John Jay College of Criminal Justice

Assessment Plan for General Education

Drafted: May 19, 2015
Introduction

In the summer of 2012, the General Education Assessment Committee released a comprehensive report on general education outcomes across the curriculum. This pilot study was designed to accomplish two purposes. First, it would tell us about student achievement in general education under the existing program, which could be used as a baseline for future assessments of the incoming, Pathways curriculum. Second, the pilot would enable us to make concrete recommendations for both general education curriculum and pedagogy and for ways to design a long-term comprehensive plan for general education assessment under the incoming general education program. The assessment plan proposed herein is grounded in the findings of the pilot study and shaped by the learning outcomes in the new general education curriculum.

The pilot study assessed student learning at the capstone level in six of the seven Middle States-recommended areas of general education competence: 1) written communication, 2) oral communication, 3) scientific reasoning, 4) critical analysis and reasoning, 5) technological competence, and 6) information literacy. Quantitative reasoning was assessed through the learning outcomes in mathematic courses (College Algebra to Calculus). To get a well-rounded snapshot, we conducted three types of assessment: Indirect, based on extant data from institutional surveys, including the National Survey of Student Engagement (2010), the Faculty Survey of Student Engagement (2008-09), the 2011 CUNY Student Experience Survey, and the 2011 John Jay survey of graduates; quasi-direct, which drew data from capstone assessment reports from eleven majors; and direct, in which the members of the Committee applied modified Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics from the Association of American Colleges and Universities (AAC&U) to a random sample of capstone papers from 13 majors. The VALUE rubrics were selected because they provide a reliable, national standard against which to measure our students’ learning.

The pilot study found that John Jay students were functioning well below national norms across all six areas of competence studied. It also revealed that there appeared to be little consensus among the faculty on which general education outcomes are most important and how to set appropriate expectations for them. The report recommended that the John Jay faculty work collaboratively to develop common rubrics (perhaps based on the VALUE models) for major general education outcomes as outlined in the new general education curriculum and to create a master plan for assessing those common outcomes on a five-year rotating schedule. The current assessment plan lays out the means by which the College can achieve those goals.

The New General Education Curriculum

Beginning Fall 2013, a new general education plan took effect at John Jay. Its 42 credits are derived from three sets of requirements. The first 30 credits (parts one and two) are mandated across the university; the remaining 12 credits comprise the third part, the College Option. The 30-credit CUNY Pathways curriculum consists of a 12-credit Required Core (including 6 credits in English Composition, 3 in Mathematical and Quantitative Reasoning, and 3 in Life and Physical Sciences), and an 18-credit Flexible Core consisting of five multi-disciplinary content areas. Students take one course in each of the five areas and a sixth from the area of their choice.
All courses in the Flexible Core share three common learning outcomes that address critical thinking, communication, and information literacy.

In accordance with CUNY guidelines, John Jay requires an additional 12-credit College Option to round out a total of 42 credits of general education requirements. The College Option, designed by John Jay faculty, maintains key components of the general education curriculum adopted at the College prior to the Pathways mandate. These include a 6-credit Justice Core, 3 credits in Learning from the Past, and 3 credits in Communication. The Justice Core requires one course at the 100 level and one at the 300 level. The 300-level course is selected from two options, either a U.S. or globally focused course.

**Learning Goals of CUNY Common Core Structure (Pathways, 30 credits)**

Note that a more detailed mapping of the learning outcomes for Part A of the Required Core to the common outcomes of the Flexible Core is presented in Appendix A.

**I. Learning Goals of the Required Core (12 credits)**

**A. English Composition**: Six credits

A course in this area must meet all of the following learning outcomes. A student will:

1. Read and listen critically and analytically, including identifying an argument’s major assumptions and assertions and evaluating its supporting evidence.
2. Write clearly and coherently in varied, academic formats (such as formal essays, research papers, and reports) using standard English and appropriate technology to critique and improve one’s own and others’ texts.
3. Demonstrate research skills using appropriate technology, including gathering, evaluating, and synthesizing primary and secondary sources.
4. Support a thesis with well-reasoned arguments, and communicate persuasively across a variety of contexts, purposes, audiences, and media.
5. Formulate original ideas and relate them to the ideas of others by employing the conventions of ethical attribution and citation.

