**ASSESSMENT OF STUDENT LEARNING OUTCOMES**

**IN GENERAL EDUCATION**

**STRENGTHENED CAMPUS-BASED ASSESSMENT**

**COMBINED PLAN1 - 2007**

**State University of New York**

**College of Agriculture and Technology**

**Cobleskill**

**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.**

As can be seen in the document below, we have adopted the language of the SUNY General Education Requirements for all the mandated areas. As a College, we are requiring evidence of competency in seven of the ten required areas for the AA and AS degrees, eight of the ten required areas for the BT degrees and ten of the ten required areas for the BS degrees. The faculty has developed either grading rubrics or objective exams for the knowledge areas and competencies not addressed by the Strengthened Campus-based Assessment mandate. A summary of learning objectives and measurement tools is listed below. Section 3 contains a comprehensive description of measurement details; rubrics are listed in the Appendix.

**A.** **American History Learning Outcomes**

 Students will demonstrate:

* Knowledge of a basic narrative of American history: political, economic, social and cultural, including knowledge of unity and diversity in American society;
* Knowledge will also be demonstrated of the common institutions in American society and how they have affected different groups;
* Understanding of America’s evolving relationship with the rest of the world.

**Measure:** objective exam developed by the Social Sciences Department

**B.** **The Arts Learning Outcomes**

 Students will demonstrate:

* Understanding of at least one principle form of artistic expression and the creative processes inherent therein.

**Measure**: rubricdeveloped by the Humanities Department

**Evidence** may include examinations, graded papers, visual artifacts, special projects, and/or a performance evaluation.

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1. This combined plan incorporates the following documents submitted to SUNY: *Campus Based Assessment Plan* (submitted 2005); *Strengthened Campus-Based Assessment Plan* (submitted 2006); *Modifications to Campus-Based Assessment Plan – Moving from Rubrics to Exams* (submitted 2006); and *Modifications to Campus-Based Assessment Plan – In Response to Assessment Plan review of July 19, 2005* (submitted 2006).

**C.** **Communication Outcomes**

 Students will:

* Produce coherent texts within college level written forms. This includes generating a thesis and supporting it with appropriate detail as well as an understanding of written organization, focus, and grammar.
* 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.

**Measure for oral communication**: rubricdeveloped by the Humanities Department

**Measure for written communication**: rubricdeveloped by SUNY

**Evidence** may include at least one paper with a draft and final revision and an assignment that is the result of research with cited references. (ENGL 101 or an equivalent course is required of all SUNY Cobleskill students and this course does include all these elements.)

**D.** **Foreign Language Outcomes**

 Students will demonstrate:

* Basic proficiency in the understanding and use of a foreign language; and
* Knowledge of the distinctive features of the culture(s) associated with the language they are studying.

**Measure**: objective examdeveloped by the Humanities Department

**E.** **Humanities 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. [This includes art, communications, drama, foreign languages, literature, music, philosophy, and religion – prefixes include: ARTS, COMM, ENGL, GART, HUMS, JOUR, MUSC, and PHIL].

**Measure**: rubricdeveloped by the Humanities Department

**Evidence:** may include graded papers, examinations, visual artifacts, and/or assessment of performances.

**F.** **Mathematics Outcomes -** Written by the Discipline Panel in Mathematics – (09/08/05)

 Students will demonstrate the ability to:

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

**Measure**: rubricdeveloped by SUNY

**G.** **Natural Sciences Outcomes**

 Students will demonstrate:

* 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;
* Application of scientific data, concepts and models in one of the natural sciences.

**Measure**: objective examdeveloped by the Natural Sciences Department

**H.** **Social Sciences Outcomes**

 Students will demonstrate:

* 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
* Knowledge of major concepts, models and issues of at least one discipline in the social sciences.

**Measure**: objective examdeveloped by the Social Sciences Department

**I.** **Western Civilization Outcomes**

 Students will:

* Demonstrate knowledge of the distinctive features of the history, institutions, economy, society, culture, etc., of Western civilization; and
* Relate the development of Western civilization to that of other regions of the world.

