January 22, 2019

### General Education Assessment of Artifacts Fall 2017 and Spring 2018

Report to the
Acting Vice
President for
Academic Affairs

This paper summarizes the findings from the assessment of 958 artifacts from fall 2017 and 821 artifacts from spring 2018 against the Alternate Writing, Writing, Analytic Reasoning, Quantitative Reasoning, and Information Management General Education rubrics.

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### General Education Assessment Report Fall 2017 and Spring 2018 INTRODUCTION

In 2011 the City University of New York (CUNY) implemented a university-wide transfer initiative called Pathways. This initiative sought to facilitate student transfer among CUNY campuses while addressing issues related to the accumulation of excess credits.

Queensborough Community College decided to implement a local interpretation of Pathways in order to honor the rigor of the existing general education outcomes, as well as the Faculty's sense of ownership and commitment to the existing local curriculum. As a result, the College created a "crosswalk" to map how the CUNY Pathways outcomes are subsumed by the Queensborough general education outcomes.

Since the spring of 2014, the body overseeing General Education at Queensborough Community College (QCC) has been the **The General Education Task Force**. Formed in April 2014, the Task Force included faculty from each academic department across the institution, as well as the former Vice President for Strategic Planning, Assessment , and Institutional Effectiveness, the Dean of Institutional Effectiveness, and the Director of Policy Analysis for General Education and Student Learning Outcomes. This group was initially charged with developing and recommending a systematic process for regular, cross-disciplinary, anonymous review of student artifacts as evidence of student learning (college-wide) for each of the college's general education objectives. The original charge was expanded in the fall of 2014 to include a review of Queensborough's existing general education outcomes and to recommend modifications of those outcomes to the Academic Senate.

From April 2014 until June of 2018, the Task Force simultaneously developed and normed rubrics for the assessment of general education outcomes, revised the General Education Outcomes several times, and developed a systematic process for assessing these outcomes. The current version of the General Education Outcomes was approved by the Academic Senate on February 13, 2018<sup>1</sup> and includes the following outcomes:

<sup>&</sup>lt;sup>1</sup> The most recent revision included the removal of the following outcome:

<sup>5.</sup> Discipline-Specific Outcomes

A robust general education is founded on the knowledge, concepts, methods and perspectives that students gain

- 1. Communicate effectively in various forms
- 2. Use analytical reasoning to identify issues or problems and evaluate evidence in order to make informed decisions
- 3. Reason quantitatively as required in various fields of interest and in everyday life
- 4. Apply information management and digital technology skills useful for academic research and lifelong learning

During the 2017-2018 academic year, the task force revised and normed rubrics for outcomes 3 and 4<sup>2</sup>, and developed a strategy for the sustainable collection of artifacts for future assessments. A total of 958 student artifacts from fall 2017 and 821 artifacts from spring 2018 were scored in the most recent four-week scoring session held in June 2018.

After revising the original General Education Outcomes, and implementing a systematic process for General Education Outcomes assessment, the General Education Task Force completed its charge in June 2018. In September of 2018 the Task Force was reconfigured as a **General Education Working Group**, which supports the ongoing assessment work for the college. The Working Group consists of faculty from several academic departments as well as the Director for Policy Analysis for General Education and Student Learning Outcomes. This group has the following charge:

- Recommend policies and procedures for General Education assessment
- Facilitate the assessment process
- Disseminate assessment results, in the form of an annual report, to relevant stakeholders
- With the Office of Institutional Research, identify institutional-level measures to assess student learning

through study of the social sciences and history, the natural sciences, the arts and the humanities. These disciplinary studies stimulate intellectual inquiry, global awareness, and cultural and artistic appreciation; they equip students to make informed judgments and engage with life beyond the classroom.

<sup>5</sup>A. Apply concepts and perspectives from history or the social sciences to examine the formation of ideas, human behavior, social institutions, or social processes and to make informed judgments

<sup>5</sup>B. Apply concepts and methods of the natural and physical sciences to examine natural phenomena and to make informed decisions.

