both the student's understanding and appreciation of diversity as well as the scope of that understanding, half of the students will achieve a score of 2 or better in the overall assessment of the essay.

GOALS: INDIRECT MEASURES

7a. 75 % of the students will have voiced an opinion about a controversial issue(s).

7b. 60 % of the students will have personally sought information that addresses issues of diversity.

7c. 50 % of the students will have become personally involved in a discussion/debate with someone who is different from them selves.

7d. 50 % of the students will have made friends with students whose academic/major interests differ from theirs.

7e. 40 % of the students will have attended an informational, session, talk, or meeting which addressed issues of diversity, such as race/ethnicity, women's issues, sexual orientation, etc.

7f. 40 % of the students will have participated in serious discussions with students whose religious beliefs, life philosophies, or personal values differ from their own.

7g. 40 % of the students will have given advice, information, or assistance to someone who is different from them selves.

7h. 50 % of the students will have received advice, information, or assistance to someone who is different from them selves.

7i. 50 % of the students will have developed an awareness of different cultures and ways of life in the United States.

7j. 50 % of the students will have developed an awareness of people and values from outside the United States.

7k. At least half of the students will rate the campus climate for individuals of different racial/ethnic backgrounds as relaxed, friendly, tolerant, comfortable, and socially integrated.

7l. At least half of the students will rate the campus climate for male/female relations as relaxed, friendly, tolerant, comfortable, and socially integrated (answer 4 or 5).

7m. At least half of the students will rate the campus climate for individuals of different sexual orientation as relaxed, friendly, tolerant, comfortable, and socially integrated (answer 4 or 5).

7n. At least half of the students will rate the campus climate for individuals of different religious groups as relaxed, friendly, tolerant, comfortable, and socially integrated (answer 4 or 5).

7o. At least half of the students will rate the campus climate for individuals of different age groups as relaxed, friendly, tolerant, comfortable, and socially integrated (answer 4 or 5).
7p. At least half of the students will rate the campus climate for individuals with disabilities as relaxed, friendly, tolerant, comfortable, and socially integrated (answer 4 or 5).

ASSESSMENT FOR ARTS & HUMANITIES

Cultivating an understanding and appreciation of the fine arts and humanities is an essential component of the College's mission to "create and sustain a community of lifelong learners in an environment that emphasizes literacy, critical thinking, and humanistic and scientific inquiry" (*CAS Mission Statement*).

EDUCATIONAL OUTCOMES

Students will demonstrate an ability to thoughtfully reflect on the ethical dimensions of the human condition through a comparative analysis of two pieces of human creativity. Specifically, upon graduation from the University of Michigan-Flint, students should be capable of the following:

Understanding the evolution of ideas and range of expressions through the arts and humanities. Specifically, students will be expected to:

- identify the social and historical contexts of these creative works and how do these examples of human creativity reflect their contexts.
- discuss the evolutionary trajectory in artistic expression seen when you compare the two works.
- describe how the works portray tragedy and triumph.
- articulate how the works address the common themes of "hope dies last" and "despair does not rule" where applicable.

Demonstrating that they recognize the value and importance of ethical decision-making. More precisely, students will be expected to:

- Describe, where applicable, how these works comment, or do not comment, on prejudice and what is the relevance of prejudice in relation to the historical contexts.
- comment on the ethical dimensions they perceive in these works.

Appreciating the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge. Here we expect students to:

- identify the fundamental elements within the creative works and how are they used to present human emotion.
- describe how the materials or content are used to make the point of the work clearer.
- explain, from their perspective, which of the two pieces of work is more powerful.

ASSESSMENT METHOD

Essay Assessment (Direct Measure): Given the structure of the University's General Education program, the measurement of student learning in the areas of the fine arts and humanities must accommodate a diversity of educational experiences. Students are only required to take one class in fine arts which could be music, theatre, or the visual arts. Similarly, students may elect to take a variety of courses in the humanities that range from literature and poetry to communications and philosophy. Nonetheless, this desire for flexibility must also be balanced with the need to have a common measure of student achievement across the various disciplines. The "solution" to this problem consists of establishing a general set of prompts which correspond to material specific prompts (see Appendix 16 for an example related to the visual arts). Because students often come to the university without significant experience in these areas, the assessment plan will only measure student outcomes, that is, student achievement upon graduation.

A random sample of exiting students will answer three brief essay questions. Each student will be given the choice between six sets of prompts: two paintings, two passages from prose fiction, two poems, two scenes from theatre, two musical selections, and two speeches. In response to this material, students will write three separate essays addressing one question per section. Students should spend approximately 20 minutes per essay question for a total of 60 minutes.

To demonstrate your understanding of the evolution of ideas and range of expressions through the arts and humanities, answer any ONE of the following four questions:

a. What are the social and historical contexts of these creative works and how do these examples of human creativity reflect their contexts?

b. What evolutionary trajectory in artistic expression do you see when you compare the two works?

c. How do the works portray tragedy and triumph?

d. How do the works address the common themes of "hope dies last" and "despair does not rule"?

To demonstrate your ability to recognize the value and importance of ethical decision-making, answer any ONE of the following two questions:

e. How do these works comment, or do not comment, on prejudice and what is the relevance of prejudice in relation to the historical contexts?

f. What ethical dimensions do you perceive in these works?

Finally, to indicate your appreciation of the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge, answer any ONE of the following three questions:

g. What are the fundamental elements within the creative works and how are they used to present human emotion?

h. How are the materials or content used to make the point of the work clearer?

i. Explain, from your perspective, which of the two pieces of work is more powerful.

A committee, consisting of faculty across disciplines within the fine arts and humanities will assess the essays from the random sample of graduating seniors. Faculty conducting the assessment will employ a rubric specifically addressing the 9 potential facets of our measurement of student learning in the arts and humanities (Appendix 17).

