General Education Assessment Plan
SUNY Delhi

Prepared by the Faculty of
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Delhi
STATE UNIVERSITY of NEW YORK

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SUNY DELHI

GENERAL EDUCATION ASSESSMENT PLAN

Revised, Fall 2012

The ultimate goal of the general education assessment program is to establish a process that makes teaching and learning the subjects of continuous improvement. For improvement to occur, assessment results must be discernable and susceptible to use in curricular and instructional revision. A concurrent goal is to establish an assessment program that recognizes the individual strengths of faculty and welcomes intellectual diversity, creative pedagogy and multiple, verifiable measures of student performance.

SUNY Delhi, therefore, offers an assessment program that is faculty driven and builds on its existing curriculum. In addition, the College has established a process for adding courses to its general education program (see below).

The plan makes explicit the objectives of student work such as assignments, exams, lab exercises, and essays, and makes the satisfaction of these explicit objectives a permanent part of the way in which students are evaluated. The objectives for each knowledge/skill area, along with the timetable for carrying out assessment, are included below. The agreed upon process of conducting assessment, and using and reporting results for each knowledge/skill area and accepted course, follow this introduction.

THE FOLLOWING ADDRESSES THE EIGHT POINTS OUTLINED IN THE SUNY GENERAL EDUCATION GUIDELINES

1. **THE OBJECTIVES FOR STUDENT LEARNING IN GENERAL EDUCATION RELATE DIRECTLY TO THE STUDENT LEARNING OUTCOMES DEFINED IN THE IMPLEMENTATION GUIDELINES OF THE PROVOST'S ADVISORY TASK FORCE ON GENERAL EDUCATION.**

   Because this assessment plan is faculty driven, the assessment measures differ between disciplines and across courses. The faculty in each discipline adopted SUNY's learning objectives, or built directly on those listed in the *Implementation Guidelines*. The objectives and assessment measures found in this plan arose from the deliberations of Delhi's liberal arts and sciences faculty. In some areas additional learning objectives were adopted; these are consistent with the Provost's Advisory Task Force outcomes. In each case, the appropriate faculty members established the objectives for each knowledge/skill area, and the corresponding course measures.

2. **PROGRAMATIC ACTIVITIES INTENDED TO ACCOMPLISH THE CAMPUS' OBJECTIVES FOR STUDENT LEARNING IN GENERAL EDUCATION ARE DESCRIBED.**

   SUNY Delhi's process for designating courses as satisfying General Education requirements has been reviewed and approved by the College's curriculum committee.

3. MEASURES SELECTED TO ASSESS STUDENT LEARNING SEEM ABLE TO PROVIDE CREDIBLE EVIDENCE OF THE EXTENT TO WHICH STUDENTS HAVE ACHIEVED THE LEARNING OUTCOMES OR SKILLS STATED IN THE OBJECTIVES.

A conscious effort was made to fashion an assessment plan that, to the extent possible, meshes with established courses and teaching methods. This approach allows the faculty to use the plan in order to appraise the efficacy of existing approaches to evaluation and instruction before making curricular or pedagogical changes.

Measures appropriate to assess skills or knowledge in mathematics or natural science may differ significantly from those reflecting an understanding of historical or humanistic inquiry. In some instances, exams will be used; in other cases, exams, problem sets, essays, or lab exercises designed to measure proficiency in satisfying given objectives will be the norm. In all cases, assessment measures relate directly to the corresponding learning outcomes. Tools are in place that will allow the accumulation of data that can be used to assess the extent to which specific knowledge and skill objectives are being met. The collection of outcomes data, determination of validity, defining acceptable standards of student performance, analyzing the results, and making curricular improvements is the responsibility of the faculty in each respective area.

Faculty will track student performance in satisfying each of the applicable objectives, and explicitly identify the tools by which performance was measured. In all cases, outcomes data will be preserved and be subject, where appropriate, to independent review.

4. THE PLAN PROPOSES STANDARDS TO WHICH STUDENT PERFORMANCE RELATIVE TO THE LEARNING OUTCOMES IN THE OBJECTIVES CAN BE COMPARED.

For each knowledge/skill area, faculty have defined a level of student performance that is agreed to be satisfactory to “meet” reasonable collegiate standards. Beyond this, faculty have established standards considered as “exceeding”, “approaching” or “not meeting” their standards.

Performance standards are to be based on faculty experience in the use of similar or comparable measures in evaluating student achievement. Faculty in all knowledge/skill areas will meet to establish scoring rubrics by which student performance can be assessed. The creation of agreed upon scoring rubrics will maximize the reliability of the assessment process.

5. THE ANTICIPATED RESULTS OF THE ASSESSMENT ARE TO AFFIRM THAT THE LEARNING OBJECTIVES HAVE BEEN ACHIEVED OR MAKE IT POSSIBLE TO IDENTIFY AREAS THAT NEED TO BE ADDRESSED IN ORDER TO IMPROVE LEARNING OBJECTIVES.

A review of the assessment plan and process will occur at the end of each academic year. The plan will allow the faculty to compare the proportion of students meeting the defined standards within and between each SLO. This permits the College to determine the extent to which objectives are being satisfied and to identify areas in which the need to improve student outcomes is most notable.

Upon commencement of the assessment cycle, faculty members whose course will be subject to an assessment will retain each tool used to measure student performance in satisfying each objective. Faculty shall also keep accurate records reflecting student performance on each measure.

The specific plan for each knowledge/skill area addresses the use of assessment results. In general, however, results will be used first by individual instructors, then (aggregated by the dean or chair) shared with departments for possible departmental or divisional actions, and finally shared with the campus community as a whole (see #8 below).

6. THE ASSESSMENT PLAN HAS BEEN REVIEWED AND APPROVED THROUGH THE APPROPRIATE CURRICULUM AND FACULTY GOVERNANCE STRUCTURES.

The plan has been reviewed and approved by the College Senate.

7. THE PLAN ADHERES TO THE TIMETABLE ESTABLISHED BY THE GEAR GROUP AND AGREED TO BY THE UNIVERSITY PROVOST.

Faculty members will include on their syllabi/course information sheets the Student Learning Outcomes for their knowledge/skill area and the agreed on assessment measures. The three-year assessment cycle is as follows:

2011-12/2014-15/2017-18:
Arts
Mathematics (one-third of courses)
Basic Communication (objectives 1- 5)
Natural Science
American History
Critical Thinking

2012-13/2015-16/2018-19:
Foreign Language
Other World Civilizations
Western Civilization
Social Science
Mathematics (one-third of courses)

<u>2013-14/2016-17/2019-20:</u>
Humanities
Mathematics (one-third of courses)
Information Management
Basic Communication (objectives 6 and 7)

8. THE ASSESSMENT PROCESS INCLUDES PROVISIONS FOR EVALUATING THE ASSESSMENT PROCESS ITSELF AND DISSEMINATING ASSESSMENT RESULTS TO THE APPROPRIATE CAMPUS COMMUNITY.

At the conclusion of an assessment cycle, the faculty in each knowledge/skill area will report the results of their assessment to the Dean of Liberal Arts and Sciences. In addition, the revised reporting tool includes areas for faculty to record their steps to be taken to improve the course (beginning the closing the loop activity). These reports will be compiled by the Dean and the data shared with division faculty (who will take further action to improve the courses based on aggregate data), the assessment committee, and the campus community via the assessment website. The assessment committee, the Dean, and the Provost will discuss the assessment results and proposed actions annually. As part of each stage of this process, the assessment process itself will be evaluated and, if necessary, emended for future rounds.

PROCESS FOR THE APPROVAL OF COURSES INTENDED TO SATISFY GENERAL EDUCATION REQUIREMENTS:

Consistent with Delhi's Academic Programs and Services Handbook, courses proposed for inclusion on the list of the College's general education courses are to be submitted to Dean of Liberal Arts and Sciences.

For Courses Offered Within the Division of Liberal Arts and Sciences: To be included on the list of those courses from which students may choose to satisfy general education requirements, a proposed course must receive the approval of the Liberal Arts and Sciences dean and the appropriate faculty in the Liberal Arts and Sciences Division. For example, courses proposed for inclusion on the list of mathematics courses acceptable for general education must have the approval of a majority of the division's math faculty; those courses submitted in anticipation of meeting a natural science requirement must be approved by a majority of the science faculty, etc.