**B. Mathematical and Quantitative Reasoning**: Three credits

A course in this area must meet all of the following learning outcomes. A student will:

1. Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.
2. Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.
3. Represent quantitative problems expressed in natural language in a suitable mathematical format.
4. Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.
5. Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.
6. Apply mathematical methods to problems in other fields of study.
C. Life and Physical Sciences: Three credits

A course in this area must meet all of the following learning outcomes. A student will:
1. Identify and apply the fundamental concepts and methods of a life or physical science.
2. Apply the scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis, and data presentation.
3. Use the tools of a scientific discipline to carry out collaborative laboratory investigations.
4. Gather, analyze, and interpret data and present it in an effective written laboratory or fieldwork report.
5. Identify and apply research ethics and unbiased assessment in gathering and reporting scientific data.

II. Learning Goals of the Flexible Core (18 credits)

Six three-credit liberal arts and sciences courses, with at least one course from each of the following five areas and no more than two courses in any discipline or interdisciplinary field. All Flexible Core courses must meet the following three learning outcomes. A student will:
1. Gather, interpret, and assess information from a variety of sources and points of view.
2. Evaluate evidence and arguments critically or analytically.
3. Produce well-reasoned written or oral arguments using evidence to support conclusions.

A. World Cultures and Global Issues
A course in this area must meet at least three of the following additional learning outcomes. A student will:
1. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring world cultures or global issues, including, but not limited to, anthropology, communications, cultural studies, economics, ethnic studies, foreign languages (building upon previous language acquisition), geography, history, political science, sociology, and world literature.
2. Analyze culture, globalization, or global cultural diversity, and describe an event or process from more than one point of view.
3. Analyze the historical development of one or more non-U.S. societies.
4. Analyze the significance of one or more major movements that have shaped the world’s societies.
5. Analyze and discuss the role that race, ethnicity, class, gender, language, sexual orientation, belief, or other forms of social differentiation play in world cultures or societies.
6. Speak, read, and write a language other than English, and use that language to respond to cultures other than one’s own.
B. U.S. Experience in its Diversity
A course in this area must meet at least three of the following additional learning outcomes. A student will:
1. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the U.S. experience in its diversity, including, but not limited to, anthropology, communications, cultural studies, economics, history, political science, psychology, public affairs, sociology, and U.S. literature.
2. Analyze and explain one or more major themes of U.S. history from more than one informed perspective.
3. Evaluate how indigenous populations, slavery, or immigration have shaped the development of the United States.
4. Explain and evaluate the role of the United States in international relations.
5. Identify and differentiate among the legislative, judicial, and executive branches of government and analyze their influence on the development of U.S. democracy.
6. Analyze and discuss common institutions or patterns of life in contemporary U.S. society and how they influence, or are influenced by, race, ethnicity, class, gender, sexual orientation, belief, or other forms of social differentiation.

C. Creative Expression
A course in this area must meet at least three of the following additional learning outcomes. A student will:
1. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring creative expression, including, but not limited to, arts, communications, creative writing, media arts, music, and theater.
2. Analyze how arts from diverse cultures of the past serve as a foundation for those of the present, and describe the significance of works of art in the societies that created them.
3. Articulate how meaning is created in the arts or communications and how experience is interpreted and conveyed.
4. Demonstrate knowledge of the skills involved in the creative process.
5. Use appropriate technologies to conduct research and to communicate.

D. Individual and Society
A course in this area must meet at least three of the following additional learning outcomes. A student will:
1. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the relationship between the individual and society, including, but not limited to, anthropology, communications, cultural studies, history, journalism, philosophy, political science, psychology, public affairs, religion, and sociology.
2. Examine how an individual’s place in society affects experiences, values, or choices.
3. Articulate and assess ethical views and their underlying premises.
4. Articulate ethical uses of data and other information resources to respond to problems and questions.
5. Identify and engage with local, national, or global trends or ideologies, and analyze their impact on individual or collective decision-making.
E. Scientific World
A course in this area must meet at least three of the following additional learning outcomes. A student will:
1. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies.
2. Demonstrate how tools of science, mathematics, technology, or formal analysis can be used to analyze problems and develop solutions.
3. Articulate and evaluate the empirical evidence supporting a scientific or formal theory.
4. Articulate and evaluate the impact of technologies and scientific discoveries on the contemporary world, such as issues of personal privacy, security, or ethical responsibilities.
5. Understand the scientific principles underlying matters of policy or public concern in which science plays a role.