<sup>5</sup>C. Apply aesthetic and intellectual criteria to examine or create works in the humanities and the arts and to make informed judgments.

<sup>&</sup>lt;sup>2</sup> The four dimension Writing rubric as well as the Analytical Reasoning rubric were normed in the Spring of 2015. The three dimension Alternative Writing rubric was normed in the Spring of 2016.

- Develop and review annually the General Education Handbook, including the General Education assessment protocol.
- Revise the General Education assessment protocol on an ongoing basis as needed
- When appropriate, collaborate with the Senate Committee on Assessment and Institutional Effectiveness.

#### **METHODOLOGY**

In June of 2018, 17 QCC faculty raters assessed 958 fall 2017 artifacts and 821 spring 2018 artifacts. Each artifact was assessed twice, each time by a different rater. The assessment protocol involved the following steps:

- An email announcement was sent to all QCC faculty requesting that they submit artifacts as part of the General Education Project
- Interested faculty completed a survey via Survey Monkey in which they identified which of their courses would be assessed and which rubrics were to be used in the assessment project.
- Faculty submitted artifacts using one of the following methods:
  - i. Submitting hardcopies of artifacts
  - ii. Submitting electronic copies
  - iii. Placing the artifacts on Blackboard
- Prior to scoring artifacts, the faculty scorers normed each of the four rubrics
- Seventeen faculty raters assessed the artifacts using Aqua (by Watermark) assessment software.
- After each scoring session, the faculty raters answered reflection questions about their experiences during the assessment process and discussed their responses with the larger group.
- Faculty who submitted artifacts were sent a confidential memo outlining their students' performance on these General Education rubrics.

#### RESULTS<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Trend data is listed in Appendix A

#### Fall 2017 data4

#### **Analytical Reasoning Rubric**

Faculty evaluated 514 artifacts for Analytic Reasoning using a rubric with three dimensions. Each artifact was rated on a 4-point scale. The average score across all the dimensions of the rubric was 2.20, which represents competence at the lower Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) **Identify and explain the issue, problem, or question**: 2.41 (lower Developing)
- (2) Present, organize, and evaluate sufficient and relevant evidence: 2.14 (lower Developing)
- (3) Reach an informed conclusion or solution: 2.04 (lower Developing)

#### **Writing Rubric**

Faculty evaluated 528 Writing artifacts for which all four dimensions of the rubric were applicable. Thus each artifact was rated for four dimensions on a 4-point scale. The average score across all four dimensions of the rubric was 2.34, which represents competence at the lower Developing range of the rubric.

Average ratings for each of the four dimensions were as follows, each on the 4-point scale:

- (1) Awareness of audience, purpose, and genre: 2.54 (middle Developing)
- (2) Content development and organization: 2.40 (lower Developing)
- (3) Control of grammar and mechanics: 2.42 (lower Developing)
- (4) Evidence and/or sources: 1.98 (upper Novice)

#### Writing Rubric (without the fourth dimension)

<sup>&</sup>lt;sup>4</sup> The General Education rubrics were developed to assess student performance at a four year institution. Therefore one would expect a graduating Queensborough Community College student to perform at least at the developing range (between 2 and 3) on each General Educaton rubric.

Faculty evaluated 343 Writing artifacts for which the fourth dimension (Evidence and/or sources) was not applicable. The average score across the three dimensions of the rubric was 2.47, which represents competence at the middle Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) Awareness of audience, purpose, and genre: 2.57 (middle Developing)
- (2) Content development and organization: 2.41 (lower Developing)
- (3) Control of grammar and mechanics: 2.44 (lower Developing)

#### **Quantitative Reasoning**

Faculty evaluated 158 Quantitative Reasoning artifacts. The average score across the three dimensions of the rubric was 2.36, which represents competence at the lower Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) **Identify and Extract relevant quantitative information**: 2.51 (middle Developing)
- (2) **Application of Quantitative Data to Derive Information**: 2.33 (lower Developing)
- (3) Analysis, explanation, and interpretation of quantitative results: 2.23 (lower Developing)