**Measure**: objective examdeveloped by the Social Sciences Department

**J.** **World Civilization Outcomes**

 Students will demonstrate:

* Knowledge of either a broad outline of world history, or
* The distinctive features of the history, institutions, economy, society, culture, etc., of one non-Western civilization.

**Measure**: objective examdeveloped by the Social Sciences Department

**K.** **Critical Thinking Outcomes (infused competency)**

 Students will demonstrate:

* Identify, analyze, and evaluate arguments as they occur in their own work or the work of others; and
* Develop well-reasoned arguments.

**Measure**: ACT Critical Thinking test

**L. Information Management Outcomes (infused competency)**

 Students will:

* Perform the basic operations of personal computer use;
* Understand and use basic research techniques; and
* Locate, evaluate, and synthesize information from a variety of sources.

**Measure**: objective examto bedeveloped by the School of Liberal Arts and Sciences

**2. Programmatic activities intended to accomplish the campus’ objectives for student learning in General Education are described.**

We have a process for creating and approving courses through our Curriculum Committee. Liberal Arts and Sciences faculty are very much aware of the guidelines for courses meeting the SUNY General Education requirement and consciously hold to them. The School of Liberal Arts and Sciences is responsible for implementing the assessment plan.

The catalogue has been updated so that each program has statements regarding the necessity for students to meet the appropriate number of SUNY General Education requirements as indicated in Section 1. There is a summary page in the catalogue that lists all of the approved courses and the category that they satisfy. In addition, all of our program progress sheets (used by advisors with students to record progress toward their degree) include a section devoted to SUNY’s general education matrix.

**3. The measures developed to assess student learning are designed to provide credible evidence of the extent to which students have achieved the learning outcomes or skills stated in the objectives.**

Embedded assessment measures are used for all twelve identified categories. Depending on the category, one of the following measures is used to assess the student learning outcomes: locally developed objective exam, locally developed rubric, SUNY contracted nationally referenced exam, and SUNY developed rubric.

Locally developed objective exams are written by appropriate discipline-specific writing teams, generally composed of faculty teaching the courses in the General education category. For all exams, the discipline-specific teams will ensure that the assessment measures map directly to the corresponding SUNY learning outcomes and yield separate sub-scores for each learning outcome. The objective exams are course specific. For each approved course within a category, the SUNY learning outcomes are integrated into the course-specific learning outcomes. Assessment exams are administered within a class session and counted toward student grades. These steps ensure that faculty have the freedom to tailor the SUNY learning outcomes to the specific discipline and that students are invested in the outcomes assessment. For each learning outcome, grade-equivalents are defined for the four standards (Exceeding, Meeting, Approaching, and Not Meeting). These locally developed exams are used for assessment in the following categories:

***American History*** (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting)

***Foreign Language*** (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting)

***Natural Sciences***  (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting)

***Social Sciences*** (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting)

***Western Civilization*** (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting)

***World Cultures*** (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting)

***Information Management*** (standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting). This exam will be a graded activity on Blackboard (or another course management platform should the campus replace Blackboard) linked to a research project most likely associated with ENGL101, Composition I..

Locally developed rubrics were written by appropriate discipline-specific writing teams, generally composed of faculty teaching the courses in the General education category, and all have been approved by the GEAR group. Each rubric directly addresses the SUNY learning outcomes and yields separate sub-scores for each learning outcome. For each learning outcome, grade-equivalents are defined for the four standards (Exceeding, Meeting, Approaching, and Not Meeting). The evidence collected for assessment by rubric is a part of the student’s grade for the respective course, so all assessment is done by the course/section instructor. To ensure inter-rater reliability, all instructors involved in the assessment will participate in a norming session prior to assessing the student evidence. All of the courses in the categories assessed by rubric are taught by Humanities faculty and they are familiar with norming sessions. They will conduct them in the same fashion as they have done in the past for grading college writing placement exams. This consists of a discussion of the rubric and then evaluation of select pieces of evidence by all participants. Variations in assessment scores are addressed by the group before the instructors assess the evidence collected from their course. As a follow-up activity to ensure that inter-rater reliability has been maintained, 20% of the evidence collected in each course/section will be rated by a second member of the writing assessment team. The score from the initial assessment will not be available to the second rater prior to this activity. For any course section that has unacceptable differences between the primary and follow-up assessment scores, the sub-sample will rated by a third member of the writing assessment team to determine the source of the variation. If the problem is with the original assessment, another norming session will be conducted and the assessment of all evidence for that section will be repeated. These locally developed rubrics are used for assessment in the following categories:

***The Arts***: The arts rubric was revised in 2006 in response to GEAR criticism (7/19/2005). It yields a single score for the one student learning outcome. The evidence may include examinations, graded papers, visual artifacts, special projects, and/or a performance evaluation. The rubric is listed in the Appendix. (Standards are: 5-6 Exceeding, 3-4 Meeting, 2-3 Approaching, 0-1 Not Meeting)

***Humanities***: The rubric yields a single score for the one student learning outcome. The evidence may include graded papers, examinations, visual artifacts, and/or assessment of performances. The rubric is listed in the Appendix. (Standards are: 3 Exceeding, 2 Meeting, 1 Approaching, 0 Not Meeting)

***Oral Communication***: The oral communication rubric revised in 2006 in response to GEAR criticism (7/19/2005). It now allows the scorer to distinguish between “delivering” and “evaluating” an oral presentation. The rubric yields a separate score for each of the two student learning outcomes. The rubric is listed in the Appendix. (Standards for delivery are: 8-9 Exceeding, 5-7 Meeting, 2-4 Approaching, 0-1 Not Meeting. Standards for evaluation are based on the difference between the student’s evaluation of a presentation and the instructor’s evaluation of the same presentation).

The ACT Critical Thinking test will be used for our first assessment of ***Critical Thinking***. This measure was approved as part of our Strengthened Campus-Based Assessment plan. Since this is an infused competency, sampling of courses/sections for assessment will be limited to the designated SUNY approved General Education courses in each of the ten knowledge and skills areas that are more likely to be taken by students after their first semester. {Note added 2011: In spring 2011 we will experimentally assess critical thinking in senior level courses for each major. We will assess student projects assigned in these courses with appropriate rubrics consistent with the SUNY critical thinking learning outcomes. Sample student projects and sample rubrics will be provided by the Assessment Committee.}

SUNY developed rubrics and standards will be used to assess ***Mathematics*** and ***Basic Communication [Written]***. These measures were approved as part of our Strengthened Campus-Based Assessment plan. The evidence collected for assessment in these categories will be a part of the student’s grade for the respective courses, so all assessment will be done by the course/section instructor. To ensure inter-rater reliability, all instructors involved in the assessment will be trained by the LAS representative attending the SUNY sponsored workshops on using these rubrics.

The twelve identified categories will be divided evenly so that they rotate over a three-year cycle. The Office of Institutional Research will select the course sections to be assessed for the individual categories in each cycle. They will randomly select enough course sections of the approved courses within a category to ensure that at least 20% of the students in the approved courses are selected (we will request a 35% sample to account for student absences or students dropping the course prior to assessment). In other words, we are using cluster sampling of whole course sections rather than sampling within sections. This selection will occur between the three-week enrollment verification and the mid-point of the semester. Departments will have the option of sampling 100% of the students if they so choose.

The reporting will be done by the School of Liberal Arts and Sciences in accordance with SUNY guidelines.

**4. The plan proposes standards to which student performance relative to the learning outcomes in the objectives can be compared.**

All locally developed exams and rubrics have clearly defined standards. They are described in Section 3 of this report. In addition, all assessment measures map directly to the corresponding SUNY learning outcomes and yield separate sub-scores for each learning outcome. For exams, the standards are: 85-100% Exceeding, 70-84.9% Meeting, 60-69.9% Approaching, 0-59.9% Not Meeting. For rubrics, the standards vary according to the construction of the rubric. For the ACT exam and the SUNY developed rubrics, the standards are defined by the teams constructing the measures.