GOALS: DIRECT MEASURE

For goal 1, understanding the evolution of ideas and range of expressions through the arts and humanities, we expect that:

- 75% of the essays in which this question is answered are rated as good or adequate in their ability to identify the social and historical contexts of these creative works and how do these examples of human creativity reflect their contexts.
- 75% of the essays in which this question is answered are rated as good or adequate in their ability to discuss the evolutionary trajectory in artistic expression seen when you compare the two works.
- 75% of the essays in which this question is answered are rated as good or adequate in their ability to describe how the works portray tragedy and triumph.
- 75% of the essays in which this question is answered are rated as good or adequate in their ability to articulate how the works address the common themes of “hope dies last” and “despair does not rule”.

For goal 2, demonstrating that they recognize the value and importance of ethical decision-making, we expect that:

- 75% of the essays in which this question is answered are rated as good or adequate in their ability to describe how these works comment, or do not comment, on prejudice and what is the relevance of prejudice in relation to the historical contexts.
- 75% of the essays in which this question is answered are rated as good or adequate in their ability to comment on the ethical dimensions they perceive in these works.

For goal 3, appreciating the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge, we expect that:

- 75% of the essays in which this question is answered are rated as good or adequate in their ability to identify the fundamental elements within the creative works and how are they used to present human emotion.

- 75% of the essays in which this question is answered are rated as good or adequate in their ability to describe how the materials or content are used to make the point of the work clearer.
- 75% of the essays in which this question is answered are rated as good or adequate in their ability to explain, from their perspective, which of the two pieces of work is more powerful.

FEEDBACK

The assessment committee will provide the Academic Assessment Committee with an annual report of student success that will include a report of the questions answered within each group and specific data on student performance on the questions answered. Input will be sought from all units for improvements of the Arts and Humanities component of the General Education program. CAS will then develop plans to improve less successful aspects and to replicate successful aspects as it sees appropriate.

APPENDIX 1
SCORING RUBRIC FOR MID-CAREER WRITING

Paper #_____

Reader:_____

Assess writing as exemplary of "Freshman" writing:

Circle Appropriate Number

	GENERAL ED OUTCOMES FOR WRITTEN COMMUNICATION	STRONG	ADEQUATE	POOR	UNACCEPTABLE
14a	Clear thesis; focused on a specific purpose/central idea.	4	3	2	1
14b	Introduction and conclusion relate to content/thesis	4	3	2	1
14c	Ideas arranged in a logical and organized sequence	4	3	2	1
14d	Clearly written, well described, statistical and/or textual evidence	4	3	2	1
14e	Relevant evidence that logically supports the thesis	4	3	2	1
14f	Language and style appropriate for audience	4	3	2	1
14g	Use of documentation protocols, internally and at end	4	3	2	1
14h	Surface features (i.e. grammar and punctuation)	4	3	2	1

Comments:

APPENDIX 2
NARRATIVE RUBRIC FOR MID-CAREER WRITING ASSESSMENT

	GENERAL ED OUTCOMES FOR WRITTEN COMMUNICATION	STRONG 4	ADEQUATE 3	POOR 2	UNACCEPTABLE 1
14a	Clear thesis; focused on a specific purpose/central idea.	Thesis is easy to find and stated focus is directly understood	Once found, stated focus of thesis is relatively clear	Thesis is not easy to locate and/or stated focus is difficult to understand	Thesis cannot be located or stated focus cannot be understood
14b	Introduction and conclusion relate to content/thesis	Introduction fully frames the content/thesis of the essay and the conclusion draws thoroughly from content/thesis presented	Introduction offers some frame to the content/thesis and the conclusion is related to content/thesis presented	Introduction demonstrates some difficulty framing the content/thesis and/or the conclusion does not relate to the content/thesis presented	Introduction and/or conclusion not present or introduction and conclusion completely unrelated to essay
14c	Ideas arranged in a logical and organized sequence	Argument is developed in a series of well connected paragraphs	Argument is developed in a series of paragraphs that is relatively easy to follow	Argument is developed with some difficulty in a collection of paragraphs not readily connected	Organizational pattern and/or relationship between paragraphs cannot be followed
14d	Clearly written, well described, statistical and/or textual evidence	Within paragraphs evidence is clearly identified and consistently explained	Within paragraphs, evidence is identified and typically presented with some explanation	Within paragraphs, evidence used is often not identified or explained	Within paragraphs, identification and explanation of evidence is typically confusing or absent
14e	Relevant evidence that logically supports the thesis	Evidence is consistently provided that works to support the thesis and its claims	Evidence often provided that is related to the thesis and generally supports its claims	Evidence is occasionally provided that is related to thesis and/or does not always clearly support the thesis	No evidence provided or the evidence provided is irrelevant or contradictory to thesis
14f	Language and style appropriate for audience	Essay demonstrates understanding of assignment and rarely lapses in appropriate tone	Essay demonstrates a basic understanding of assignment and shows few lapses in appropriate tone	Essay demonstrates some understanding of assignment but has frequent lapses in tone	Essay demonstrates no understanding of assignment or appropriate tone
14g	Use of documentation protocols, internally and at end	Essay cites/notes sources within the body of the paper with no obvious exceptions and includes a bibliography	Essay regularly cites/notes sources within the body of the paper and includes a bibliography	Essay inconsistently cites/notes sources within the body of the paper and/or includes an incomplete bibliography	Essay does not cite/note sources within the body of the paper or does not include a bibliography
14h	Surface features (i.e. grammar and punctuation)	Mechanical concerns are few and minor	Mechanical errors noticeable but are minor and do not interfere with understanding argument	Mechanics begin to interfere with understanding argument	Mechanics interfere greatly with understanding the argument

APPENDIX 3
STUDENT SELF ASSESSMENT OF WRITING

In thinking about your writing, please consider:

Circle Appropriate Number

		OUT-STANDING	ADEQUATE	POOR	UNACCEPTABLE
14a	My ability to write a clear thesis, focused on a specific purpose/central idea.	4	3	2	1
14b	My ability to write an introduction and conclusion that relate to content/thesis	4	3	2	1
14c	My ability to arrange ideas in a logical and organized sequence	4	3	2	1
14d	My ability to provide clearly written, well described, statistical and/or textual evidence	4	3	2	1
14e	My ability to incorporate relevant evidence that logically supports the thesis	4	3	2	1
14f	My ability to use language and a style appropriate for my audience	4	3	2	1
14g	My ability to use documentation protocols, internally and at end	4	3	2	1
14h	My ability to limit surface errors (i.e. grammar and punctuation)	4	3	2	1

APPENDIX 4
STUDENT SELF-ASSESSMENT:
WRITING STRENGTHS AND WEAKNESSES

Strengths:

What are your strengths in writing?	Did UM-F help you build these strengths?	If so, how? (e.g. specific assignments, course, project, etc.)	If so, when? (e.g. freshman, sophomore, etc.)