III. Learning Goals of the College Option (12 credits)

A. Justice Core 100 Level (Justice and the Individual)
A course in this area must meet the following learning outcomes. A student will:
1. Describe one’s own relationship to significant issues of justice.
2. Identify problems and propose solutions through evidence-based inquiry.
3. Assess the effectiveness of one’s own role in collaborations with people of diverse backgrounds.
4. Demonstrate effective planning and reflection to accomplish course outcomes.
5. Engage in co-curricular activities (i.e., clubs, student activities, lectures, tutoring, academic advisement, community service) to develop academic goals and personal growth.

B. Justice Core 300 Level (Struggle for Justice and Equity in U.S.)
A course in this area must meet the following learning outcomes. A student will:
1. Develop an understanding of the social, political, economic, and cultural contexts of the struggles for justice in the U.S.
2. Analyze how struggles for justice have shaped U.S. society and culture.
3. Differentiate multiple perspectives on the same subject.

C. Justice Core 300 Level (Justice in Global Perspective)
A course in this area must meet the following learning outcomes. A student will:
1. Develop an understanding of the social, political, economic, and cultural contexts of the struggles for justice throughout the world.
2. Analyze how struggles for justice have shaped societies and cultures throughout the world.
3. Differentiate multiple perspectives on the same subject.
D. Learning from the Past
A course in this area must meet the following learning outcomes. A student will:
1. Demonstrate knowledge of formative events, ideas, or works in the arts, humanities, mathematics, natural sciences or social sciences.
2. Analyze the significance of major developments in U.S. and World History.
3. Differentiate multiple perspectives on the same subject.

E. Communications
A course in this area must meet the following learning outcomes. A student will:
1. Express oneself clearly in one or more forms of communication, such as written, oral, visual, or aesthetic.
3. Work collaboratively.
4. Listen, observe, and adapt messages in a variety of situations, cultural contexts, and target audiences in a diverse society.

Reporting

Assessment reports will be submitted every July 1 detailing the activities and results of the previous fall and spring semesters with two exceptions. The report submitted on July 1, 2015, will include the activities and results of the Spring 2015 semester. Two reports will be submitted on July 1, 2020. The first, “End of Cycle” report will summarize activities and results for the entire cycle (Spring 2015 through Fall 2019). The second report will include the activities and results of the Spring 2020 semester, the first semester of the next five-year cycle.

Assessment Procedures

Every semester, the faculty leader of general education assessment will contact all of the faculty teaching courses in the areas of the General Education curriculum being assessed that semester. Broad samples of student work will be requested for the purposes of direct assessment. These samples, once collected, will be anonymized with respect to the student, the faculty member, and the course number. Samples of student work will be scored using the appropriate rubrics by the faculty leader, members of the General Education Subcommittee of UCASC, and/or other interested faculty. Rubrics that have already been developed are presented in Appendix B. This plan will be amended as additional rubrics are developed consistent with the assessment schedule presented below.

In addition to requesting student work performed during the current semester, the faculty leader will investigate the availability of student work from previous semesters. If, for example, the English Department has a large amount of student work from previous semesters of ENG 101, that work could be used for direct assessment in the Spring 2015 semester. The same principle applies to work collected this semester (and beyond); student work from Flexible Core courses collected this semester will be used for direct assessment in later semesters as it pertains to the Flexible Core. Preference is given to student work no more than two academic years old.
In general, samples of student work will be drawn to assess the learning outcomes identified in a given semester and to allow inferences to be made for various, relevant subsets of the population. Specifically, it will useful, as appropriate, to analyze:

- The full sample of work, to gain an overall picture of performance on a given learning outcome
- Work by course level, to measure the development of student skills and abilities as they progress through different levels of the curriculum
- Work from different parts of the general education curriculum, to measure the relative effectiveness of the Required Core, Flexible Core, and College Option in the development of these skills and abilities.