**5. The anticipated results of the assessment are able to affirm the degree to which the learning objectives have been achieved and thus make it possible to identify areas that need to be addressed in order to improve learning.**

In creating the locally developed exams and rubrics, departments discussed and agreed upon goals and objectives and how to measure their achievement. We believe that the process of developing these measures was beneficial because the enhanced faculty interaction has begun to provide a level of consistency in approach to the subject matter. An additional positive outcome was an expanded awareness of the variety of instructional formats used by colleagues. This has lead to expanded curriculum development.

To enhance student motivation, subject area rubrics are posted to a Blackboard course to provide student access to the assessment criteria. Faculty are also encouraged to include the outcomes and/or rubrics in their course outlines. This is expected to increase student achievement since they will know the assessment criteria as they are working on an assignment or special project. (The rubrics may be found in the Appendix). Embedded assessment will address our previous concern about students taking assessment seriously. Since the grades will be part of the total course grade, all students will be motivated to do their best work on all assignments and exams.

**6. Mechanisms for assessing the campus academic environment are described.**

The campus will use the National Survey of Student Engagement (NSSE) to assess the campus academic environment. The Office of Institutional Research will be responsible for selecting course sections for sampling. The sampling protocol will be the same as used for administering the Student Opinion Survey (SOS) in spring 2006. We anticipate using the NSSE in spring 2008. The Office of Institutional Research will be responsible for looking for correlations between the SOS results, the NSSE results and the academic assessment results. The findings will be addressed by the College Academic Council which is chaired by the Vice-president for Academic Affairs and includes all deans, department chairs, and select Governance committee chairs.

**7. The assessment plan has been reviewed and approved through the appropriate curriculum and faculty governance structures.**

The primary group responsible for developing this Strengthened Campus-Based Assessment Plan is the Campus General Education Assessment Group. This group consists of the dean of the School of Liberal Arts and Sciences, the chair of the Humanities Department, the chair of the Natural Sciences Department, the chair of the Mathematics Department, the chair of the Social Sciences Department, and the General Education Assessment Coordinator (appointed by the Provost of the college). These individuals are responsible for all of the SUNY-approved General Education courses on campus. All recommendations for changes to the plan are discussed and voted on at the department level and then brought to the Campus General Education Assessment Group for further discussion and final recommendation. The final recommendation of this group is sent to the Faculty Governance Executive Committee and the Vice-president for Academic Affairs for review and eventual endorsement.

**8. The plan adheres to the timetable established by the GEAR Group and agreed to by the University Provost.**

Under our initial plan we were using student portfolios and we submitted our initial data in Summer of 2003. Since then we have totally revised our assessment plan and now use a combination of exams and rubrics. Our first report using the new assessment plan was submitted in June 2006. The following table defines our three year assessment cycle. After Spring 2008 the cycle repeats.

|  |  |
| --- | --- |
| **Year** | **SUNY General Education Requirement** |
| Spring 2006 | American History, Foreign Language, Natural Sciences and Social Sciences |
| Spring 2007 | Arts, Humanities, Mathematics and World Cultures |
| Spring 2008 | Critical Thinking, Communication (Oral and Written), Information Technology and Western Civilization |
| Spring 2009 | American History, Foreign Language, Natural Sciences and Social Sciences |
| Spring 2010 | Arts, Humanities, Mathematics and World Cultures |
| Spring 2010 | Closing the Loop Report due |
| Spring 2011 | Critical Thinking, Communication (Oral and Written), Information Technology and Western Civilization |

**9. The assessment process includes provisions for evaluating the assessment process itself and disseminating assessment results to the appropriate campus community.**

Departments are in charge of assessing the appropriate competencies, so they will have the results of the assessment and the recommendations of those who “graded” the areas assigned each year. Departments will also assess the assessment by monitoring changes in student success and satisfaction in our assessment tools. The results of the testing will be monitored by the department assessment teams in the Liberal Arts and Sciences and by the Campus General Education Assessment Group. Ultimately department assessment teams are charged with handing in not only the data garnered from the assessment but also recommendations for improvement. The recommendations for improvement will thus be shared with the faculty by their department colleagues. These are the people best qualified to make these recommendations for improvement. Required reports will be prepared by the Campus General Education Assessment Group and sent to the SUNY Provost’s Office.