Weaknesses:

What are your weaknesses in writing?	Did UM-F help you address these weaknesses?	If so, how? (e.g. specific assignments, course, project, etc.)	If so, when? (e.g. freshman, sophomore, etc.)

APPENDIX 5

INTERVIEW SCHEDULE FOR SENIOR FOCUS GROUPS (WRITING)

1) **What do you believe are important components of a successful paper?**

2) **Did you receive instruction at UM-Flint in those important components? If so, where and when?**

3) **What do you believe are your strengths in writing?**

4) **What do you believe are your weakness in writing?**

5) **Did your education at UM-Flint help with your strengths? weaknesses?**

6) **Do you feel capable of writing an academic research paper?**

Additional Comments:

APPENDIX 6
EXAMPLE ESSAY (CRITICAL THINKING)

Give Children the Vote

VITA WALLACE*

I first became interested in children's rights two years ago, when I learned that several states had passed laws prohibiting high school dropouts from getting driver's licenses. I was outraged, because I believe that children should not be forced to go to school or be penalized if they choose not to, a choice that is certainly the most sensible course for some people.

I am what is called a home schooler. I have never been to school, having always learned at home and in the world around me. Home schooling is absolutely legal, yet as a home schooler, I have had to defend what I consider to be my right to be educated in the ways that make the most sense to me, and so all along I have felt sympathy with people who insist on making choices about how they want to be educated, even if that means choosing not to finish high school. Now this choice is in jeopardy.

Since first learning about the discriminatory laws preventing high school dropouts from getting driver's licenses that have been passed by some state legislatures, I have done a lot of constitutional and historical research that has convinced me that children of all ages must be given the same power to elect their representatives that adults have, or they will continue to be unfairly treated and punished for exercising the few legal options they now have, such as dropping out of high school.

Most people, including children themselves, probably don't realize that children are the most regulated people in the United States. In addition to all the laws affecting adults, including tax laws, children must comply with school attendance laws, child labor laws, and alcohol and cigarette laws. They are denied driver's licenses because of their age, regardless of the dropout issue; they are victims of widespread child abuse; and they are blatantly discriminated against everywhere they go, in libraries, restaurants, and movie theaters. They have no way to protect themselves: Usually they cannot hire lawyers or bring cases to court without a guardian, and they are not allowed to vote.

The child labor and compulsory schooling laws were passed by well-meaning people to protect children from exploitation. Child labor laws keep children from being forced to work, and compulsory schooling allows all children to get an education. But the abolition of slavery in 1865 didn't end the exploitation of black people. They needed the right to vote and the ability to bring lawsuits against their employers. Children need those rights too. Without them, laws that force children to go to school and generally do not allow them to work may be necessary to prevent exploitation, but they also take away children's rights as citizens to life, liberty, and the pursuit of happiness. In my case, the compulsory education laws severely limited my right to pursue the work that is important to me (which is surely what "the pursuit of happiness" referred to in the Declaration of Independence).

I am 16 now, still not old enough to vote. Like all children, then, the only way I can fight for children's rights is by using my freedom of speech to try to convince adults to fight with me. While I am grateful that I have the right to speak my mind, I believe that it is a grave injustice to deny young people the most effective tool they could have to bring about change in a democracy. For this reason, I suggest that the right of citizens under 18 to vote not be denied or abridged on account of age.

Many people argue that it would be dangerous to let loose on society a large group of new voters who might not vote sensibly. They mean that children might not vote for the right candidates. The essence of democracy, however, is letting people vote for the wrong candidates. Democratic society has its risks, but we must gamble on the reasonableness of all our citizens, because it is less dangerous than gambling on the reasonableness of a few. That is why we chose to be a democracy instead of a dictatorship in the first place.

As it is, only 36 to 40 percent, of adults who are eligible to vote actually vote in nonpresidential years, and about 25 percent of the population is under 18. As you can see, our representatives are elected by a very small percentage of our citizens. That means that although they are responsible *for* all of us, they are responsible *to* only a few of us. Politicians usually do all they can to keep that few happy, because both voters and politicians are selfish, and a politician's reelection depends on the well-being of the voters. Large segments of society that are not likely or not allowed to vote are either ignored or treated badly because of this system. It would be too much to expect the few always to vote in the interests of the many. Under these circumstances, surely the more people who vote the better, especially if they are of both sexes and of all races, classes and ages.

People also claim that children are irresponsible. Most of the teenagers who act irresponsibly do so simply because they are not allowed to solve their problems in any way that would be considered responsible – through the courts or legislature. They fall back on sabotage of the system because they are not allowed to work within it.

Some people believe that children would vote the way their parents tell them to, which would, in effect, give parents more votes. Similarly, when the Nineteenth Amendment was passed in 1920, giving women the vote, many people thought women would vote the way their husbands did. Now women are so independent that the idea
of women voting on command seems absurd. The Nineteenth Amendment was a large part of the process that produced their independence. I think a similar and equally desirable result would follow if children were allowed to vote. They are naturally curious, and most are interested in the electoral process and the results of the elections even though they are not allowed to vote. Lacking world-weary cynicism, they see, perhaps even more clearly than their elders, what is going on in their neighborhoods and what is in the news.