#### **Information Management**

Faculty evaluated 204 Information Management artifacts. The average score across the three dimensions of the rubric was 1.99, which represents competence at the upper Novice range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) Identify the scope of inquiry or investigation needed for the assignment: 2.31 (lower Developing)
- (2) Navigate digital responses to obtain relevant information: 1.82 (upper Novice)

(3) **Use Information**: 1.84 (upper Novice)

#### Spring 2018

#### **Analytical Reasoning Rubric**

Faculty evaluated 492 artifacts for Analytic Reasoning. The average score across all the dimensions of the rubric was 2.33, which represents competence at the lower Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) **Identify and explain the issue, problem, or question**: 2.57 (middle Developing)
- (2) Present, organize, and evaluate sufficient and relevant evidence: 2.28 (lower Developing)
- (3) **Reach an informed conclusion or solution**: 2.13 (lower Developing)

#### **Writing Rubric**

Faculty evaluated 485 Writing artifacts for which all four dimensions of the rubric were applicable. The average score across all four dimensions of the rubric was 2.45, which represents competence at the middle Developing range of the rubric.

Average ratings for each of the four dimensions were as follows, each on the 4-point scale:

- (1) Awareness of audience, purpose, and genre: 2.65 (upper Developing)
- (2) Content development and organization: 2.48 (middle Developing)
- (3) Control of grammar and mechanics: 2.61 (upper Developing)
- (4) Evidence and/or sources: 2.06 (lower developing)

#### Writing Rubric (without the fourth dimension)

Faculty evaluated 284 Writing artifacts for which the fourth dimension (Evidence and/or sources) was not applicable. The average score across the three dimensions of the rubric was 2.54, which represents competence at the middle Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) Awareness of audience, purpose, and genre: 2.60 (upper Developing)
- (2) Content development and organization: 2.45 (middle Developing)
- (3) Control of grammar and mechanics: 2.58 (middle Developing)

#### **Quantitative Reasoning**

Faculty evaluated 50 Quantitative Reasoning artifacts. The average score across the three dimensions of the rubric was 2.51, which represents competence at the middle Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) Identify and Extract relevant quantitative information: 2.69 (upper Developing)
- (2) **Application of Quantitative Data to Derive Information**: 2.53 (middle Developing)
- (3) Analysis, explanation, and interpretation of quantitative results: 2.32 (lower Developing)

#### **Information Management**

Faculty evaluated 259 Information Management artifacts. The average score across the three dimensions of the rubric was 2.35, which represents competence at the lower Developing range of the rubric.

Average ratings for each of the three dimensions were as follows, each on the 4-point scale:

- (1) Identify the scope of inquiry or investigation needed for the assignment: 2.64 (upper Developing)
- (2) Navigate digital responses to obtain relevant information: 2.24 (lower Developing)
- (3) **Use Information**: 2.16 (lower Developing)

#### **SUMMARY**

#### **Analytical Reasoning Rubric**

Artifacts from fall 2017 and spring 2018 scored within the Developing range of the rubric. Since these rubrics were designed to measure performance up to a four year college level, the assessment of Developing for two year students should be expected for those artifacts taken from courses that students generally take in their first year. On every dimension of this rubric, artifacts scored in the spring were rated higher than those assessed in the fall, and compared to the assessments from other years these scores were lower than those scores from the spring 2016 cohort. Among the three dimensions of the rubric, *Conclusion: Reach an Informed conclusion or Solution* was rated the lowest. In the fall of 2017, 57% of the artifacts were rated 2.0 or lower and in spring 2018 55% of the artifacts were rated 2.0 or lower.