As a means to further validate the report, the Executive Committee of Faculty Governance will review the reports and will assist in disseminating the information to the entire campus community and solicit suggestions for improvement. The campus has also identified assessment as a critical item in our strategic plan.

*Combined Bampus-Based Assessment Plan for Cobleskill 1-25-2007*

**Appendix**

**Locally developed rubrics for:** page

**Humanities** 11

**The Arts** 12

**Oral Communication** 13

**SUNY developed rubrics for:**

**Written Communication** 14

**Mathematics** 17

**Humanities Rubric**

**This criterion is relevant to an extended piece of work that may include a number of research papers/projects that may also use a variety of media and technologies.**

|  |  |  |
| --- | --- | --- |
|  | **Integration** | **Discipline** |
|  |  |  |
| **3 - Exceeding** | * Successfully integrates interdisciplinary skills and knowledge.
* Demonstrates a high degree of intellectual acuity, imagination, and sensitivity.
* Clearly demonstrates an awareness of inter-relationships among self, the discipline, society, and culture.
 | * Clearly and reflectively applies appropriate argumentation and methodology of the discipline.
* Demonstrates highly innovative interpretations, perspectives, or applications of course content.
 |
| **2 - Meeting** | * Partially integrates interdisciplinary skills and knowledge.
* Demonstrates intellectual acuity, imagination, and sensitivity.
* Demonstrates some awareness of inter-relationships among self, the discipline, society, and culture.
 | * Applies appropriate argumentation and methodology of the discipline.
* Demonstrates coherent interpretations, perspectives, or applications of course content.
 |
| **1 - Approaching** | * Attempts to integrate interdisciplinary skills and knowledge.
* Lacks depth of intellectual acuity, imagination, and sensitivity.
* Demonstrates little awareness of inter-relationships among self, the discipline, society, and culture.
 | * Attempts appropriate argumentation and methodology of the discipline.
* Offers minimal interpretations, perspectives, or applications of course content.
 |
| **0 – Not** **Meeting** | * Does not yet integrate interdisciplinary skills and knowledge.
* Does not yet demonstrate intellectual acuity, imagination, and sensitivity.
* Does not yet demonstrate awareness of inter-relationships among self, the discipline, society, and culture.
 | * Does not incorporate appropriate argumentation and methodology of the discipline.
* Fails to interpret or apply course content.
 |

**Arts Rubric**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Score** | **3 = Exceeding** | **2 = Meeting** | **1 = Approaching** | **0 = Not Meeting** |
| **Proficiency in the formal elements of one or more forms of Art** |  | The student demonstrates an understanding of the principles and elements used in the art form under study and demonstrates sensitivity to and creativity with the medium chosen.The work produced is of high quality and is presented in a professional manner. | The student demonstrates an understanding of the principles and elements used in the art form under study and demonstrates sensitivity to and creativity with the medium chosen.The work produced is of medium quality and is presented in a somewhat professional manner. | The student demonstrates an understanding of the principles and elements used in the art form under study and demonstrates sensitivity to and creativity with the medium chosen.The work produced reflects a developing quality and is presented in an acceptable manner. | The student demonstrates a sporadic understanding of the principles and elements used in the art form under study but has difficulty demonstrating sensitivity to and creativity with the medium chosen.The work produced is of sub-standard quality and is presented in a non-professional manner. |
| **Comprehension of principles of artistic design and/or musical composition** |  | The student demonstratesan exemplary ability to analyze and interpret the art form under study.The student demonstrates an excellent understanding of this art form at a high level. | The student demonstratesproficient ability to analyze and interpret the art form under study.The student demonstrates a good understanding of this art form at a high level. | The student demonstratesa developing ability to analyze and interpret the art form under study.The student demonstrates an understanding of this art form at a beginning level. | The student demonstratesdeficiencies in his/her ability to analyze and interpret the art form under study.The student demonstrates an insufficient understanding of this art form at any level. |
| **Total** |  | **5-6 = Exceeding** | **3-4 = Meeting** | **2-3 = Approaching** | **0-1 = Not Meeting** |