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*Vita Wallace is a writer who lives in Philadelphia. This article originally appeared in a liberal publication, *The Nation* (14 October 1991).

APPENDIX 7
SCORING SHEET FOR CRITICAL THINKING

Essay #_____

Reader:_____

10	**Students will demonstrate the ability to take reasoned positions on issues of importance and support those position with evidence.**	**Good**	**Adequate**	**Poor**	**Unaccept -able**
10a	The student has a clearly stated conclusion as to the reasonableness of the argument in the author's essay.	4	3	2	1
10b	The student provided reasons to support their conclusion.	4	3	2	1
10c	The reason(s) provided give relevant support for the student's conclusion.	4	3	2	1
10d	The reason(s) provided give adequate support for the student's conclusion.	4	3	2	1
11	**Students will demonstrate the ability to apply reasoning to solve authentic problems through experimentation, data collection, and induction of principles.**				
11a	The student has accurately interpreted statistical data in charts and/or tables.	4	3	2	1
11b	The student has drawn appropriate conclusions from the statistical data in charts and/or tables.	4	3	2	1
12	**Students will demonstrate the ability to apply quantitative reasoning to problem-solving.**				
12a	The student demonstrates an understanding of what role the statistical (quantitative) evidence plays in the author's argument.	4	3	2	1
12b	The student demonstrates an ability to critically assess the relevance of the quantitative evidence.	4	3	2	1
12c	The student demonstrates an ability to critically assess the accuracy of the quantitative evidence.	4	3	2	1
13	**Students will demonstrate the ability to critically examine issues that affect their world.**				
13a	The student identified the conclusion (the main point) of the author's essay.	4	3	2	1
13b	The student identified the reason(s) (the evidence) offered by the author in support of that conclusion.	4	3	2	1
13c	The student identified an implication (or implications) of accepting the author's proposal.	4	3	2	1
13d	The student evaluated the implications of accepting the author's proposal.	4	3	2	1
13e	The student provided reason(s) to support their assessment of the implication of the author's proposal.	4	3	2	1

APPENDIX 8
NARRATIVE RUBRIC FOR CRITICAL THINKING

	GENERAL ED OUTCOMES, CRITICAL THINKING	GOOD 4	ADEQUATE 3	POOR 2	UNACCEPT-ABLE 1
10a	The student has a clearly stated conclusion as to the reasonableness of the argument in the author's essay.	Conclusion is easy to find and unambiguously stated.	Conclusion can be found and is relatively clearly stated.	Conclusion is not easy to locate and/or is unclearly stated.	Conclusion cannot be located and/or cannot be understood.
10b	The student provided reasons to support their conclusion.	Reasons provided to support conclusion are easy to find and unambiguously stated.	Reasons provided to support conclusion can be found and are relatively clearly stated.	Reasons provided to support conclusions are not easy to locate and/or are not clearly stated.	Reasons provided to support conclusions cannot be located and/or cannot be understood.
10c	The reason(s) provided give relevant support for the student's conclusion	All reasons provided give relevant support to conclusion.	Most of the reasons provided give relevant support to the conclusion but at least one reasons is not obviously relevant to conclusion.	At least one reason offered gives relevant support to the conclusion; most reasons are not obviously relevant to the conclusion.	None of the reasons provided give relevant support to the conclusion or no reasons have been provided.
10d	The reason(s) provided give adequate support for the student's conclusion.	Taken together, the reasons provide adequate support for the conclusion.	Taken together, the reasons provide some support for the conclusion, but are not by themselves adequate.	Taken together, the reasons provide little support for the conclusion.; the conclusion is largely unsupported.	Taken together the reasons provided offer no support for the conclusion or no reasons have been provided.
11a	The student has accurately interpreted statistical data in charts and/or tables.	Essay provides a clear and accurate interpretation of statistical data.	Essay provides an interpretation of statistical data that is largely clear and accurate.	Essay provides an interpretation of statistical data that is mostly inaccurate and/or unclearly stated.	Interpretation of statistical data is entirely incorrect or non-existent.
11b	The student has drawn appropriate conclusions from the statistical data in charts and/or tables.	Essay includes clearly stated and appropriate conclusions drawn from the statistical data in charts and/or tables.	Essay includes relatively clear and appropriate conclusions drawn from the statistical data in charts and/or tables.	Essay includes conclusions drawn from the statistical data in charts and/or tables that are either unclearly stated are not entirely appropriate.	Conclusions drawn from the statistical data in charts and/or tables are either entirely inappropriate or nonexistent.
12a	The student demonstrates an understanding of what role the statistical (quantitative) evidence plays in the author's argument.	The essay demonstrates an excellent understanding of what role the statistical (quantitative) evidence plays in the author's argument.	The essay demonstrates a mostly correct understanding of the role statistical (quantitative) evidence plays in the author's argument.	The essay demonstrates a mostly incorrect understanding of the role statistical (quantitative) evidence plays in the author's argument.	The essay demonstrates an entirely incorrect understanding of the role statistical (quantitative) evidence plays in the author's argument; discussion of role statistical evidence plays in author's argument not present.
12b	The student demonstrates an ability to critically assess the relevance of the quantitative evidence.	Essay demonstrates an excellent critical assessment of the relevance of the quantitative evidence.	Essay demonstrates a critical assessment of the relevance of the quantitative evidence that is largely correct and clearly stated.	Essay demonstrates a critical assessment of the relevance of the quantitative evidence that is mostly incorrect and/or mostly unclearly stated.	There is no critical assessment of the relevance of the quantitative evidence or assessment is unclearly stated.