For Courses Offered Within Other Divisions: A course from outside the Liberal Arts and Sciences Division should be approved by the department chair or dean and by the appropriate division faculty before it is referred to the Liberal Arts and Sciences Division for action consistent with the process described above. Once the appropriate approvals are received, the course will then be submitted by the faculty member who proposes acceptance of the course to the College Curriculum Committee for action.

Reporting Form Template
(available for download on assessment website)

I. Course Number/Section/CRN:
II. Instructor:
III. Attribute:
IV. Date:

General Education Course Assessment
SUNY Delhi

Your course section indicated above has been randomly selected for assessment as part of the campus' General Education Assessment program. This course falls under the area of _____ attribute, which includes the specific learning outcome listed on the attached Assessment Form. A sample planning/reporting form is attached in order to assist you as you develop your assessment approach.

In order to conduct your assessment for each learning outcome, you will need to do three things:

1. Plan assessment and gather data on student performance.

    1. Develop specific assessments you can use to test the students' competency in that area. You are the best judge of the methods that should be used to assess the outcomes for your course, but it is important that the measures you use clearly map to the intended outcomes.
    2. Specify prior to the assessment what constitutes exceeding, meeting, approaching, and not meeting standards for each outcome (if this is not specified in the standard rubric used in this GE area).

Use the attached form to indicate for each outcome the data sources you will use to conduct the assessment, the specific assessment measure, and the criteria you have established to define performance. (In general, for each GE area, faculty should agree on one *type* of data source [i.e. everyone will be using questions on the final exam, or an essay assignment], though the particular assignment itself may differ from section to section.) During the semester, use your selected assessment methods to collect the data for your course.

There is a wide variety of ways you can collect data on your students' performance. Potential assessment measures include exam questions, laboratory results, writing assignments, performances or presentations, oral examinations, or portfolios. Again, the area of study is up to the faculty, and so is the choice about how best to determine your students' performance. The keys are that measures must map to learning outcomes and that there are data that can be replicated from semester to semester.

2. Determine strong and weak aspects of your students' performance.

Analyze your data and identify areas in which students are performing well and in which they are performing less well than expected, by comparing actual performance to the criteria for exceeding, meeting, approaching, and not meeting standards. Use the Results Table on the attached form to enter

the proportion of students who exceeded, met, approached, or failed to meet expectations for each outcome. There is also a separate column in this table that allows you to combine the percentage of students who exceeded or met standards. It is not expected that all students will show competence in all areas. A competency area requiring action is one for which less than a specified percentage of students show adequate performance. You specify the standards that determine whether or not action is required.

3. Decide what you will do to improve your course.

Develop a plan for making changes in your course that address any weaknesses in student performance revealed by the assessment. What can you do differently in your course that can help strengthen student performance? Changes need not be limited to the way you deliver content and can include strategies such as course management or out-of-class activities.

Use the Changes to Be Made Based on Results Table on the attached form to indicate these planned changes. If it is your judgment that no changes are needed, note that as well. If the assessment process itself should be emended, in your estimation, state how it could be improved.

This report will be compiled by the Dean and the data shared with division faculty (who will take further action to improve the courses based on aggregate data), the assessment committee, and the campus community via the assessment website. The assessment committee, the Dean, and the Provost will discuss the assessment results and proposed actions annually. As part of each stage of this process, the assessment process itself will be evaluated and, if necessary, emended for future rounds.

Course Number/Section:_____ **Instructor**:_____	**General Education Assessment Summary**	**Semester**: _____ **Number of Students Enrolled** = ___

Learning Outcomes	**Data Source(s)** [List assignments, exercises, exams, and/or questions, etc. that measure this outcome.]	**Assessment Measure** [Describe how the data source(s) are measured, e.g., grading scales, rubrics, etc.]	**Performance Criteria** Describe criteria for categorizing performances as Exceeding, Meeting, Approaching, and Not Meeting the Learning Outcome

General Education Assessment Summary

Results
(Number of Students Assessed = ___)

Learning Outcome	% Exceeding	% Meeting	%Approaching	%Not Meeting	%Exceeding /Meeting

Learning Outcome	Proposed Action(s)

GENERAL EDUCATION PLAN - MATHEMATICS

SUNY and Delhi Learning Outcomes:

Students will demonstrate:

1. the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics;
2. the ability to represent mathematical information symbolically, visually, numerically and verbally;
3. the ability to employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems;
4. the ability to estimate and check mathematical results for reasonableness; and
5. the ability to recognize the limits of mathematical and statistical methods.

Assessment Measures:

The above student learning objectives will be assessed using student performance on exams. Faculty members will identify the assignment or part of an assignment used to measure performance to determine if the learning outcome has been satisfied

Assessment Criteria:

The rubric used for assessment is included in the following pages. Selected examples of student work will be placed in a binder along with the percentage of students from the course that achieved that level of work.

Assessment Methodology:

The work of all students enrolled in sections taught by fulltime faculty will be evaluated, unless this approach does not yield a sufficient sample size for a particular course. If the sample size is not large enough, work of students in adjunct sections will be included. Math faculty will also account for all students who were enrolled in the entire course over the year and look at the pass/fail rate ("passing" will be a C).

For each objective for that course, student work will be categorized into four levels – exceeds the standard, meets the standard, approaches the standard, and fails to meet the standard. The members of the department have agreed on measures that will be used to assess each objective. For a particular course and objective, each faculty member will use the same problem for assessment.

The mathematics courses included in this assessment will follow this schedule:

Year 1	**Year 2**	**Year 3**
Math 106	Math 115	Math 106
Math 110	Math 128	Math 110
Math 115	Math 138	Math 128

Math 150	Math 150	Math 138

The assessment schedule is designed such that, in most cases, specific courses are included in consecutive years in order more effectively to analyze trends in the data. For consistency, the course will be assessed the same semester each year. For example, Math 150 will be evaluated in the Fall 2012 semester and also in the Fall 2013 semester.

The calculus sequence is not included in the above rotation since low enrollment in calculus courses does not permit a sufficient sample size for data analysis.

Use of Results: The goal of the math faculty is that 75% of the students will meet or exceed the standards. Trends in results will be tracked and suggestions made for improvement. These suggestions will be determined and discussed by the mathematics faculty as a group. Faculty will further consider whether student performance and the results of the assessments warrant curricular changes. Then, in conjunction with the faculty, the Dean will consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

Learning Outcome #1: Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics.	
Level	**Criteria**
Exceeds the standard	• The student demonstrates the ability to interpret the variables, parameters, and/or other specific information given in the model. • The student uses the model to draw inferences about the situation being modeled in a manner that is correct and evident. • The interpretation(s) and inference(s) completely and accurately represent the model or answers the question(s)
Meets the standard	• The student demonstrates the ability to interpret the variables, parameters, and/or other specific information given in the model. The interpretation may contain minor flaws. • The student uses the model to draw inferences about the situation being modeled in a manner that may contain some minor flaw(s). • The interpretation(s) and/or inference(s) are incomplete or inaccurate due to a minor flaw, such as a computational or copying error or mislabeling.
Approaches the standard	• The student makes no appropriate attempt to interpret the variables, parameters, and/or other specific information given in the model due to major conceptual misunderstandings. • The student attempts to use the model to make the required inference(s) and/or interpretation(s) but lacks a clear understanding of how to do so. • The interpretation(s) and/or inference(s) are incomplete or inaccurate due to a major conceptual flaw.
Fails to meet the standard	• The student cannot demonstrate an ability to interpret the variables, parameters, and/or other specific information given in the model. • The student cannot use the model to make the required interpretation(s) and/or inference(s). • The interpretation(s) and/or inference(s) are missing or entirely inaccurate. • The student's response does not address the question in any meaningful way • There is no response at all.