#### Writing Rubric (4 Dimensions)

Except for the fall 2017, dimension-*Evidence and/or Sources*, both the fall 2017 and spring 2018, artifacts scored within the Developing range of the rubric. Fall 2017 artifacts assessed against the dimension *Evidence and/or Sources* were rated in the Novice range of the rubric. Again, these two semesters' scores were comparable to the data from previous semesters but consistently lower than the spring 2016 cohort<sup>5</sup>. Among the four dimensions of this rubric, the dimension *Evidence and/or sources* had the lowest scores. In the fall of 2017, 60% of the artifacts were rated at or below 2.0; in the spring of 2018, 56% of the artifacts were rated 2.0 or lower. In contrast, on the dimension *Awareness of audience, purpose and genre*, 70% of the fall 2017 artifacts and 76% of the spring 2018 artifacts were rated higher than 2.0.

#### Writing Rubric (without the fourth dimension)

All of the artifacts from fall 2017 and spring 2018 were rated within the Developing range of the rubric. Again on average, the spring 2018 artifacts were rated higher than the fall 2017 artifacts. For both the fall 2017 and spring 2018 cohorts, the dimension *Awareness of audience, purpose and genre* was rated the highest. The fall 2017 cohort had 74% of the artifacts rated higher than 2.0 and 36% rated at 3.0. In the spring of 2018 76% of the artifacts were rated 2.0 or higher and 30% were rated at 3.0.

<sup>&</sup>lt;sup>5</sup> Although the spring 2016 cohort consistently produced higher scores compared to the other cohorts in this study, further investigation of the 2016 assessment data protocol did not identify any unusual patterns that might have contributed to this difference; therefore the 2016 cohort should be considered an outlier.

#### Quantitative Reasoning<sup>6</sup>

Both fall 2017 and spring 2018 artifacts scored within the Developing range of the rubric. It should be noted that these scores are higher than scores obtained on the previous quantitative rubric. The dimension *Analysis, Explanation, and Interpretation of Quantitative results* was rated the lowest among the three dimensions of this rubric. However, for the fall 2017 cohort, 54% of the artifacts were rated above 2.0 on this dimension, while 58% of the spring 2018 artifacts were rated above 2.0.

#### **Information Management**

Fall 2017 artifacts were rated within the Novice range of the rubric on two of the three dimensions. Only on the dimension *Identify the Scope of Inquiry or Investigation*Needed for the Assignment were artifacts assessed within the Developing range of the rubric. On the dimension Navigate Digital Resources to Obtain Relevant Information, 65% of the artifacts were rated at or below 2.0. On the dimension Use Information, 63% of the artifacts were rated at or below 2.0. For spring 2018 all artifacts were assessed within the developing range of the rubric but, like the fall 2017 cohort, the dimension Use Information had the lowest score among the three dimensions of the rubric.

#### **Overall Summary**

By reviewing the data across all of the outcomes, it is clear that QCC students, for the most part, are performing at the Developing level (2.0 range) on these four outcomes. As stated previously, this is the appropriate level of performance for this sample of students. However, potential areas of improvement include (1) reaching an informed conclusion, (2) providing evidence and sources, (3) analysis, and (4) using information. Students scored lowest in these areas. For example, fall 2017 artifacts scored in the novice range (1.0) on the dimension **Evidence and/or sources** (Writing rubric) and **Using Information** (Information Management).

#### **CONCLUSION**

This is the fourth year that this assessment protocol has been implemented. Below are issues to consider for future assessment efforts.

<sup>&</sup>lt;sup>6</sup> Because these rubrics were developed this past academic year there is only data for fall 2017 and spring 2018. In addition there were only 50 artifacts assessed against this rubric.

#### **Assignment Submission**

Faculty participants are encouraged to submit assignments when they submit their student artifacts. However, in many cases, assignments are not submitted at all. Faculty scorers have commented on their scoring reflection sheets that one of the challenges associated with scoring artifacts is not having a copy of the assignment to review. In many cases the absence of an assignment makes it difficult to assess the artifact, affecting the score assigned to the artifact.

#### **Assignments Alignment with Rubrics**

Related to the issue of assignment submission is the extent to which the assignment is aligned with the rubric that the artifacts are assessed against. If faculty are able to review the rubric prior to creating an assignment, this might increase the likelihood that the developed assignment will measure what the rubric is assessing.