APPENDIX 8 (Cont.)
NARRATIVE RUBRIC FOR CRITICAL THINKING

	GENERAL ED OUTCOMES, CRITICAL THINKING	GOOD 4	ADEQUATE 3	POOR 2	UNACCEPT-ABLE 1
12c	The student demonstrated an ability to critically assess the accuracy of the quantitative evidence.	Essay demonstrates an excellent critical assessment of the accuracy of the quantitative evidence.	Essay demonstrates a critical assessment of the accuracy of the quantitative evidence that is largely correct and clearly stated.	Essay demonstrates a critical assessment of the accuracy of the quantitative evidence that is mostly incorrect and/or mostly unclearly stated.	There is no critical assessment of the accuracy of the quantitative evidence or assessment is unclearly stated.
13a	The student identified the conclusion of the author's essay.	The conclusion of the author's essay is accurately and clearly stated.	The conclusion of the author's essay is mostly adequate and for the most part clearly stated.	The conclusion of the author's essay is mostly inaccurate and/or unclearly stated.	The conclusion of the author's essay is misidentified, very poorly described or not included.
13b	The student identified the reason(s) offered by the author in support of that conclusion.	The author's reasons are accurately and clearly stated.	The author's reasons are mostly accurately and clearly stated.	The author's reasons are mostly inaccurately and/or unclearly stated.	The author's reasons are entirely inaccurate, and/or unclearly stated and/or not included.
13c	The student identified an implication of accepting the author's proposal.	Clearly and accurately identified at least one implication of accepting the author's proposal.	Implication of accepting the author's proposal was relatively clearly and accurately identified.	Any implications identified are inaccurate and/or unclearly stated.	No implications of accepting author's proposal identified.
13d	The student evaluated the implications of the author's proposal.	Essay provided excellent analysis of the implication(s) of accepting author's proposal.	Essay provided relatively clear analysis of the implication(s) of accepting author's proposal.	Essay provided poor or cursory analysis of the implication(s) of accepting author's proposal.	Essay provided wholly inadequate analysis of the implication(s) of accepting author's proposal; no analysis of the implications of accepting author's proposal was provided.
13e	The student provided reason(s) to support their assessment of the implication of the author's proposal.	Essay provided excellent reason(s) to support their assessment of the implication of the author's proposal	Reason(s) provided to support their assessment of the implication of the author's proposal mostly well-stated and clearly reasoned.	Reason(s) provided to support their assessment of the implication of the author's proposal too brief, unclearly stated or poorly reasoned.	Reason(s) provided to support their assessment of the implication of the author's proposal wholly unclear; no reasons provided.

APPENDIX 9

BRIEF STUDENT SURVEY ON CRITICAL THINKING

The faculty within the College of Arts and Sciences wishes to assess how well our General Education program promotes critical thinking among undergraduate students. Generally speaking, critical thinking involves the capacity to 1) take reasoned positions on issues of importance and support those positions with evidence; 2) apply reasoning to solve authentic problems through experimentation, data collection, and induction of principles; 3) apply quantitative reasoning to problem-solving; and 4) critically examine issues that affect their world. Reflecting upon your educational experience here at the University of Michigan-Flint, please be as candid as possible and characterize your current:

		Unaccept -able	Adequate	Good	Out- standing
1.	Ability to clearly state a conclusion as to the reasonableness of an argument.	1	2	3	4
2.	Ability to provide reasons to support an argument's conclusion.	1	2	3	4
3.	Ability to provide relevant support for your conclusion.	1	2	3	4
4.	Ability to provide adequate support for your conclusion.	1	2	3	4
5.	Aptitude in accurately interpreting statistical data in charts and/or tables.	1	2	3	4
6.	Aptitude to draw appropriate conclusions from the statistical data in charts and/or tables.	1	2	3	4
7.	Ability to understand the role the statistical (quantitative) evidence plays in academic arguments.	1	2	3	4
8.	Ability to critically assess the relevance of the quantitative evidence.	1	2	3	4
9.	Ability to critically assess the accuracy of the quantitative evidence.	1	2	3	4
10.	Skill in identifying the conclusion (the main point) of the academic argument.	1	2	3	4
11.	Skill in identifying the reason(s) (the evidence) offered by the author in support of his or her argument.	1	2	3	4
12.	Skill in identifying an implication (or implications) of accepting the argument's position.	1	2	3	4
13.	Skill in evaluating the implications of accepting the argument's position.	1	2	3	4
14.	Skill in providing reason(s) to support their assessment of the implication of the argument's position.	1	2	3	4

APPENDIX 10
SCIENTIFIC AND QUANTITATIVE REASONING TEST

In this test, we wish to obtain a reading of your quantitative skills as you begin your career at the University of Michigan-Flint. Complete the 17 questions below to the best of your ability. You are expected to take this exam seriously and to try your best. Please answer all questions in the space provided (Multiple Choice answers and response space eliminated in this Appendix).

1. Given that the average morning temperature in degrees Fahrenheit at a certain location t hours after 2:00 a.m. on June 1 is given approximately by $F(t) = 40 + t$, the approximate temperature at 9 a.m. on June 1 should be (Multiple Choice Question):

2. If the cost of producing x hundred units of a product is $C(x) = x(2 - 0.01x)$ hundred dollars, what is the cost to produce 2000 units? (Multiple Choice Question)

3. The number of forest fires in California was about 7,500 in 1999 and about 5,000 in 2000. This represents what percentage decrease in fires (to the nearest percent)? (Multiple Choice Question)

4. In a sample of 25 fish of a particular species from an inland lake, 3 showed traces of sickness and/or deformity. If the total number of fish of that species in the lake is estimated to be 1000, how many could be expected to be sick and/or deformed? (Multiple Choice Question)

5. A truck moving 50 miles per hour is moving how many feet per second? (There are 5280 feet in a mile.) (Multiple Choice Question)

6. How many meters are there in 3.2 kilometers?

7. Given that the formula for converting degrees Fahrenheit (°F) to degrees Celsius (°C) is $F – 32 = 9C/5$ or $(9/5)C$, convert 32°C to degrees Fahrenheit.

8. A ball's height above ground is given by $s(t) = –16t^2 + 48t + 20$. When does it reach its highest point?

9. If force is mass times acceleration ($F = ma$), does the force increase or decrease if the mass is tripled and the acceleration is halved?