Learning Outcome #2: Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically and verbally.	
Level	**Criteria**
Exceeds the standard	• The student fully understands the mathematical information and employs the appropriate representation(s) to display the mathematical information. • The student correctly and accurately employs all the appropriate and required aspects of the representation to display the information. • The representation of the given information is correct and accurate. The student uses the correct format, mathematical terminology,and/or language. Variables are clearly defined, graphs are correctly labeled and scaled, and the representation is otherwise complete as required.
Meets the standard	• The student understands most of the important aspects of the mathematical information and employs the appropriate representation(s) to display the mathematical information with possibly minor flaws such as a simple misreading of the problem or copying error or mislabeling. • The student correctly and accurately employs most of the appropriate and required aspects of the representation to display the information. The representation is lacking in a minor way such as a simple misreading of the problem or copying error or mislabeling. • There is a misrepresentation of the information due to a minor computational/copying error. The student uses mostly correct format, mathematical terminology, and/or language. Variables are clearly defined, graphs are correctly labeled and scaled, but the representation is incomplete in some minor way.
Approaches the standard	• The student does not fully understand the important aspects of the mathematical information and employs the appropriate representation(s) to display the mathematical information with major conceptual flaws. • The student shows some knowledge of how to employ most of the appropriate and required aspects of the representation to display the information. The representation is lacking in a major way. • The representation(s) show some reasonable relation to the information but contains major flaws. The student uses some correct format, mathematical terminology, and/or language. Variables are clearly defined, graphs are correctly labeled and scaled, but the representation is incomplete in some major conceptual way.
Fails to meet the standard	• The student cannot represent the mathematical information in the representation(s) required. • The student completely misinterprets and/or misrepresents the information.

	• The representation(s) is incomprehensible or unrelated to the given information. The process of developing the representation is entirely incorrect. • The student's response does not address the question in any meaningful way. • There is no response at all.

Learning Outcome #3: Students will demonstrate the ability to employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems.	
Level	**Criteria**
Exceeds the standard	• The student demonstrates a full understanding of the problem and/or can identify a specific numeric, algebraic, geometric, or statistical method(s) that is needed to solve the problem. • The student uses the method(s) to solve the problem. The plan for the solution is clear, logical and evident. • The solution is accurate and complete.
Meets the standard	• The student demonstrates some understanding of the problem and/or can identify the specific arithmetic, algebraic, geometric or statistical method(s) needed to solve the problem. • The student uses the method(s) to solve the problem. The plan for the solution is clear, logical and evident but is lacking in a minor way such as a simple misreading of the problem or copying error. • The solution is generally correct but may contain a minor flaw(s).
Approaches the standard	• The student demonstrates only a slight understanding of the problem. The student has difficulty identifying the specific arithmetic, algebraic, geometric or statistical method(s) neededto solve the problem. • The student attempts to use a method(s) that will solve the problem, but the method itself or the implementation of it, is generally incorrect. The plan is not evident or logical. • The solution contains some correct aspects though there exists major conceptual flaw(s).
Fails to meet the standard	• The student demonstrates no understanding of the problem and/or he/she cannot identify the specific arithmetic, algebraic, geometric or statistical method(s) needed to solve the problem. • The student cannot to use a method(s) that will solve the problem. Little or no work is shown that in any way relates to the correct solution of the problem • The student's response does not address the question in any meaningful way. • There is no response at all.

Learning Outcome #4: Students will demonstrate the ability to estimate and check mathematical results for reasonableness	
Level	**Criteria**
Exceeds the standard	• The student can estimate and justify a mathematical result to a problem. • The student can articulate a justification for the estimate and the estimate has been found using a clearly defined, logical plan • The student's response is complete and accurate.
Meets the standard	• The student can estimate and justify a mathematical result to a problem but the estimate or justification contains a minor flaw such as a simple misreading of the problem or computational or copying error or mislabeling. • The student can articulate a justification for the estimate but the student's justification and/or estimate has been found was lacking in some minor way • The student's response addresses all aspects of the question but is lacking in some minor way.
Approaches the standard	• The student can estimate and justify a mathematical result to a problem but the estimate or justification contains a major conceptual flaw. • The student can articulate a justification for the estimate but the student's justification and/or estimate has been found was lacking in some major conceptual way • The student's response addresses some aspect of the question correctly but is lacking in a significant way.
Fails to meet the standard	• The student cannot estimate and/or justify a mathematical result to a problem. • The student's justification is not supported by any logic plan. • The student's response does not address the question in any meaningful way. • There is no response at all.

Learning Outcome #5: Students will demonstrate the ability to recognize the limits of mathematical and statistical methods.	
Level	**Criteria**
Exceeds the Standard	• Student clearly articulates the assumptions/simplifications made in developing a mathematical/statistical model or implementing method(s) or technique(s). • Student provides an accurate description how the results from the model might differ from the real life situation it models.
Meets the Standard	• Student articulates most of the assumptions/simplifications made in developing a mathematical/statistical model or implementing method(s) or technique(s) • Student provides a generally correct description of how the results from the model might differ from the real life situation it models
Approaches the Standard	• Student articulates only some of the assumptions/simplifications made in developing a mathematical/statistical model or implementing method(s) or technique(s). • Student indicates that the conclusions drawn from the model differ from real life but is unable to articulate the cause(s).
Fails to Meet the Standard	• Student does not articulate any assumptions/simplifications made in developing a mathematical/statistical model or implementing method(s) or technique(s). • Student fails to realize that the results are not contextually appropriate. • There was no response at all.

Math 106 – Mathematics for Elementary Teachers II

Math Gen Ed Outcomes	**Assessment Measure**
Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics	Student will draw and interpret line, circle, or bar graphs; dot or scatter, or stem and leaf plot; or frequency tables and histograms.
Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally	Calculate measures of central tendency and dispersion: mean, median, mode, box plot, standard deviation and z score. Student will draw top, front and side views of a 3D figure. Student will use geometric formulas and the Pythagorean Thm. to calculate the lengths of sides, perimeter and areas of triangles, rectangles and circles. Student will explain mathematical terminology.
Students will demonstrate the ability employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Student will calculate the area and perimeter of irregular shape using Pythagorean Thm.
Students will demonstrate the ability to estimate and check mathematical results for reasonableness	Student will estimate measurement in metric and standard units.
Students will demonstrate the ability to recognize the limits of mathematical and statistical methods	Student will explain the differences between theoretical and experimental probabilities.

Math 110 – Contemporary Mathematics

Math Gen Ed Outcomes	**Assessment Measure**
Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics	Problem which requires student to Eulerize a graph and draw the Euler circuit OR linear programming problem which requires student to write the constraint inequalities and profit formula based on the mixture chart
Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally	Linear programming problem which requires student to create mixture chart based on the problem statement
Students will demonstrate the ability employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Fundamental Principle of Counting problem OR Borda Count voting method problem
Students will demonstrate the ability to estimate and check mathematical results for reasonableness	Linear programming problem which requires student to check result for reasonableness (i.e. calculated answer is within the limit of availability) OR Traveling Salesman Problem which requires student to check result for reasonableness
Students will demonstrate the ability to recognize the limits of mathematical and statistical methods	Traveling Salesman Problem (TSP) which requires students to calculate and compare brute force results to another algorithm result(s) and explain why they differ OR Euler circuit problem in which student is required to discuss the assumptions used to create the graph (i.e. both streets can be covered with one pass)

Math 115 - Statistics

Math Gen Ed Outcomes	**Assessment Measure**
Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics	Problem in which student has to analyze stem and leaf plot, histogram or boxplot
Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally	Problem in which student is required to graph a stem and leaf plot, histogram or boxplot
Students will demonstrate the ability employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Confidence interval or hypothesis testing problem
Students will demonstrate the ability to estimate and check mathematical results for reasonableness	Problem in which student is asked if z-score is reasonable or problem in which two graphs are given, with corresponding standard deviations and student is asked if they are reasonable matches
Students will demonstrate the ability to recognize the limits of mathematical and statistical methods	Problems in which student is presented with a survey that involves suspect sampling or problem in which student is asked to determine whether mean or median is appropriate

Math 128 – College Algebra

Math Gen Ed Outcomes	**Assessment Measure**
Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics	Several problems that ask students to determine which line has a greater slope or if the lines have the same slope. One problem has two different sets of data in table form, one problem has two different lines in algebraic form, one problem has two different lines in graphical form (with same scale), and one problem has two different lines in graphical form (with different scales).
Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally	Linear equations word problem. Given two points, write an equation of the line, graph the line, make a prediction and interpret the slope and y intercept in the context of the word problem.
Students will demonstrate the ability employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Solve quadratic equations OR solve exponential equations OR solve system of equations algebraically.
Students will demonstrate the ability to estimate and check mathematical results for reasonableness	Solve equations algebraically and check graphically for either quadratic equation or system of equations. Solution should be a decimal so that students must estimate.
Students will demonstrate the ability to recognize the limits of mathematical and statistical methods	Exponential or linear modeling question where student is asked to make a prediction beyond the limits of the given x values.