As stated in previous reports, in order to obtain assignments that align with the rubric, faculty should consider attending workshops that enable them to learn how to create assignments that align with the various dimensions of the rubrics used for General Education assessment.

#### **Selection of Courses**

Another recommendation, first stated in a previous report and is still currently relevant, is considering whether some courses are more conducive to being assessed by these General Education rubrics than other courses. If this is the case, then these courses should be identified. For example, it might be argued that courses that do not require a remedial prerequisite are not as appropriate for General Education assessment as are courses that require a prerequisite. Given our student population, it should be noted that requiring a remedial prerequisite ensures that the individual being assessed is performing at the baseline level of the rubric, without a prerequisite there is the possibility that students would be assessed who would not meet the baseline level of the rubric because they have remedial needs.

#### Pathway Common Core

General Education is largely covered in the required and flexible common core.

Therefore, it is imperative that the Common Core be assessed as broadly as possible. To

address this issue, the General Education Working Group is presently targeting Pathways courses in order to increase under represented courses in the assessment sample.

#### **Feedback Memos**

Faculty who participate in this assessment project continue to receive a confidential memo summarizing how their students performed against these rubrics. Faculty have indicated that these memos are useful. In addition, it might be helpful to invite faculty to discuss the memo in greater detail to identify the implications the information in the memo might have for students and their own pedagogy.

#### **Student Preparation**

Overall, the spring 2018 cohort scored higher than the fall 2017 cohort. A small longitudinal study conducted by the Office of Institutional Research<sup>7</sup> hypothesized that these differences in performance could be attributed to three factors:

- The fall cohort was less able to perform well as a function of how cohorts vary
- Fall cohorts in general consist of students who are relatively underprepared
- Something pertaining to QCC's actions (e.g., pedagogy) caused the variations between the spring and fall semesters.

Though other explanations are possible, this analysis addresses the second proposed reason. It is possible that fall semester cohorts consist of students who are less academically prepared than those in spring cohorts. Analyses were performed to see if there was any evidence supporting this. One prominent factor is student class level. First-time freshmen are somewhat less academically prepared compared to students from higher class levels simply because they have not yet completed at least one semester of college work. An analysis of the composition of the fall and spring semesters revealed that in fact, the fall semesters include many more first-time freshmen than in the spring semesters, as the following table illustrate:

<sup>&</sup>lt;sup>7</sup> This analysis was conducted by Victor Fichea, Ph.D. Principal Investigator for Academy Assessment Protocol

Approximation of Student College Level and GPA among those who Submitted Student
Assignment Artifacts by Fall and Spring Semesters.

	Course Sections which Submitted Artifacts				
	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018
First Time Student %	12%	32%	9%	26%	11%
Average Cum. GPA	2.60	2.53	2.65	2.58	2.67

Note: readmits and first-time non-degree students were included in this group, as they were theorized to be less academically prepared as well.

The results above are for sections of courses in which at least several artifacts were submitted for the general education assessment project. As artifacts did not include any student identifiers, it was impossible to collect data on student status for those who submitted their artifacts. To approximate, data from those course sections which submitted artifacts was used. Fortunately in most cases, about half of the students within a section submitted artifacts. The results from the table reveals that there is a larger proportion of first time students in the fall semesters than in the sping semesters. Cumulative GPA was also examined; the GPA for the fall cohorts was slightly lower than for the spring cohorts.

Overall, there is some evidence that a reason for lower performance on the assessment of the artifacts during the fall semesters is due to the level of academic preparedness. This could be at least partly due to the fact that a larger proportion of fall students were first-time freshmen who have minimal course experience relative to continuing students. Additionally, continuing students consist of those who persisted for at least one semester while the subpopulation of first-time freshmen includes some who would eventually drop-out.

Given the findings of differences between fall and spring groups, it is suggested that future General Education Assessments make comparisons

only between the same semester/season (i.e., fall to fall comparisons or spring to spring comparisons) in order to reduce possible factors which could confound the interpretation of results.