Indirect assessment will be conducted using various survey instruments, such as the Student Evaluation of the Major and the National Survey of Student Engagement, complemented by instruments that are yet to be developed and other analyses as appropriate. Such analyses may include the following data: student responses to various surveys, course offerings, course grades, and other data available on CUNYFirst. Indirect assessment will address both the learning outcomes/areas of the curriculum being directly assessed that semester as well as the general education curriculum as a whole. Each annual report will describe in detail the instruments and analyses used for indirect assessment in that year and report those results.

**A Note on Assessing Skills**

Different sets of skills (e.g., writing skills) exist as learning outcomes in certain parts of the General Education curriculum. In addition to those parts where those skills are explicitly addressed, these skills comprise an important aspect of general education. The development of these skills, therefore, will be assessed across the curriculum and not only in the parts of the curriculum where they are listed.

These skills include writing, critical thinking, information literacy, research, scientific inquiry, and communication and are referred to collective in the schedule that follows as “Common Skills.” In addition to the courses existing in the curricular areas explicitly listing these skills as goals, the development of these skills will be assessed using student work from all courses in the Flexible Core, all 300-level Justice Core courses, and 400-level capstone courses from a variety of programs. In this way, the College can examine the development and demonstration of these skills across the curriculum and at various levels.
General Education Assessment Schedule

The General Education curriculum will be assessed using a five-year/ten-semester cycle. An end of cycle report will be written in the eleventh semester, coinciding with the first semester of the next five-year cycle.

<table>
<thead>
<tr>
<th>#</th>
<th>Semester</th>
<th>Learning Goals Assessed</th>
<th>Other Activities/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spring 2015</td>
<td>Writing, critical thinking, information literacy, and research related goals&lt;br&gt;<strong>Required Core:</strong> A. English Comp.&lt;br&gt;<strong>Flexible Core:</strong> Common Outcomes 1-3 College Option 300-level&lt;sup&gt;1&lt;/sup&gt;</td>
<td>For the first round of assessment, the Flex Core and College Option will be assessed on these goals in Fall 2015</td>
</tr>
<tr>
<td>2</td>
<td>Fall 2015</td>
<td>Quantitative literacy&lt;br&gt;<strong>Required Core:</strong> B. Math &amp; Quant. Reas.&lt;br&gt;<strong>Flexible Core:</strong> All Courses College Option 300-level</td>
<td>Develop rubrics for Spring 2016</td>
</tr>
<tr>
<td>3</td>
<td>Spring 2016</td>
<td>Science related goals&lt;br&gt;<strong>Required Core:</strong> C. Life &amp; Physical Sci.&lt;br&gt;<strong>Flexible Core:</strong> E. Scientific World&lt;br&gt;<strong>Flexible Core:</strong> All Other Courses College Option 300-level</td>
<td>Develop rubrics for Fall 2016</td>
</tr>
<tr>
<td>4</td>
<td>Fall 2016</td>
<td>Communication Skills &amp; Justice Core Content&lt;br&gt;<strong>Justice Core:</strong> All Courses&lt;br&gt;<strong>College Option:</strong> E. Communications&lt;br&gt;<strong>Flexible Core:</strong> C. Creative Expression&lt;br&gt;<strong>Flexible Core:</strong> All Other Courses College Option 300-level</td>
<td>Develop rubrics for Spring 2017</td>
</tr>
<tr>
<td>5</td>
<td>Spring 2017</td>
<td>Content related goals&lt;br&gt;<strong>Flexible Core:</strong> A. World Cultures&lt;br&gt;<strong>Flexible Core:</strong> B. US Experience&lt;br&gt;<strong>Flexible Core:</strong> D. Individual &amp; Society&lt;br&gt;<strong>College Option:</strong> D. Learning from the Past</td>
<td>*400-level Capstone Courses&lt;br&gt;<strong>All Common Skills</strong></td>
</tr>
<tr>
<td>6</td>
<td>Fall 2017</td>
<td>Repeat 1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Spring 2018</td>
<td>Repeat 2</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Fall 2018</td>
<td>Repeat 3</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Spring 2019</td>
<td>Repeat 4</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Fall 2019</td>
<td>Repeat 5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Spring 2020</td>
<td><strong>End of cycle report</strong>&lt;br&gt;<strong>Repeat 1, beginning a new cycle</strong></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> The College Option does not explicitly list general writing, critical thinking, or research skills as outcomes. These skills are, however, necessary for demonstrating proficiency in the justice related outcomes that are listed. Inclusion of the 300-level Justice Core here allows the college to assess these skills at the 300-level in addition to the 100 and 200-levels.