Math 138 - Trigonometry

Math Gen Ed Outcomes	**Assessment Measure**
Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics	Students will understand how to label and read a unit circle, and determine the correct trig ratios throughout the quadrants.
Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally	Students will generate wave function graphs by hand and/or technology with appropriate domain and range, frequency, period, amplitude, phase shift, vertical shift. Students will extract vital information pertinent to wave functions, such as amplitude, frequency, period, vertical shift from a graph, and demonstrate the knowledge that these concepts relate to circular motion.
Students will demonstrate the ability employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Students will use order of operations to evaluate formulas such as the law of sines and law of cosines
Students will demonstrate the ability to estimate and check mathematical results for reasonableness	Students will apply the SSA theorem when determining how many triangles exist when certain angles and sides are given. Students will also recognize why certain angles/sides cannot form a triangle.
Students will demonstrate the ability to recognize the limits of mathematical and statistical methods	Students will understand why certain theorem(s) only apply to a limited number of situations. In vector analysis, students understand when the geometric method (head to tail) works well in determining the resultant, and when we need to rely on the component method with numerous vectors.

Math 150 - Precalculus

Math Gen Ed Outcomes	**Assessment Measure**
Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics	Finding and analyzing Cost, Revenue, and Profit. • Write a Cost function, Revenue function and determine a Profit P(x) function. OR • Given a profit function in terms of weeks such as $P(w) = -(w-12)^2 + 35$, students can clearly explain what the y-intercept implies
Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally	Graphing an exponential functions, such as $y = 3^x$
Students will demonstrate the ability employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Solve an application problem with logs.
Students will demonstrate the ability to estimate and check mathematical results for reasonableness	• Solving 2 equations with 2 unknowns. Draw graph, estimate solution, then check. OR • Students are able to solve algebraically $-4(3x+2) \geq -2(6x+1)$ And understand how to use the graphing calculator to check
Students will demonstrate the ability to recognize the limits of mathematical and statistical methods	• Evaluating trig. Functions for right triangles. OR • Students understand that the number of turning points in a polynomial function doesn't necessarily represent the degree of the polynomial.

GENERAL EDUCATION ASSESSMENT, THE NATURAL SCIENCES

SUNY and Delhi Learning Outcomes:

Students will demonstrate:

1. understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis; and
2. application of scientific data, concepts, and models in one of the natural sciences.

Assessment Measures:

The above student learning objectives will be assessed using student performance on exams, laboratory assignments, projects, papers, and/or other relevant assignments that directly test student proficiency in the natural sciences. Faculty members identify the assignment or part of an assignment used to measure performance to determine if the learning outcome has been satisfied. For assignments that involve complex interpretation of student understanding, a faculty-designed rubric may be used to score the work. An example rubric is included subsequently.

Assessment Criteria:

Faculty will record scores for each objective using the tools identified in the list of assessment measures. Student outcomes will be scored using the attached rubric.

Assessment Methodology:

For the course under assessment, each instructor will identify the tool used to evaluate student performance in meeting these objectives. Each instructor will record a distinct score for each of the learning outcomes for every student. If applicable, the instructor should apply a rubric to the assignment or assignments identified on the course assessment form. (Sample assignment types and measures follow.) After gathering their data and determining the strong and weak aspects of the students' performance, the instructor will determine what changes should be made to the course as a result of the assessment. The data will be shared with the Dean who will create a chart of the aggregate data. Then, in conjunction with the faculty, the Dean will consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

Natural Sciences Rubric

Natural Sciences Rubric (example)	**SLO 1: Understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis**	**SLO 2: Application of scientific data, concepts, and models in one of the natural sciences.**
Exceeding 4	The student demonstrates an understanding of scientific observation methodology used to explore natural phenomena. The work is **superior quality**, which is indicated by understanding all 6 of the methods scientists use to explore natural phenomena.	Student demonstrates an **exemplary** ability to make observations, develop hypotheses, collect data, execute experimental technique, and analyze results. Work in this category is indicated when course concepts are consistently mastered.
Meeting 3	The student demonstrates an understanding of scientific observation methodology used to explore natural phenomena. The work is **standard quality,** which is indicated by understanding 4-5 of the methods scientists use to explore natural phenomena.	Student demonstrates a **proficient** ability to make observations, develop hypotheses, collect data, execute experimental technique, and analyze results. Work in this category is indicated when course concepts are usually mastered.
Approaching 2	The student demonstrates an understanding of scientific observation methodology used to explore natural phenomena. The work is a **developing quality**, which is indicated by understanding 2-3 of the methods scientists use to explore natural phenomena.	Student demonstrates a **developing** ability to make observations, develop hypotheses, collect data, execute experimental technique, and analyze results. Work in this category is indicated when course concepts are sometimes mastered.
Not Meeting 1	The student demonstrates an understanding of scientific observation methodology used to explore natural phenomena. The work is **sub-standard quality**, which is indicated by understanding 0-1 of the methods scientists use to explore natural phenomena.	Student demonstrates a **deficient** ability to make observations, develop hypotheses, collect data, execute experimental technique, and analyze results. Work in this category is indicated when course concepts are rarely mastered.

Samples

CHEM 120 INTRODUCTORY CHEMISTRY

OBJECTIVES	DATA SOURCES
Students will demonstrate understanding of methods of data collection and analysis.	Students will answer exam questions about the appropriate method to achieve a goal. For example: "What would be an appropriate technique to physically separate two solids, when one is water soluble and the other is not? Explain."
Students will apply knowledge of how the model of the atom can determine chemical reactivity.	Students will answer exam question regarding the location of protons, neutrons, and electrons. Exam questions would also ask students to determine electron configuration and conclude if the configuration would result in chemical stability or chemical reactivity.

BIOL 230 GENERAL MICROBIOLOGY

OBJECTIVES	MEASURES
Students will understand the structure/function of bacteria at the cellular level.	Students will answer exam questions that will demonstrate knowledge of the cell model. For example: "Why would a Penicillin-class antibiotic be more effective against Gram-positive bacteria?"
Students will apply knowledge of the ability to make observations and draw conclusions with respect to a hypothesis.	Students will use laboratory techniques to identify an unknown microorganism.

GENERAL EDUCATION ASSESSMENT, SOCIAL SCIENCES

SUNY and Delhi Learning Outcomes:

Students will demonstrate:

1. Understanding of the methods social scientists use to explore social phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical and interpretive analysis; and
2. Knowledge of major concepts, models and issues of at least one discipline in the social sciences.

Assessment Measures:

The above student learning objectives will be assessed using student performance on exams, projects, papers, and/or other relevant assignments that directly test student proficiency in the social sciences. Faculty members identify the assignment or part of an assignment used to measure performance to determine if the learning outcome has been satisfied. For assignments that involve complex interpretation of student understanding, a faculty-designed rubric may be used to score the work. An example rubric is included subsequently.

Assessment Criteria:

Faculty will record scores for each objective using the tools identified in the list of assessment measures. Student outcomes will be scored using the attached rubric.

Assessment Methodology:

For the course under assessment, each instructor will identify the tool used to evaluate student performance in meeting these objectives. Each instructor will record a 1, 2, 3, or 4 score on each of the learning outcomes for every student. The instructor will apply the rubric to the assignment or assignments identified on the course assessment form. After gathering data and determining the strong and weak aspects of the students' performance, the instructor will determine what changes should be made to the course as a result of the assessment. The data will be shared with the Dean who will create a chart of the aggregate data. Then, in conjunction with the faculty, the Dean will consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

SUNY Delhi Social Sciences Rubric

	Student Learning Outcome 1: **Understanding of the <u>methods</u> social scientists use to explore social phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical and interpretive analysis**	**Student Learning Outcome 2:** **Knowledge of major <u>concepts</u>, models and issues of at least one discipline in the social sciences.**
Exceeding 4	Recognizes and has a sophisticated understanding of the methods social scientists employ and is able to identify appropriate techniques related to a specific issue/topic or the field as a whole with an awareness of their limitations. Details demonstrating comprehension are detailed and correct.	Restates major concept, major model, or major issue in his/her own words, applies this information to the issue under study, AND provides some analysis and evaluation of the concept, model, or issue.
Meeting 3	Recognizes and understands the methods social scientists use, provides some explanation and is able to identify appropriate techniques related to a specific issue/topic or the field as a whole. Details demonstrating comprehension have some information and are correct.	Restates major concept, major model, or major issue in his/her own words, applies this information to the issue under study.
Approaching 2	States the methods social scientists use without explanation and demonstrates some understanding of the methods social scientists employ related to a specific issue/topic or the field as a whole. Details demonstrating comprehension are simplistic and generally correct.	States major concept, major model, or major issue in its original wording, incomplete understanding of how it relates to the issue under study.
Not Meeting 1	No demonstrated recognition or understanding of the methods social scientists employ related to a specific issue/topic or the field as a whole. Details related to comprehension are incorrect or absent.	No mention of major concepts, major models, or major issues in this field in relation to the issue under study.