Rev 2/3/2006

**Communication (Oral)** **Name of Student Presenting:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Name of Evaluator:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Develop proficiency in oral discourse.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Points** | **3 Exceeding** | **2 Meeting** | **1 Approaching** | **0 Not Meeting** |
| **Organization** | The speaker demonstrates a clear purpose.The ideas are easy to follow.Individual points are well developed. | The speaker demonstrates a reasonably clear purpose.The ideas are somewhat easy to follow.Individual points are adequately developed. | The speaker’s purpose lacks clarity.The ideas are sometimes difficult to follow. Individual points sometimes lack development. | The speaker’s purpose is unclear.The ideas are difficult to follow.Individual points frequently lack development. |
| **Expression** | The speaker uses language that is consistently clear and appropriate.The speaker communicates confidently. | The speaker uses language that is frequently clear and appropriate.The speaker generally communicates with confidence. | The speaker uses language that is occasionally unclear or inappropriate.The speaker at times communicates confidently. | The speaker uses language that is frequently unclear or inappropriate.The speaker does not communicate confidently. |
| **Presentation** | The speaker is very engaging.The speaker’s delivery is fluent. The speaker consistently uses verbal and non-verbal elements to enhance the presentation. | The speaker is moderately engaging.The speaker’s delivery is reasonably fluent.The speaker frequently uses verbal and non-verbal elements to enhance the presentation. | The speaker is somewhat engaging.The speaker’s delivery is occasionally halting.The speaker only occasionally uses verbal and non-verbal elements to enhance the presentation. | The speaker is not engaging.The speaker’s delivery is halting.The speaker uses few and/or inappropriate verbal and non-verbal elements to enhance the presentation. |
| **Total** |  | 8 – 9 Exceeding |
|  | 5 – 7 Meeting |
|  | 2 – 4 Approaching |
|  | 0 – 1 Not Meeting |

**Evaluate an oral presentation.**

|  |  |  |
| --- | --- | --- |
| **Instructor’s****score** |  | 0 or 1 point from instructor’s score Exceeding |
|  | 2 points from instructor’s score Meeting |
|  | 3 or 4 points from instructor’s score Approaching |
|  | 5 or more points from instructor’s score Not Meeting |

Rev 3/22/2006

**Communication (written)**

**Report of the Writing-Discipline Committee**

We have designed these rubrics so that they may be used to assess individual papers as well as portfolios of collected papers. Which to assess is the choice of each campus. In theory, one paper is all that would need to be assessed. That paper would, of course, need to be a paper that makes an argument and is accompanied by at least one earlier draft. A portfolio of papers of a variety of genres could also be assessed as long as that portfolio contained at least one draft of one of the papers in the portfolio.

In this document we have chosen not to include exact grids for each of the outcomes, but have provided instead a graduated series of rubrics for each. Campuses that elect to use this report as a guide have the freedom to design their own grids within the parameters we have laid out. The Committee is well aware that there is more than one satisfactory method for doing so.

**Best Practices1**

The following is based on the assessment statements of both the SUNY Council on Writing and the Conference on College Composition and Communication (CCCC) as well as on the WPA (Writing Program Administrators) Outcomes Statement for First-Year Composition. The later two organizations are nationwide. We base these best practices on the concluding paragraph of the CCCC’s Assessment statement:

Writing assessment that alienates students from writing is counterproductive, and writing assessment that fails to take an accurate and valid measure of their writing even more so. But writing assessment that encourages students to improve their facility with the written word, to appreciate their power with that word and the responsibilities that accompany such power, and that salutes students’ achievements as well as guides them, should serve as a crucially important educational force.