10. A hotel can rent 100 rooms at $60 per night for a total revenue of $6000, but finds that for each $5 increase in rent, occupancy will drop by3 units. Find the revenue when the rooms are rented for $70 per night.

11. Calculate the mean, median, and range for the data {1, 3, 3, 5, 8, 16}.

APPENDIX 10 (Cont.)
SCIENTIFIC AND QUANTITATIVE REASONING TEST

12. Table 1 below presents the number of fires in California in two years, 2000 and 1999. The table also reports the number of acres burned in these two years. Select an appropriate style of graph for all the data and construct the graph below Table 1.

Table 1: Fires and Effected Acres in California, 2000-1999

	Fires	Acres
2000	5,177	72,718
1999	7,562	285,272
5 year average	6,692	157,868

Construct your graph here:

Explain why you chose the graph type you did.

13. Referring again to the fire data presented in Table 1, was 1999 or 2000 a better year for fires? Justify your response.

14. From the data in Table 1 or your graph, how many fires would you predict for 2001? Justify your answer.

15. Imagine that you have data on cardiovascular risk factors as well as socio-economic data on 184 randomly selected individuals within Genesee County. Specifically, you have data on Systolic Blood Pressure (mm hg), Total Cholesterol (mg/dl) and HDL Cholesterol (mg/dl) Age, Sex, and Income. Construct a causal hypothesis that is consistent with these variables.

16. Using the imaginary data set in Question 15, identify variables that would be important to "control for" in the testing of the hypothesis you derived in Question 15.

17. Finally, what statistical tests would you employ to find support for your hypothesis?

APPENDIX 11
WORKSHEET FOR "GRADING"
SCIENTIFIC AND QUANTITATIVE REASONING TEST
(Arranged by General Education Goals)

GE Goal Number	General Education Outcome/Examination Question	Completed	Correct
1.4	Knowledge: understand scientific processes and concepts and their relation to social, natural and physical phenomenon.		
1.4a	Construct a hypothesis.		
	Q15. Imagine that you have data on cardiovascular risk factors as well as socio-economic data on 184 randomly selected individuals within Genesee County. Specifically, you have data on Systolic Blood Pressure (mm hg), Total Cholesterol (mg/dl) and HDL Cholesterol (mg/dl) Age, Sex, and Income. Construct a causal hypothesis that is consistent with these variables.	Y/N	Y/N
1.4b	Specify logical "control" variables.		
	Q16. Using the imaginary data set in Question 15, identify variables that would be important to "control for" in the testing of the hypothesis you derived in Question 15.	Y/N	Y/N
3.2	Reasoning: demonstrate the ability to apply reasoning to solve authentic problems through experimentation, data collection and induction of principles.		
3.2a	Indicate a specific statistical procedure to test a hypothesis.		
	Q17. Finally, what statistical tests would you employ to find support for your hypothesis?	Y/N	Y/N
3.3	Reasoning: demonstrate the ability to apply quantitative reasoning to problem solving.		
3.3a	Work a basic word problem.		
	Q10. A hotel can rent 100 rooms at $60 per night for a total revenue of $6000, but finds that for each $5 increase in rent, occupancy will drop by3 units. Find the revenue when the rooms are rented for $70 per night	Y/N	Y/N
3.3b	Work a basic statistics problem.		
	Q11. Calculate the mean, median, and range for the data {1, 3, 3, 5, 8, 16}.	Y/N	Y/N
3.3c	Construct and/or read a graph.		
	Q12. Table 1 below presents the number of fires in California in two years, 2000 and 1999. The table also reports the number of acres burned in these two years. Select an appropriate style of graph for all the data and construct the graph below Table 1.	Y/N	Y/N

Table 1: Fires and Effected Acres in California, 2000-1999

	Fires	Acres
2000	5,177	72,717
1999	7,562	285,272
5 year average	6,692	157,868

Construct your graph here:

	Q13. Referring again to the fire data presented in Table 1, was 1999 or 2000 a better year for fires? Justify your response.	Y/N	Y/N
	Q14. From the data in Table 1 or your graph, how many fires would you predict for 2001? Justify your answer.	Y/N	Y/N

APPENDIX 11 (cont.)
WORKSHEET FOR "GRADING"
SCIENTIFIC AND QUANTITATIVE REASONING TEST
(Arranged by General Education Goals)

GE Goal Number	General Education Outcome/Examination Question	Completed	Correct
4.2	Skills: demonstrate fundamental numerical problem solving**.**		
4.2a	Apply a function formula.		
	Q1. Given that the average morning temperature in degrees Fahrenheit at a certain location t hours after 2:00 a.m. on June 1 is given approximately by F(t) = 40 + t, the approximate temperature at 9 a.m. on June 1 should be (Multiple Choice Question):	Y/N	Y/N
	Q2. If the cost of producing x hundred units of a product is C(x) = x(2 - 0.01x) hundred dollars, what is the cost to produce 2000 units? (Multiple Choice Question)	Y/N	Y/N
4.2b	Calculate a percent		
	Q3. The number of forest fires in California was about 7,500 in 1999 and about 5,000 in 2000. This represents what percentage decrease in fires (to the nearest percent)? (Multiple Choice Question)	Y/N	Y/N
4.2c	Compute a proportion		
	Q4. In a sample of 25 fish of a particular species from an inland lake, 3 showed traces of sickness and/or deformity. If the total number of fish of that species in the lake is estimated to be 1000, how many could be expected to be sick and/or deformed? (Multiple Choice Question)	Y/N	Y/N
4.2d	Perform a unit conversion		
	Q5. A truck moving 50 miles per hour is moving how many feet per second? (There are 5280 feet in a mile.) (Multiple Choice Question)	Y/N	Y/N
	Q6. How many meters are there in 3.2 kilometers?	Y/N	Y/N
4.2e	Solve a one-variable algebraic problem.		
	Q7. Given that the formula for converting degrees Fahrenheit (°F) to degrees Celsius (°C) is F – 32 = 9C/5 or (9/5)C, convert 32°C to degrees Fahrenheit.	Y/N	Y/N
	Q8. A ball's height above ground is given by $s(t) = -16t^2 + 48t + 20$. When does it reach its highest point?	Y/N	Y/N
4.2f	Manipulate a formula		
	Q9. If force is mass times acceleration (F = ma), does the force increase or decrease if the mass is tripled and the acceleration is halved?	Y/N	Y/N