General Education Plan- American History

SUNY and Delhi Learning Outcomes:

Students will demonstrate …

1. knowledge of a basic narrative of American history: political, economic, social and cultural, including knowledge of unity and diversity in American society;
2. knowledge of common institutions in American society and how they have affected different groups; and
3. understanding of America's evolving relationship with the rest of the world

Assessment Measures:

The student learning outcomes will be assessed by individual faculty based on measurements including specific exams, papers or projects designed by the instructor with a scoring rubric. Faculty will identify the tool used and the scoring rubric for the measurement. There is an expectation that 65% of all students will meet or exceed the standards set.

Assessment Criteria:

Faculty will record scores for each objective using the instructor's rubric for a particular assigned piece of assessment.

Assessment Methodology:

The American History courses will be assessed on a tri-annual basis. The instructor will assess a representative sample of the student work based on the assignment for assessment. The faculty member will consider the students overall performance; strengths and weaknesses and make decisions whether the outcomes warrant a curricular change. The faculty will discuss the findings as a group, looking at outcomes and considering possible changes depending on overall results.

The assessment data will be forwarded to the Dean, who will create a chart aggregating the assessment findings. The Dean will have input to the faculty as to whether the findings warrant further curricular changes. The results of the tri-annual process will be forwarded to the appropriate on and off campus offices.

Learning Outcomes	**Type of Assessment Utilized**	**Assessment Measures**	**Performance Criteria Rubric (attached to this document)**
Knowledge of a basic narrative of American history: political, economic, social and cultural including knowledge of unity and diversity in American history	Essay, quiz, exam, research paper, instructor's choice of tool	Use attached rubric	Use attached document
Knowledge of common institutions in American society and how they affected different groups	Essay, quiz, exam, research paper, instructor's choice of tool	Use attached rubric	Use attached document
Understanding of America's evolving relationship with the rest of the world	Essay, quiz, exam, research paper, instructor's choice of tool	Use attached rubric	Use attached document

Standards	**Basic narrative of American History**	**Knowledge of common institutions in American society and their effects**	**America's evolving relationship with the world**
Exceeding	The student demonstrates a well-rounded understanding of the narrative of American history. Mechanics of grammar and critical thinking are applied	The student demonstrates a major understanding the common institutions of American history. Mechanics of grammar and critical thinking are applied.	The student demonstrates a major understanding of America's evolving relationship with the world. Mechanics of grammar and critical thinking are applied
Meeting	The student demonstrates an adequate, although incomplete, understanding of the narrative of American history. Substantive grammar and some critical thinking applied	The student demonstrates an adequate, although incomplete, understanding of the common institutions of American history. Substantive grammar and some critical thinking applied.	The student demonstrates an adequate, although incomplete, understanding of America's evolving relationship with the world. Substantive grammar and some critical thinking applied.
Approaching	The student demonstrates some understanding of narrative of American history. Lacks grammar skills and small evidence of critical thinking	The student demonstrates some understanding of the common institutions of American history. Lacks grammar skills and small evidence of critical thinking.	The student demonstrates some understanding of America's evolving relationship with the world. Lacks grammar skills and small evidence of critical thinking.
Not Meeting	The student has little to no ability to demonstrate an understanding of the narrative of American history. Lacks fundamental grammar and critical thinking skills.	The student has little to no ability to demonstrate understanding of the institutions of American history. Lacks fundamental grammar and critical thinking skills.	The student has little to no ability to demonstrate understanding of America's evolving relationship with the world. Lacks fundamental grammar and critical thinking skills.

General Education Plan- Western Civilization

SUNY and Delhi Learning Outcomes:

Students will demonstrate …

1. knowledge of the development of the distinctive features of the history, institutions, economy, society and culture of Western Civilization; and
2. relate the development of Western civilization to that of other regions of the world

Assessment Measures:

The student learning outcomes will be assessed by individual faculty based on measurements including specific exams, papers or projects designed by the instructor with a scoring rubric. Faculty will identify the tool used and the scoring rubric for the measurement. There is an expectation that 65% of all students will meet or exceed the standards set.

Assessment Criteria:

Faculty will record scores for each objective using the instructor's rubric for a particular assigned piece of assessment.

Assessment Methodology:

The Western Civilization courses will be assessed on a tri-annual basis. The instructor will assess a representative sample of the student work based on the assignment for assessment. The faculty member will consider the students overall performance; strengths and weaknesses and make decisions whether the outcomes warrant a curricular change. The faculty will discuss the findings as a group, looking at outcomes and considering possible changes depending on overall results.

The assessment data will be forwarded to the Dean, who will create a chart aggregating the assessment findings. The Dean will have input to the faculty as to whether the findings warrant further curricular changes. The results of the tri-annual process will be forwarded to the appropriate on and off campus offices.

Standards	**Knowledge of the development of the distinctive features of the history, institutions, economy, society and culture of Western Civilization**	**Relate the development of Western civilization to that of other regions of the world**
Exceeding	The student demonstrates a well-rounded understanding of Western civilization. Mechanics of grammar and critical thinking are applied.	The student demonstrates a major understanding of the relationship of Western civilization to other regions of the world. Mechanics of grammar and critical thinking are applied.
Meeting	The student demonstrates an adequate, although incomplete, understanding of Western civilization. Substantive grammar and some critical thinking applied.	The student demonstrates an adequate, although incomplete, understanding of Western civilization to other regions of the world. Substantive grammar and some critical thinking applied.
Approaching	The student demonstrates some understanding of Western civilization. Lacks grammar skills and small evidence of critical thinking.	The student demonstrates some understanding of the relationship of Western civilization to other regions of the world. Lacks grammar skills and small evidence of critical thinking.
Not Meeting	The student has little to no ability to demonstrate an understanding of Western civilization. Lacks fundamental grammar and critical thinking skills.	The student has little to no ability to demonstrate understanding of the relationship of Western civilization to other regions of the world. Lacks fundamental grammar and critical thinking skills.

General Education Plan- Other World Civilizations

SUNY and Delhi Learning Outcomes:

Students will demonstrate:

1. knowledge of either a broad outline of world history, or
2. knowledge of the distinctive features of the history, institutions, economy, society, culture etc., of one non-Western civilization.

Assessment Measures:

The student learning outcomes will be assessed by instructors based on measurements including specific exams, papers or projects designed by the instructor with a scoring rubric.

Assessment Criteria:

We expect that at least 65% of students will meet or exceed the standards set. Faculty will record scores for each objective using the rubric.

Assessment Methodology:

For the course under assessment, each instructor will assess a representative sample of the student work based on the assignment for assessment. The faculty member will record a score for the applicable outcome for each student. After gathering date for the course, the instructor will determine the strengths and weaknesses of the students in general, and make decisions whether the outcomes warrant a curricular change. The faculty will then discuss the findings as a group, looking at outcomes and considering possible changes depending on overall results.

The assessment data will be forwarded to the Dean, who will create a chart aggregating the assessment findings. The Dean will have input to the faculty as to whether the findings warrant further curricular changes. The results of the process will be forwarded to the appropriate on and off campus offices.

Other World Civilizations Rubric

Standards	**Broad outline of World History**	**Distinctive Features of one non-Western civilization**
Exceeding	The student demonstrates a well-rounded understanding of World history. Mechanics of grammar and critical thinking are applied.	The student demonstrates a major understanding the multi-faceted history of a non-Western civilization. Mechanics of grammar and critical thinking are applied.
Meeting	The student demonstrates an adequate, although incomplete, understanding of World history. Substantive grammar and some critical thinking applied.	The student demonstrates an adequate, although incomplete, understanding of a non-Western civilization's history. Substantive grammar and some critical thinking applied.
Approaching	The student demonstrates some understanding of World history. Lacks grammar skills and small evidence of critical thinking.	The student demonstrates some understanding of a non-Western civilization's history. Lacks grammar skills and small evidence of critical thinking.
Not Meeting	The student has little to no ability to demonstrate an understanding of World history. Lacks fundamental grammar and critical thinking skills.	The student has little to no ability to demonstrate understanding of a non-Western civilization's history. Lacks fundamental grammar and critical thinking skills.