#### **NEXT STEPS**

#### Dissemination of Findings

The findings from this report have been, and will be, shared with a number of stakeholders. The General Education Working group has analyzed the data from this assessment project and contributed their interpretations of the findings to this report. There were also several sessions sponsored by the Center for Excellence in Teaching and Learning (CETL), offered to the Queensborough Community College community to discuss the findings from the fall 2017 and spring 2018 general education assessment projects. Finally this report will be posted on the college's website in order for the college community to have access to it.

#### Future Assessment protocols

As previously mentioned, Queensborough Community College's General Education Assessment protocol and the aforementioned crosswalk honors the college's commitment to assess the CUNY Pathways' student learning outcomes.

As the general education assessment protocol is continually reviewed and refined there will continue to be an intentional effort to increase the number of Pathway's courses in the assessment sample. In order to accomplish this goal, during the fall of 2018, several modifications were made to the protocol. In addition to sending out a standard text email soliciting participation, a service announcement using multi-media technology was used to create a short animated video soliciting participation in this project. This video was created by the Director of Policy Analysis for General Education and Student Learning Outcomes with the assistance of staff from the Center for Excellence in Teaching and Learning, (CETL). Also, the Assistant Dean for the Center for Excellence in Teaching and Learning, and the Interim Assistant Dean of Faculty spoke with several department chairpersons in order to request that they encourage their faculty colleagues to submit artifacts for the fall 2018 semester's assessment project. It is hoped that the use of multiple outreach strategies will result in an increase in the number of Pathway's courses in the fall 2018 general education assessment sample.

# APPENDIX A-TREND DATA

#### **GENERAL EDUCATION OUTCOMES LONGITUDINAL RESULTS**

#### **Analytic Rubric** (Semester by Dimension)

Dimension	Issue: Identify and	Evidence: Present,	Conclusion: Reach	Average Across All
	Explain the Issue,	Organize, and	an Informed	Dimensions
	Problem, or	Evaluate	conclusion or	
	Question	Sufficient and	Solution	
		Relevant Evidence		
Spring 2016	2.82	2.57	2.46	2.62
Fall 2016	2.40	2.12	1.98	2.17
Spring 2017	2.59	2.31	2.09	2.33
Fall 2017	2.41	2.14	2.04	2.20
Spring 2018	2.57	2.28	2.13	2.33

#### Writing Rubric (4 Dimensions over a series of semesters)

Dimension	Awareness of	Content	Control of	Evidence	Average
	Audience,	Development	Grammar and	and/or	Across all
	Purpose and	and	Mechanics	Sources	Dimensions
	Genre	Organization			
Spring 2016	3.11	3.07	2.99	2.65	2.96
Fall 2016	2.45	2.30	2.35	1.94	2.26
Spring 2017	2.77	2.54	2.37	2.25	2.48
Fall 2017	2.54	2.40	2.42	1.98	2.34
Spring 2018	2.65	2.48	2.61	2.06	2.45

#### Writing Rubric (3 Dimensions over a series of semesters)

Dimension	Awareness of	Content	Control of	Average Across all
	Audience,	Development and	Grammar and	Dimensions
	Purpose and	Organization	Mechanics	
	Genre			
Spring 2016	2.57	2.30	2.31	2.39
Fall 2016	2.43	2.31	2.29	2.34
Spring 2017	2.73	2.52	2.42	2.56
Fall 2017	2.57	2.41	2.44	2.47
Spring 2018	2.60	2.45	2.58	2.54

#### **Quantitative Reasoning Rubric** (Semester by Dimension)

Dimension	Identify and	Application of	Analysis,	Average Across all
	Extract Relevant	Quantitative Data	Explanation, and	Dimensions
	Quantitative	to Derive	Interpretation of	
	Information	Information	Quantitative	
			Results	
Fall 2017	2.51	2.33	2.23	2.36
Spring 2018	2.69	2.53	2.32	2.51