APPENDIX 12
SELF ASSESSMENT OF SCIENTIFIC
AND QUANTITATIVE REASONING SKILLS

	A	B	C	D
	Scientific and Quantitative Reasoning Skills:	How confident do you feel in your ability to complete this task? 1=not confident at all, 5=Very confident (circle one)	How much did your education at the UM-F help you acquire this skill? 1=Not at all, 5=Very much (circle one)	(Complete only if answer in column C is "4" or "5") What courses specifically contributed to your acquisition of this skill?
1	Construct a hypothesis	1 2 3 4 5	1 2 3 4 5	
2	Specify logical "control" variables	1 2 3 4 5	1 2 3 4 5	
3	Indicate a specific statistical procedure to test a hypothesis	1 2 3 4 5	1 2 3 4 5	
4	Work a basic word problem	1 2 3 4 5	1 2 3 4 5	
5	Work a basic statistics problem	1 2 3 4 5	1 2 3 4 5	
6	Construct and/or read a graph	1 2 3 4 5	1 2 3 4 5	
7	Apply a function formula	1 2 3 4 5	1 2 3 4 5	
8	Calculate a percent	1 2 3 4 5	1 2 3 4 5	
9	Compute a proportion	1 2 3 4 5	1 2 3 4 5	
10	Perform unit conversion	1 2 3 4 5	1 2 3 4 5	
11	Solve a one-variable algebraic problem	1 2 3 4 5	1 2 3 4 5	
12	Manipulate a formula	1 2 3 4 5	1 2 3 4 5	

APPENDIX 13

SAMPLE ESSAY QUESTION FOR DIVERSITY

In the Spring of 2003, the University of Michigan argued before the Supreme Court of the United States that it has a "compelling case" to promote diversity on its campus. Although the term "diversity" is widely used within and outside of the University of Michigan-Flint, the concept is rather complex. In this exercise, the University would like you to share your thoughts and understandings of diversity. In organizing your essay, please be certain to address 4 issues:

- Define diversity.
- Identify multiple facets or dimensions of diversity.
- Relate any personal experiences that have contributed to your understanding of diversity.
- Explain why an institution of higher education would have a "compelling case" to promote diversity on its campus.

Your essay should be between 3-4 handwritten pages in length. Note, while your essay will not be assessed in terms of its grammar or spelling (we recognize that you do not have access to a dictionary or a rewrite), realize that a well-written essay is clearer and more persuasive.

APPENDIX 14: SCORING RUBRIC FOR DIVERSITY ESSAY

Essay #_____

Reader:_____

1. ***In assessing the diversity essay, the writer identified the following dimensions of diversity:***

Race	_____
Ethnicity	_____
Sex	_____
Gender	_____
Disability	_____
Age	_____
Sexual Orientation	_____
Religion	_____
Other (please specify)	_____
TOTAL CHECKS	_____

Please enter number

2. **TAKEN IN ITS ENTIRETY, THE ESSAY ON DIVERSITY:**

		Yes	No
1.	Recognize the legitimacy of the concept of diversity (i.e., diversity is "just being PC.")	1	2
2.	Recognizes an immediate <u>instrumental</u> value of diversity (opens international markets, get a job in companies valuing a diverse workforce, etc.)	1	2
3.	Relates an enhancement in <u>perspective</u> that resulted from an understanding and appreciation of diversity	1	2
4.	Exhibits an understanding and appreciation of diversity through their <u>social interactions</u> with people different from themselves.	1	2
5.	Identifies and rejects <u>hierarchical</u> conceptions of diversity	1	2
6.	Highlights <u>behaviors</u> that challenge barriers to understanding and appreciating diversity or actively engage in behaviors that "promote and defend academic freedom, diversity, equality and justice."	1	2

3. **Overall Assessment:**

	Understanding of the dimensions of diversity is:	
Understanding of the Importance of Diversity extends beyond "instrumental" level	**Restrictive 1 – 2 checks**	**Expansive 3 or more checks**
No	**1**	**2**
Yes	**2**	**3**

APPENDIX 15
STUDENT SURVEY ON DIVERSITY

Section I: Your Educational Experiences

During your time at the University of Michigan-Flint, have you:

		Yes	No
1.	Voiced an opinion about a controversial issue(s)	1	2
2.	Personally sought information which addresses issues of diversity	1	2
3.	Become personally involved in a discussion/debate with someone who is different from your self.	1	2
4.	Made friends with students whose academic/major interests differ from yours	1	2
5.	Attended an informational, session, talk, or meeting which addressed issues of diversity, such as race/ethnicity, women's issues, sexual orientation, etc.	1	2
6.	Participated in serious discussions with students whose religious beliefs, life philosophies, or personal values differ from your own.	1	2
7.	Given advice, information, or assistance to someone who is different from your self.	1	2
8.	Received advice, information, or assistance to someone who is different from your self.	1	2
9.	Developed an awareness of different cultures and ways of life in the United States.	1	2
10.	Developed an awareness of people and values from outside the United States.	1	2

Section II: Campus Climate

1. How would you characterize the ***racial/ethnic*** climate at the University of Michigan-Flint on the following dimensions? (circle one response for each)

			neutral			
Tense	1	2	3	4	5	Relaxed
Hostile	1	2	3	4	5	Friendly
Intolerant	1	2	3	4	5	Tolerant
Uncomfortable	1	2	3	4	5	Comfortable
Socially Separated	1	2	3	4	5	Socially Integrated

APPENDIX 15 (Cont.)