GENERAL EDUCATION ASSESSMENT, HUMANITIES

SUNY Learning Outcomes:

Students will: demonstrate knowledge of the conventions and methods of at least one of the humanities in addition to those encompassed by other knowledge areas required by the General Education program.

Delhi Objectives:

Students will

1. show proficiency with the specialized vocabulary, historical context and breadth of the field *(measures the conventions of one area of the humanities);*

2. develop an interpretation and / or argument in response to a text or texts (measures the *conventions and methods of one area of the humanities).*

Assessment Measures: The above student learning objectives will be assessed using faculty-designed scoring rubrics, thus assuring the validity of the assessment measures. We expect that at least 70% of students will meet or exceed the standard in this area.

Assessment Criteria: Faculty will record scores for each objective using the faculty-designed rubrics. A sample scoring rubric is included below.

Assessment Methodology: The Humanities will be assessed in the fall semester of year three; both learning outcomes will be assessed at this time. All full-time humanities instructors and a random sample of 50% of adjunct instructors in humanities (as designated by the Dean of Liberal Arts & Sciences) will participate in the assessment process.

Each instructor will apply the relevant rubrics to the assignment(s) identified on the course assessment form. Faculty will have the flexibility to assess both learning outcomes in one assignment or to divide them among more than one. After gathering their data and determining the strong and weak aspects of the students' performance, the instructor will determine what changes should be made to the course as a result of the assessment. In addition, faculty will meet within 30 days of the end of the semester to collectively discuss overall outcomes and possible actions as a result of the assessment.

The data will also be shared with the Dean, who will aggregate the data and, in conjunction with the faculty, consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

VOCABULARY AND CONTEXT RUBRIC

VOCABULARY:

Exceeding Standard	Meeting Standard	Approaching Standard	Not Approaching Standard
Specialized vocabulary is used correctly and at appropriate moments throughout the student's writing. Terminology is incorporated fluently.	Specialized vocabulary is used correctly. Incorporation of the vocabulary may be occasionally awkward but should not create confusion for the reader.	Specialized vocabulary is used correctly most often, though there may be occasional instances of misunderstanding. Incorporation of this vocabulary may be awkward or distracting.	Specialized vocabulary is either absent or demonstrates definite misunderstanding.

HISTORICAL CONTEXT AND BREADTH OF THE FIELD:

Exceeding Standard	Meeting Standard	Approaching Standard	Not Approaching Standard
The writing demonstrates a clear awareness that the text under consideration was composed within a specific context, responding to particular circumstances. The writing demonstrates an understanding of significant concerns or issues across the breadth of the discipline.	The writing acknowledges historical context but may not thoroughly indicate its significance. The writing refers to and attempts to understand significant concerns or issues across the breadth of the discipline.	The writing gestures toward historical context, but may make anachronistic assumptions, for example presuming that contemporary concerns were or ought to have been concerns of the text under consideration. The writing refers to significant concerns or issues across the breadth of the discipline, but might not do more than list those concerns or generalize about them.	The writing displays no awareness of context. The writing treats the text under consideration in isolation from any other concerns of the discipline.

INTERPRETATION RUBRIC

Exceeding Standard	Meeting Standard	Approaching Standard	Not Approaching Standard
The student's work provides an identifiable, original, comprehensive, and clearly focused interpretation of or argument in response to a text.	The student's work provides an identifiable and clearly focused interpretation of or argument in response to a text. The response is adequately but may not be fully developed.	The student's work provides an identifiable interpretation of or argument in response to a text. The response is inadequately developed and may lack focus.	The student's work provides no identifiable interpretation of or argument in response to a text. The work may, instead, opt for lower-order tasks such as mere summary or exclusively personal responses.

GENERAL EDUCATION ASSESSMENT, THE ARTS

SUNY and Delhi Learning Outcomes:

Students will. ..

1. demonstrate understanding of at least one principle form of artistic expression and the creative process inherent therein.

Assessment Measures: The above student learning objective will be assessed using a faculty-designed rubric. Students will demonstrate understanding of form and process either by showing knowledge of artistic form or demonstrating technical proficiency in that category of expression. We expect that at least 75% of students will meet or exceed the standard in this area.

Assessment Criteria: Faculty will record scores for each objective using the tools identified in the list of assessment measures. Students receiving a score of A- (or 90%) or above shall be considered to have exceeded the standard for the respective objective. Those receiving between a B- and B (or from 80% to 89%) are deemed to have met the appropriate standard. Those receiving from C- to C (70% to 79%) are approaching the standard. Students scored at D+ (or 69%) or below shall be deemed below standard.

Assessment Methodology: Each instructor will apply rubric to the assignment or assignments identified on the course assessment form. After gathering their data and determining the strong and weak aspects of the students' performance, the instructor will determine what changes should be made to the course as a result of the assessment.

The data will also be shared with the Dean who will create a chart of the aggregate of this data. Then, in conjunction with the faculty, the Dean will consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

Arts Rubric

	Technical Proficiency	**Knowledge of Form**
Exceeding 4	The student demonstrates an understanding of the principles and elements used in the art form under study, and demonstrate sensitivity to, and creativity with the medium chosen. The work produced will demonstrate **high quality**, and be presented in a professional manner.	Student demonstrates an **exemplary** ability to analyze and interpret the art form under study.
Meeting 3	The student demonstrates an understanding of the principles and elements used in the art form under study, and demonstrate sensitivity to, and creativity with the medium chosen. The work produced will demonstrate **medium quality**, and be presented in a somewhat professional manner.	Student demonstrates **proficient** ability to analyze and interpret the art form under study.
Approaching 2	The student demonstrates an understanding of the principles and elements used in the art form under study, and demonstrates some sensitivity to, and creativity with the medium chosen. The work produced demonstrates **a developing quality**, and be presented in an acceptable manner.	Student demonstrates a **developing** ability to analyze and interpret the art form under study.
Not Meeting 1	The student demonstrates occasional understanding of the principles and elements used in the art under study, but has difficulty demonstrating sensitivity to, and creativity with the medium chosen. The work produced is **sub-standard quality**, and presented in a unprofessional manner.	Student demonstrates **deficiencies** in ability to analyze and interpret the art form under study.

GENERAL EDUCATION PLAN - FOREIGN LANGUAGE

SUNY and Delhi Learning Outcomes:

Students will demonstrate:

1. basic proficiency in the understanding and use of a foreign language; and
2. knowledge of the distinctive features of culture(s) associated with the language they are studying.

Assessment Measures:

The above student learning objectives will be assessed using a departmentally-designed rubric applied to a written and an oral example of student work. We expect that 75% of students will meet or exceed the standard in this area.

Assessment Criteria:

Faculty will record scores for each objective using the rubric, included below.

Assessment Methodology:

All sections of all foreign language courses will participate in the assessment, and both learning outcomes will be assessed at the same time. For outcome #1, a combined score of 8 or better will count as exceeding; a score of 5-7 of better will count as meeting; a score of 4-3 will count as approaching; and a score of 2 or lower will count as not meeting.