<sup>2</sup> Flexible Core and 300-level College Option courses, beyond their stated learning outcomes, will also be assessed on quantitative literacy, science related goals, and communication skills.
Appendix A: Mapping of Learning Outcomes across the Curriculum

While different skills and knowledge are emphasized in different parts of the general education curriculum, several skills are common to some outcomes in different areas of the curriculum. The closest linkages exist among writing, critical thinking, research, and information skills. Learning outcomes emphasizing these skills are presented explicitly in Part A of the Required Core (English Composition) and in the three common outcomes of the Flexible Core.

In assessing these outcomes and the skills they emphasize, we have decided to use common rubrics, adapted from the VALUE rubrics. Table A1 links outcomes for English Composition to outcomes for the Flexible Core, linking both to VALUE rubric items. Naturally, the overlap between different areas of the curriculum is not perfect. In addition to differences in phraseology, we find, for example, that individual outcomes for the Flexible Core link to multiple outcomes for English Composition. There are, however, two important benefits of this approach. As noted earlier, the VALUE rubrics represent a national standard for student performance against which we can compare our students. Second, by mapping disparate outcomes relating to common skills together, and by assessing these outcomes with a common rubric and on a common scale, we can examine how student exhibition of these skills varies at different points in the curriculum.

We will also assess the exhibition of these skills in 300-level Justice Core courses. Outcomes for the Justice Core are not listed in the following table because the Justice Core does not explicitly contain outcomes relating to these skills. Implicitly, however, there is an expectation that students are continuing to develop writing, critical thinking, research, and information literacy skills at this level. We, therefore, apply the same three VALUE rubrics to work from 300-level Justice Core courses.

For those unfamiliar with VALUE rubrics, each rubric presents a number of competencies, or items, relating to each skill or outcome (e.g., written communication). For each competency, descriptions are given for what is expected of students at various levels of coursework including benchmark, milestone 2, milestone 3, and capstone. For simplicity, we assume each level in the VALUE rubric describes demonstration of skills that meets expectations at a corresponding John Jay course level: benchmark equals 100, milestone 2 equals 200, milestone 3 equals 300, and capstone equals 400. Work meeting a benchmark, or 100-level, proficiency, for example, would meet expectations in a 100-level course, but fail to meet expectations in a 200 or 300-level course. This is a decision that we may revisit after initial rounds of assessment using the VALUE rubrics.

We also use the Quantitative Literacy VALUE rubric to assess outcomes for Mathematical and Quantitative Reasoning, Part B of the Required Core. Table A2 maps the outcomes for Part B onto the items of the Quantitative Literacy VALUE rubric. The one outcome for Part B that cannot be assessed using the Mathematics courses in Part B is the last, application of mathematical methods to problems in other fields of study. To assess students on this outcome, we will apply the “Application/Analysis” item of the Quantitative Literacy rubric to student work in Flexible Core courses collected the previous semester. All four VALUE
rubrics that will be used for assessment are presented in Appendix B. As more rubrics are developed to assess other outcomes, they will be presented in Appendix B.