STUDENT SURVEY ON DIVERSITY

2. How would you characterize the climate at the University of Michigan-Flint in terms of ***gender (male/female) relations***? (circle one response for each)

			neutral			
Tense	1	2	3	4	5	Relaxed
Hostile	1	2	3	4	5	Friendly
Intolerant	1	2	3	4	5	Tolerant
Uncomfortable	1	2	3	4	5	Comfortable
Socially Separated	1	2	3	4	5	Socially Integrated

3. How would you characterize the climate at the University of Michigan-Flint for people of differing ***sexual orientation***? (circle one response for each)

			neutral			
Tense	1	2	3	4	5	Relaxed
Hostile	1	2	3	4	5	Friendly
Intolerant	1	2	3	4	5	Tolerant
Uncomfortable	1	2	3	4	5	Comfortable
Socially Separated	1	2	3	4	5	Socially Integrated

4. How would you characterize the climate at the University of Michigan-Flint for people of differing ***religious groups***? (circle one response for each)

			neutral			
Tense	1	2	3	4	5	Relaxed
Hostile	1	2	3	4	5	Friendly
Intolerant	1	2	3	4	5	Tolerant
Uncomfortable	1	2	3	4	5	Comfortable
Socially Separated	1	2	3	4	5	Socially Integrated

5. How would you characterize the climate at the University of Michigan-Flint for people of differing ***age groups***? (circle one response for each)

			neutral			
Tense	1	2	3	4	5	Relaxed
Hostile	1	2	3	4	5	Friendly
Intolerant	1	2	3	4	5	Tolerant
Uncomfortable	1	2	3	4	5	Comfortable
Socially Separated	1	2	3	4	5	Socially Integrated

APPENDIX 15 (Cont.)

STUDENT SURVEY ON DIVERSITY

6. How would you characterize the climate at the University of Michigan-Flint for ***disabled*** people? (circle one response for each)

			neutral			
Tense	1	2	3	4	5	Relaxed
Hostile	1	2	3	4	5	Friendly
Intolerant	1	2	3	4	5	Tolerant
Uncomfortable	1	2	3	4	5	Comfortable
Socially Separated	1	2	3	4	5	Socially Integrated

7. During your time at the University of Michigan-Flint, how often have you heard a ***fellow student*** make insensitive or disparaging remarks about:

	never	1 – 2 times	3 – 5 times	6 – 9 times	10 or more times
Men	1	2	3	4	5
Women	1	2	3	4	5
Racial/ethnic minorities	1	2	3	4	5
Gay, lesbian, bisexual, transgender persons	1	2	3	4	5
Disabled persons	1	2	3	4	5
Non-native English Speakers	1	2	3	4	5
Persons of certain religious backgrounds	1	2	3	4	5

8. During your time at the University of Michigan-Flint, how often have you been at a ***university event*** where persons below would not have felt welcome?

	never	1 – 2 times	3 – 5 times	6 – 9 times	10 or more times
Men	1	2	3	4	5
Women	1	2	3	4	5
Racial/ethnic minorities	1	2	3	4	5
Gay, lesbian, bisexual, transgender persons	1	2	3	4	5
Disabled persons	1	2	3	4	5
Non-native English Speakers	1	2	3	4	5
Persons of certain religious backgrounds	1	2	3	4	5

APPENDIX 16

ASSESSMENT PROMPT FOR ARTS AND HUMANITIES ESSAYS (Visual Art)

For this exercise, please utilize your understandings of the *visual arts* to write three brief essays comparing and contrasting these two *paintings*. In each of the three question areas below, please answer one question. You should spend approximately 20 minutes per essay question.

To demonstrate your understanding of the evolution of ideas and range of expressions through the arts and humanities, answer any ONE of the following four questions:

1. What are the social and historical contexts of these paintings and how do they reflect their contexts?
2. What evolutionary trajectory in artistic expression do you see when you compare the two paintings?
3. How do the paintings portray tragedy and triumph?
4. How do the paintings address the common themes of “hope dies last” and “despair does not rule”?

To demonstrate your ability to recognize the value and importance of ethical decision-making, answer any ONE of the following two questions:

5. How do these paintings comment on prejudice and what is the relevance of prejudice in relation to the historical contexts?
6. What ethical dimensions do you perceive in these paintings?

Finally, to indicate your appreciation of the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge, answer any ONE of the following three questions:

7. What are the fundamental elements within these paintings and how are they used to present human emotion?
8. How are the materials or content used to make the point of the work clearer?
9. Explain, from your perspective, which of the two pieces of work is more powerful.

APPENDIX 17
SCORING RUBRIC FOR ARTS AND HUMANITIES ESSAYS

Essay #_____

Reader:_____

		Good	Adequate	Poor	Unaccept-able	Not Applicable
Understanding the evolution of ideas and range of expressions through the arts and humanities.						
1	Identification of the social and historical contexts of these creative works and how these examples of human creativity reflect their contexts.	4	3	2	1	N/A
2	Discussion of the evolutionary trajectory in artistic expression seen when you compare the two works.	4	3	2	1	N/A
3	Description of how the works portray tragedy and triumph	4	3	2	1	N/A
4	Articulation of how the works address the common themes of “hope dies last” and “despair does not rule”.	4	3	2	1	N/A
Recognition of the value and importance of ethical decision-making.						
5	Description of how these works comment, or do not comment, on prejudice and what is the relevance of prejudice in relation to the historical contexts.	4	3	2	1	N/A
6	Perception of the ethical dimensions in these works.	4	3	2	1	N/A
Appreciation for the creativity, intuition, and leap of thought essential to artistic expression, creative writing, and the advancement of knowledge.						
7	Identification of the fundamental elements within the creative works and how are they used to present human emotion	4	3	2	1	N/A
8	Description of how the materials or content are used to make the point of the work clearer	4	3	2	1	N/A
9	Explanation of their personal assessment of which of the two pieces of work is more powerful	4	3	2	1	N/A