After gathering their data and determining the strong and weak aspects of the students' performance, the instructor will determine what changes should be made to the course as a result of the assessment. The data will also be shared with the Dean, who will aggregate the data and, in conjunction with the faculty, consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

Foreign Language Rubric

	Exceeds -3 pts	Meets -2 pts	Approaches -1 pt	Not Meeting -0 pts	
Comprehension	understands spoken language almost perfectly; understanding may be indicated by appropriate response; repetition not required	understands most of what is spoken, but may require some time to process words or phrases; may need the occasional word repeated	understands spoken language somewhat, but misses many words or phrases; requires frequent pauses and/or repetition	does not understand spoken language	
Speaking	uses various different sentences structures at the appropriate level of complexity, minor mistakes; consistently appropriate vocabulary	some significant errors; tends to overuse simple construction; some repetition in structures; generally accurate vocabulary with a few errors and/or repetitions;	frequent significant errors; meaning often confused or obscured; very limited vocabulary; many repetitions	vocabulary extremely limited; English interference frequent	
Writing	uses various different sentences structures at the appropriate level of complexity, minor mistakes; consistently appropriate vocabulary	some significant errors; tends to overuse simple construction; some repetition in structures; generally accurate vocabulary with a few errors and/or repetitions	frequent significant errors; meaning often confused or obscured; very limited vocabulary; many repetitions	vocabulary extremely limited; English interference frequent	
SLO 1 total					
Culture	writes required number of sentences; demonstrates significant knowledge of cultural differences; well-thought-out and carefully developed with effective supporting detail; interesting to read	writes almost all required number of sentences; demonstrates partial knowledge of cultural differences; does not fully explore the topic; may incompletely support some ideas or includes irrelevant ideas	writes few sentences; demonstrates little knowledge of cultural differences as applied to the situational context described; explores topic only superficially and develops inadequately many ideas; ideas may be unsupported or irrelevant	writes very little; demonstrates no knowledge of cultural differences as applied to the situational context described	

GENERAL EDUCATION ASSESSMENT, BASIC COMMUNICATION

SUNY Learning Outcomes:

Students will:

- produce coherent texts within common college-level written forms;
- demonstrate the ability to revise and improve such texts;
- research a topic, develop an argument, and organize supporting details;
- develop proficiency in oral discourse; and
- evaluate an oral presentation according to established criteria.

Delhi Learning Outcomes:

Students will. ..

1. produce coherent, college-level written texts;
2. demonstrate the ability to revise and improve their own college-level written texts;
3. use basic research techniques to research a topic; locate, evaluate, and synthesize information from approrpriate sources;
4. develop well-reasoned arguments with supporting details;
5. develop proficiency in oral discourse; and
6. evaluate an oral presentation according to established criteria.

Assessment Measures:

The above student learning objectives will be assessed using faculty-designed scoring rubrics, thus assuring the validity of the assessment measures. We expect that at least 70% of students will meet or exceed the standard in this area.

Assessment Criteria:

Faculty will record scores for each objective using the faculty-designed rubrics. Three sample scoring rubrics are included below.

Assessment Methodology:

The written and oral components of Basic Communication will be assessed separately within the 3-year General Education assessment cycle. The 5 written learning outcomes (outcomes 1-5) will be assessed together. All full-time composition instructors and a random sample of 50% of adjunct instructors in composition (as designated by the Dean of Liberal Arts & Sciences) will participate in the assessment process.

Each instructor will apply the relevant rubrics to the assignment(s) identified on the course assessment form. Faculty will have the flexibility to assess all 5 learning outcomes in one paper or to divide them

among more than one. After gathering their data and determining the strong and weak aspects of the students' performance, the instructor will determine what changes should be made to the course as a result of the assessment. In addition, faculty will meet within 30 days of the end of the semester to collectively discuss overall outcomes and possible actions as a result of the assessment.

The data will also be shared with the Dean, who will aggregate the data and, in conjunction with the faculty, consider whether student performance and the results of the assessments warrant curricular changes. The results of each year's assessment process will be distributed to appropriate offices both on and off campus.

Rubric for Assessing Basic Communication Outcome 1

- **Students will demonstrate the ability to produce coherent college-level written texts.**

Exceeding:

Writer presents an easily identifiable, focused, original, and thought-provoking controlling purpose or thesis. The paper moves coherently, logically, and even creatively from an engaging introduction to a well-demonstrated conclusion. Paragraphs fit within this structure coherently and present pertinent examples and evidence to support central and subsidiary ideas. Sentence structure displays sophistication and variety; transitions add to the logical development of the topic. The essay exhibits a solid command of word variety and a tone and diction appropriate for the subject and its implied audience. Mechanics (grammar, punctuation, spelling and documentation, if needed) are nearly flawless.

Meeting:

Writer presents an identifiable and focused controlling purpose or thesis. The paper moves coherently and logically from a satisfying introduction to a solid conclusion. Paragraphs fit within this structure and present examples and evidence to support the ideas presented. For the most part, sentences are well constructed and transitions are sound—though the sequence of ideas may occasionally be awkward. The essay exhibits some degree of control over the tone and diction appropriate for the subject and its implied audience. Mechanics (grammar, punctuation, spelling and documentation, if needed) are mostly accurate.

Approaching:

Writer presents a wandering, vague, or unfocused controlling purpose or thesis. The paper moves awkwardly from a weak introduction to a conclusion that does not adequately represent the body of the paper. Basic paragraphing exists, but often fails to support or even recognize a central idea, and the use of evidence and examples is inadequate. Sentence and paragraph transitions are often unclear, awkward, indirect, and/or illogical. Tone and diction are often inconsistent and/or inappropriate for the subject and its implied audience. Mechanics (grammar, punctuation, spelling and documentation, if needed) are not well executed and may, at times, obscure meaning.

Not Meeting:

Writer fails to present a controlling purpose or thesis; consequently it is difficult to identify exactly what the thesis is. The essay moves from an unsatisfactory introductory paragraph to an ending that does not serve as a conclusion, thus conveying the sense that much of what has been presented is unresolved. Sentence structure is often awkward and transitions are ineffectual and/or abrupt or simply missing. Diction, tone, and word choice are not appropriate for the subject or for the implied audience. Mechanics (grammar, punctuation, spelling and documentation, if needed) disrupt reading and often obscure meaning.

Rubric for Assessing Basic Communication Outcome 2

- **Students will demonstrate the ability to revise and improve their own college-level written texts.**

Exceeding:

Writer demonstrates clear evidence of an ability to revise by altering content and approach, by reorganizing material, or by clarifying and strengthening the coherence of ideas. Alterations may include the addition of new material, the deletion of unhelpful material, the substitution of more relevant material for less relevant material, the strengthening of transitions, introductions, and conclusions, and the rewriting of individual sentences. The mechanics (grammar, punctuation, spelling and documentation, if needed) of the final revision are nearly flawless.

Meeting:

Writer demonstrates the ability to revise by refining the content, sharpening the focus, and improving structure, clarity, and coherence. Refining content may include clearer presentation of evidence, shifting of emphasis to foreground the most relevant material, providing improved transitions that keep the focus evident, and reworking the introduction or conclusion as well as rewriting individual sentences. The mechanics (grammar, punctuation, spelling and documentation, if needed) are mostly accurate and rarely impede meaning.

Approaching:

Writer demonstrates a lack of ability to revise in any substantial way. Whatever revision has been done has not been sufficient to improve the content, focus, structure, clarity, and coherence of an earlier draft. Such revision may very well be limited to sections of the essay and demonstrate a lack of awareness of how even small changes can affect the entire paper.
Mechanics (grammar, punctuation, spelling and documentation, if needed) have either not improved significantly or appear to be the only focus of the revision.

Not Meeting:

Writer demonstrates a lack of ability to revise at the level of content or structure. Either changes do not improve these features or are focused almost solely on mechanics.

RUBRIC FOR CITATION AND INTEGRATING SOURCES

CITATIONS:

Exceeding Standard	**Meeting Standard**	**Approaching Standard**	**Not Approaching Standard**
Parenthetical citations: • Appear after quotations, summaries, and paraphrased material drawn from sources when called for • Contain the appropriate information • Use the correct formatting • Are punctuated correctly (i.e. punctuation appears after citation except in cases of indented quotations)	Parenthetical citations: • Appear after quotations, summaries, and paraphrased material drawn from sources when called for • Contain the appropriate information • May deviate from the correct formatting by using abbreviations (e.g. p., pp., pg) or inappropriate commas • May not be punctuated correctly (i.e. punctuation appears before citation)	Parenthetical citations: • Appear after most quotations, summaries, and paraphrased material drawn from sources when called for • May be missing some of the appropriate information, though a good faith effort has been made to indicate the source. • May add unnecessary information.	Parenthetical citations: • Do not appear in the paper or are missing from significant portions of the paper. • Appear after only quotations drawn from sources; summarized and paraphrased material is not cited. • Contain inappropriate information (e.g. only a website address)
Works Cited Lists: • Are alphabetized • Contain every source used in the paper • Contain all pertinent information for each source • Order all information correctly within individual entries • Are properly capitalized • Contain appropriate formatting (i.e. underlining or italics, quotation marks, etc.) • Contain proper punctuation	Works Cited Lists: • May not be alphabetized • Contain every source used . • Contain all pertinent information for each source • Order all information correctly within individual entries • May not be entirely properly capitalized, such as there might be missing capitalization in titles • Contain appropriate formatting (underlining or italics, quotation marks, etc.)	Works Cited Lists: • Contain every source used in the paper. • May not contain all of the pertinent information for each source • May not provide some information in the correct order within individual entries • Contain many or major errors in punctuation between elements.	Works Cited Lists: • Does not exist • Does not contain every source used in the paper • Does not provide pertinent information for the source (e.g. provides only a URL address)

between elements (periods, commas, colons, etc.)	• Contain minor errors in punctuation between elements.		