#### **Information Management Rubric** (Semester by Dimension)

Dimension	Identify the Scope	Navigate Digital	Use	Average
	of Inquiry or	Resources to	Information	Across All
	Investigation	Obtain Relevant		Dimensions
	Needed for the	Information		
	Assignment			
Fall 2017	2.31	1.82	1.84	1.99
Spring 2018	2.64	2.24	2.16	2.35

# APPENDIX BCOURSES IN STUDY

#### Courses included in the Fall 2017 General Education Assessment Project

BI 111 - Introduction to Human Biology
BI 202 - General Biology 11
BI 311 - Microbiology (Laboratory section)
BI 311 - Microbiology
BI 356 - Principles of Genetics
BU 101 - Principles of Accounting
BU 108 - Income Taxation
BU 401 - Elements of Marketing
BU 701 - Principles of Finance
BU 917 - Health Information Management
CH 127 - Introductory General Chemistry
CH 151L - General Chemistry 1
CH 152L - General Chemistry 11 (Laboratory section)
CIS 205 - Introduction to Information Systems Management
CS 101 - Algorithmic Problem Solving 1
DAN 111 - Introduction to the Art of Dance
ENGL 101 - English Composition 1
ENGL 102 - English Composition 11: Introduction to Literature
ENGL 262 - New York
ENGL 216 - American Literature 11: Civil War to Present
IS 151 - Health of the Nations
HA 202 - Western Massage

HIST 111 - Introduction to Medieval and Early Modern Western Civilization

HA 220 - Pathology for Massage

HIST 127 - Growth of American Civilization 1: Colonial Period Through Reconstruction

LI 401 - Italy Today

LS 222 - Workshop in Reading and Writing for Spanish Heritage Speakers 11

MA 336 – Statistics

MU 101 - Introduction to Music

MU 104 - Jazz: An Introduction

MU 105 - Music Around the World

NU 102 - Safe and Effective Nursing Care Level 11

NU 201 - Safe and Effective Nursing Care Level 111

NU 204 - Nursing and Societal Forces

PYSC 250 - Personality

PYSC 240 - Social Psychology

SP 211 - Speech Communication

TH 111 - Introduction to Theatre

#### Courses included in the Spring 2018 General Education Assessment Project

ARCH 121 - Architectural Design 11

ARTS 151 - Drawing 1

ARTS 252 - Drawing 11

BI 110 - Fundamentals of Life Science

BI 202 - General Biology 11

BI 301 - Anatomy and Physiology 1

BI 311L - Microbiology (Laboratory)

BI 356 - Principles of Genetics

BI 554 - Research Laboratory Internship

BU 101 - Principles of Accounting 1

BU 108 - Income Taxation

BU 401 - Elements of Marketing

BU 701 - Principles of Finance

CH 914 - Independent Study and Research

CIS 205 - Introduction to Information Systems Management

CS 101 - Algorithmic Problem Solving 1

DAN 111 - Introduction to the Art of Dance

ENGL 101 - English Composition 1

ENGL 102 - English Composition 11

ENGL 220 - Introduction to Creative Writing

HA 221 - Pathology for Massage Therapy 11

HE 102 - Health, Behavior and Society

HIST 111 - Introduction to Medieval and Early Modern Western Civilization

HIST 127 - Growth of American Civilization 1: Colonial Period Through Reconstruction

HIST 128 - Growth of American Civilization 11: Reconstruction to the Present

IS 151 - Health of the Nations

LI 401 - Italian Culture Through Film

LS 223 - Workshop in Reading and Writing for Spanish Heritage Speakers 111

MA 336 - Statistics

MUS 101 - Introduction to Music

MUS 105 - Music Around the World

NU 102 - Safe and Effective Nursing Care Level 1

NU 201 - Safe and Effective Nursing Care of Client 111

PSYC 220 - Human Growth and Development

PSYC 240 - Social Psychology

PSYC 250 - Personality

SP 211 - Speech Communication

TH 111 - Introduction to Theater

## APPENDIX C-GRAPHS