<table>
<thead>
<tr>
<th>English Composition Learning Outcome</th>
<th>Flexible Core Learning Outcome</th>
<th>VALUE Rubric Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Read and listen critically and analytically, including identifying and argument’s major assumptions and assertions and evaluating its supporting evidence.</td>
<td>2. Evaluate evidence and arguments critically or analytically.</td>
<td>CT: Evidence CT: Influence of Context &amp; Assumptions</td>
</tr>
<tr>
<td>2. Write clearly and coherently in varied, academic formats using standard English and appropriate technology to critique and improve one’s own and others’ texts.</td>
<td>3. Produce well-reasoned written or oral arguments using evidence to support conclusions.</td>
<td>WC: Content Development WC: Genre &amp; Disciplinary Conventions WC: Control of Syntax &amp; Mechanics IL: Access Needed Information</td>
</tr>
<tr>
<td>3. Demonstrate research skills using appropriate technology, including gathering, evaluating, and synthesizing primary and secondary sources.</td>
<td>1. Gather, interpret, and assess information from a variety of sources and points of view.</td>
<td>IL: Determine Extent of Info. Needed IL: Use Information Effectively…</td>
</tr>
<tr>
<td>4. Support a thesis with well-reasoned arguments, and communicate persuasively across a variety of contexts, purposes, audiences, and media.</td>
<td>3. Produce well-reasoned written or oral arguments using evidence to support conclusions.</td>
<td>WC: Context &amp; Purpose for Writing CT: Explanation of Issues CT: Student’s Position CT: Conclusions &amp; Related Outcomes</td>
</tr>
<tr>
<td>5. Formulate original ideas and relate them to the ideas of others by employing the conventions of ethical attribution and citation.</td>
<td>1. Gather, interpret, and assess information from a variety of sources and points of view.</td>
<td>WC: Sources and Evidence IL: Access &amp; Use Info. Ethically…</td>
</tr>
</tbody>
</table>

Note: In the VALUE Rubric Items column, “CT” represents the Critical Thinking rubric, “IL” represents the Information Literacy rubric, and “WC” represents the Written Communication rubric. These rubrics, and others, are presented in Appendix B.
<table>
<thead>
<tr>
<th>Mathematical and Quantitative Reasoning Learning Outcomes</th>
<th>Quantitative Literacy VALUE Rubric Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.</td>
<td>➔ Interpretation</td>
</tr>
<tr>
<td>2. Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.</td>
<td>➔ Application/Analysis ➔ Assumptions</td>
</tr>
<tr>
<td>3. Represent quantitative problems expressed in natural language in a suitable mathematical format.</td>
<td>➔ Representation</td>
</tr>
<tr>
<td>4. Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.</td>
<td>➔ Communication</td>
</tr>
<tr>
<td>5. Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.</td>
<td>➔ Calculation</td>
</tr>
<tr>
<td>6. Apply mathematical methods to problems in other fields of study.</td>
<td>➔ Application/Analysis applied to student work from the Flexible Core</td>
</tr>
</tbody>
</table>
Appendix B. Rubrics Used for Direct Assessment
<table>
<thead>
<tr>
<th>Item</th>
<th>400-level</th>
<th>300-level</th>
<th>200-level</th>
<th>100-level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation of issues</strong></td>
<td>Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.</td>
<td>Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.</td>
<td>Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.</td>
<td>Issue/problem to be considered critically is stated without clarification or description.</td>
</tr>
<tr>
<td><strong>Evidence</strong></td>
<td>Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.</td>
<td>Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.</td>
<td>Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.</td>
<td>Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.</td>
</tr>
<tr>
<td><strong>Influence of context and assumptions</strong></td>
<td>Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.</td>
<td>Identifies own and others' assumptions and several relevant contexts when presenting a position.</td>
<td>Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).</td>
<td>Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.</td>
</tr>
<tr>
<td><strong>Student's position</strong></td>
<td>Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).</td>
<td>Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).</td>
<td>Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.</td>
<td>Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.</td>
</tr>
<tr>
<td><strong>Conclusions and related outcomes</strong></td>
<td>Conclusions and related outcomes (consequences and implications) are logical and reflect student’s informed evaluation and ability to place evidence and perspectives discussed in priority order.</td>
<td>Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.</td>
<td>Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.</td>
<td>Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.</td>
</tr>
</tbody>
</table>
## Information Literacy VALUE Rubric