INTEGRATING SOURCES:

Exceeding Standard	Meeting Standard	Approaching Standard	Not Approaching Standard
• It is clear where source material begins and ends • All material drawn from sources is introduced by a signal phrase or transition when necessary. • Appropriateness, significance, and comprehension of source material is apparent. • Each source's legitimacy and/or credibility is established • Connections *between* sources are discussed and analyzed • Each source is integrated with the student's own thinking	• It is clear where source material begins and ends • Most material drawn from sources is introduced by a signal phrase or transition when necessary. • Appropriateness, significance, and comprehension of source material is apparent.	• It is not clear where source material begins and/or ends • Material drawn from sources is not introduced by a signal phrase or transition. • Appropriateness and/or comprehension of source material is not apparent though some attempt has been made to discuss the source.	• Sources are not used. • "Hit and run" quotations, summaries, and paraphrases appear (i.e. source material is dropped in without any explanation at all)

Course Number/Section:_____ **Instructor**:_____	**General Education Assessment Summary** **Basic Communication (GE 10)**	**Semester**: _____ **Number of Students Enrolled** = ___

Learning Outcomes	**Data Source(s)** [List assignments, exercises, exams, and/or questions, etc. that measure this outcome.]	**Assessment Measure** [Describe how the data source(s) are measured, e.g., grading scales, rubrics, etc.]	**Performance Criteria** Describe criteria for categorizing performances as Exceeding, Meeting, Approaching, and Not Meeting the Learning Outcome
Students will develop proficiency in oral discourse	Oral presentation	"Oral Performance" Rubric	Score on Rubric: Exceeds 9-8 Meets 7-6 Approaches 5-3 Does not Meet 2-0
Students will evaluate an oral presentation according to established criteria	Student evaluation of oral presentation	"Oral Evaluation" Rubric	Score on Rubric: Exceeds 3 Meets 2 Approaches 1 Does not Meet 0

Oral Presentation Rubric

	Organization	Expression	Presentation
Exceeds **(3)**	I followed the ideas easily. The main point was very clear. Individual points were well developed.	The speaker used language that was vivid, clear, and appropriate. The presentation was highly articulate.	I found the speaker very engaging. The speaker's delivery was fluent. The speaker frequently looked up from notes.
Meets **(2)**	I followed the ideas. The main point was reasonably clear. Individual points showed some evidence of development.	The speaker used language that was reasonably clear and appropriate. The presentation was moderately articulate.	I found the speaker moderately engaging. The speaker's delivery was reasonably fluent. The speaker looked up from notes often enough that he/she did not seem to be simply reading.
Approaches **(1)**	I had moderate difficulty following the ideas. The main point was somewhat obscure. Individual points sometimes lacked development.	The speaker used language that was occasionally unclear or inappropriate. The presentation was occasionally awkward.	I found the speaker only somewhat engaging. The speaker's delivery was occasionally halting. The speaker relied excessively on notes.
Not Meet **(0)**	I had much difficulty following the ideas. The main point was very obscure. Individual points generally lacked development.	The speaker used language that was frequently unclear or inappropriate. The presentation was frequently awkward.	I did not find the speaker engaging. The speaker's delivery was halting. The speaker seemed to be merely reading.
SCORES	**Organization:**	**Expression:**	**Presentation:**
COMMENTS			

Evaluation of Oral Presentation Rubric

	Using the Oral Presentation Rubric, the student evaluator…
Exceeds **(3)**	Noticed and commented appropriately upon the relevant aspects of organization, presentation, and expression for this speech, and could articulate why the speech did or did not work well.
Meets **(2)**	Noticed and commented upon most of the relevant aspects of organization, presentation, and expression for this speech, though he/she may have missed a few points. Could articulate at least some of the ways the speech did or did not work well.
Approaches **(1)**	Could comment upon only a portion of the relevant aspects of organization, presentation, and expression for this speech, missing many important points. Was not able to articulate many reasons for the success or failure of the speech.
Does Not Meet **(0)**	Was unable to identify the relevant aspects of organization, presentation, and expression for this speech; did not articulate cogent reasons for the success or failure of the speech.

SCORE

COMMENTS

INFORMATION MANAGEMENT AND CRITICAL THINKING

The information management and critical thinking competencies are satisfied via inclusion in the general education program. All students must demonstrate computer proficiency either during their initial assessment and placement at SUNY Delhi or via successful completion of at least one course at the level of Microcomputer Applications (CITA 110) or above. Students must also complete either Freshman Composition (ENGL 100) or Advanced Composition (ENGL 200). Students in ENGL 100 and ENGL 200 (as well as other courses) must demonstrate proficiency in research skills and work explicitly with library staff to develop this competency. These skills culminate in the completion of a research essay.

For purposes of the critical thinking competency, research essays for ENGL 100 and 200 will be assessed by the faculty in order to gauge student proficiency in: 1) developing well-reasoned arguments, 2) identifying, analyzing, and evaluating arguments in their work, and the work of others and 3) understanding the use of basic research techniques. More detail concerning the assessment of these outcomes is given in the section on basic communication, above.

Microcomputer Applications includes an overview of information processing, computer hardware and software and microcomputers and requires hands-on experience in the use of common types of application software, including word processing, spreadsheets database management and graphics, which certainly introduces students to the basic operations of the personal computer.

The rubrics by which faculty members will appraise students' proficiency in satisfying these competencies, and the corresponding standards follow below.

In addition, these skills are infused throughout other parts of the curriculum. For example, critical thinking skills are infused within the social sciences, humanities and history, among other areas. For each of these knowledge areas, satisfaction of at least one of the objectives appraises students' ability to identify, analyze and evaluate arguments and to develop arguments of their own. Given Delhi's distribution requirements, no student will be eligible to graduate without encountering critical thinking exercises in multiple disciplines.

COMPETENCY	OUTCOME	COURSE(S)	MEASURE
Critical Thinking	Identify, analyze and evaluate arguments as they occur in their own or others' work.	ENGL 100 ENGL 200 (and others)	Students will write a well-reasoned,-organized, and-supported research essay that accurately integrates the arguments and opinions of others.
Critical Thinking	Develop well-reasoned arguments.	ENGL 100 ENGL 200 (and others)	Students will write a well-reasoned,-organized, and-supported research essay that includes a clearly articulated and defended them or thesis.
Information Management	Understand and use basic research techniques	ENGL 100 ENGL 200	Students will write a well-reasoned,-organized, and-supported research essay that demonstrates the ability to synthesize appropriate information from a variety of sources.
Information Management	Locate, evaluate and synthesize	ENGL 100 ENGL 200	Students will write a well-reasoned,-organized, and-supported research essay that demonstrates and documents use of evidentiary materials from a variety of sources.

COMPETENCY	OUTCOME	COURSE(S)	MEASURE
Information Management	Perform the basic operations of personal computer use	CITA 110-Microcomputer Applications	By distinct examinations student will demonstrate: A basic understanding of computer systems and how they can be applied to solve problems; computer terminology and techniques; A working knowledge of the Windows operating system; and of applications software that can be used as a tool in other classes

Standards in Critical Thinking: Research Paper

Standard	**Develop well reasoned arguments**	**Identify, analyze and evaluate arguments as they occur in their own or others' work.**
Exceeding:	Theme or thesis presented and developed in a distinctive original style. Arguments and opinions are analyzed and evaluated by the student and presented in a sophisticated manner.	Student articulates a detailed mastery and understanding of the topic, and of arguments and evidence pertaining to specific issues being addressed.
Meeting:	Theme or thesis clearly articulated and substantiated. Student presents arguments of others in good context.	Demonstration of an acceptable mastery of the topic and related arguments. Student supports arguments with evidence and some analysis.
Approaching:	Theme or thesis stated. Student presents arguments without analysis or good context.	Demonstration of some mastery of the topic. Work lacks good usage of evidence.
Not meeting:	No theme or thesis stated. Student does not demonstrate engagement with the topic and work lacks analysis	Student does not use evidentiary materials, or does not use evidence well and relies on assertions to make their point.