1. Student writing to be assessed should grow out of classroom assignments.

2. Faculty within the institution should play key roles in the design of writing assessments and in the actual evaluation of written products.

3. The rubrics and standards of evaluation should be known to students and should be consistent with the evaluation standards within their classrooms.

4. For high-stakes assessment such as this, each student’s writing should be evaluated by two instructors other than his/her own. We recognize, however, that with carefully designed rubrics and adequate norming sessions, one outside reader may be sufficient.

5. Regularly scheduled norming sessions at which standards and rubrics are discussed fully and applied to sample pieces of student writing are proven venues for increasing the reliability of assessments.

5. Faculty who attend norming sessions and then do the assessments should be paid a pre-established rate for both of these activities unless such activities are a part of their regular job descriptions.

6. Neither student names nor instructor names nor evaluative comments nor grades nor any indication of a particular section should appear on written pieces that are to be evaluated.

7. Ideally students should always be judged on more than one piece of writing.

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1 It should be noted that the seven principles listed in this section are “best practices,” but not necessarily required under GEAR guidelines. Campuses with questions about this issue should refer to the GEAR guidelines, GEAR “Tips,” and GEAR FAQ’s found on the GEAR Web site, at www.cortland.edu/gear.

In summary, to quote from the CCCC Position Statement on Writing Assessment:

Assessments of written literacy should be designed and evaluated by well-informed current or future teachers of the students being assessed, for purposes clearly understood by all the participants; should elicit from student writers a variety of pieces, preferably over a period of time; should encourage and reinforce good teaching practices; and should be solidly grounded in the latest research on language learning.

**Basic Communication Outcomes (written)**

• **Students will demonstrate their abilities to produce coherent texts within common college level forms**

**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. and paragraph transitions are sound, but the sequence of ideas may occasionally be awkward.

**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.

• **Students will demonstrate the ability to revise and improve such 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 ot structure. Either changes do not improve these features or are focused almost solely on mechanics.

**Mathematics Rubric**

**Standards and Rubrics for Assessing General Education in Mathematics**

**Written by the Discipline Panel in Mathematics – (09/08/05)**

**Learning Outcome #1: Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics.**

**Rubric:**

|  |  |
| --- | --- |
| Level |  |
| Completely Correct(CC) | • 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), |
| Generally Correct(GC) | • 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. |
| Partially Correct(PC) | • 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. |
| Incorrect Solution(IC) | • 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.**

**Rubric:**

|  |  |
| --- | --- |
| Level |  |
| Completely Correct(CC) | • 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. |
| Generally Correct(GC) | • 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. |
| Partially Correct(PC) | • 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.  |
| Incorrect Solution(IC) | • The student cannot represent the mathematical information in the representation(s) required.• The student completely misinterprets and/or misrepresents the information.• T he 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.**

**Rubric:**

|  |  |
| --- | --- |
| Level |  |
| Completely Correct(CC) | • 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. |
| Generally Correct(GC) | • 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).  |
| Partially Correct(PC) | • The student demonstrates only a slight understanding of the problem. The student has difficulty identifying the specific arithmetic, algebraic, geometric or statistical method(s) needed to 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).  |
| Incorrect Solution(IC) | • 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**

**Rubric:**

|  |  |
| --- | --- |
| Level |  |
| Completely Correct(CC) | • 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.  |
| Generally Correct(GC) | • 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.  |
| Partially Correct(PC) | • 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.  |
| Incorrect Solution(IC) | • 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.**

**Rubric:**

|  |  |
| --- | --- |
| Level |  |
| Completely Correct(CC) | • 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.  |
| Generally Correct(GC) | • 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  |
| Partially Correct(PC) | • 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).  |
| Incorrect Solution(IC) | • 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.  |