<table>
<thead>
<tr>
<th>Item</th>
<th>400-level</th>
<th>300-level</th>
<th>200-level</th>
<th>100-level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Determine the Extent of Information Needed</strong></td>
<td>Effectively defines the scope of the research question or thesis. Effectively determines key concepts. Types of information (sources) selected directly relate to concepts or answer research question.</td>
<td>Defines the scope of the research question or thesis completely. Can determine key concepts. Types of information (sources) selected relate to concepts or answer research question.</td>
<td>Defines the scope of the research question or thesis incompletely (parts are missing, remains too broad or too narrow, etc.). Can determine key concepts. Types of information (sources) selected partially relate to concepts or answer research question.</td>
<td>Has difficulty defining the scope of the research question or thesis. Has difficulty determining key concepts. Types of information (sources) selected do not relate to concepts or answer research question.</td>
</tr>
<tr>
<td><strong>Access the Needed Information</strong></td>
<td>Accesses information using effective, well-designed search strategies and most appropriate information sources.</td>
<td>Accesses information using variety of search strategies and some relevant information sources. Demonstrates ability to refine search.</td>
<td>Accesses information using simple search strategies, retrieves information from limited and similar sources.</td>
<td>Accesses information randomly, retrieves information that lacks relevance and quality.</td>
</tr>
<tr>
<td><strong>Evaluate Information and its Sources Critically</strong></td>
<td>Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.</td>
<td>Identifies own and others' assumptions and several relevant contexts when presenting a position.</td>
<td>Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).</td>
<td>Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.</td>
</tr>
<tr>
<td><strong>Use Information Effectively to Accomplish a Specific Purpose</strong></td>
<td>Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth</td>
<td>Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.</td>
<td>Communicates and organizes information from sources. The information is not yet synthesized, so the intended purpose is not fully achieved.</td>
<td>Communicates information from sources. The information is fragmented and/or used inappropriately (misquoted, taken out of context, or incorrectly paraphrased, etc.), so the intended purpose is not achieved.</td>
</tr>
<tr>
<td><strong>Access and Use Information Ethically and Legally</strong></td>
<td>Students use correctly all of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</td>
<td>Students use correctly three of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</td>
<td>Students use correctly two of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</td>
<td>Students use correctly one of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</td>
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<td><strong>Context of and Purpose for Writing</strong>&lt;br&gt;Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).</td>
<td>Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.</td>
<td>Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).</td>
<td>Demonstrates awareness of context, audience, purpose, and to the assigned task(s) (e.g., begins to show awareness of audience's perceptions and assumptions).</td>
<td>Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).</td>
</tr>
<tr>
<td><strong>Content Development</strong></td>
<td>Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.</td>
<td>Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.</td>
<td>Uses appropriate and relevant content to develop and explore ideas through most of the work.</td>
<td>Uses appropriate and relevant content to develop simple ideas in some parts of the work.</td>
</tr>
<tr>
<td><strong>Genre and Disciplinary Conventions</strong>&lt;br&gt;Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).</td>
<td>Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s) including organization, content, presentation, formatting, and stylistic choices</td>
<td>Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices</td>
<td>Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation</td>
<td>Attempts to use a consistent system for basic organization and presentation.</td>
</tr>
<tr>
<td><strong>Sources and Evidence</strong></td>
<td>Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.</td>
<td>Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.</td>
<td>Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.</td>
<td>Demonstrates an attempt to use sources to support ideas in the writing.</td>
</tr>
<tr>
<td><strong>Control of Syntax and Mechanics</strong></td>
<td>Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.</td>
<td>Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.</td>
<td>Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.</td>
<td>Uses language that sometimes impedes meaning because of errors in usage.</td>
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## Quantitative Literacy VALUE Rubric

<table>
<thead>
<tr>
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<tr>
<td><strong>Interpretation</strong></td>
<td>Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.</td>
<td>Provides accurate explanations of information presented in mathematical forms. For instance, accurately explains the trend data shown in a graph.</td>
<td>Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. For instance, accurately explains trend data shown in a graph, but may miscalculate the slope of the trend line.</td>
<td>Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. For example, attempts to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.</td>
</tr>
<tr>
<td><strong>Representation</strong></td>
<td>Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)</td>
<td>Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.</td>
<td>Competently converts relevant information into an appropriate and desired mathematical portrayal.</td>
<td>Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.</td>
</tr>
<tr>
<td><strong>Calculation</strong></td>
<td>Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)</td>
<td>Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.</td>
<td>Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.</td>
<td>Calculations are attempted but are both unsuccessful and are not comprehensive.</td>
</tr>
<tr>
<td><strong>Application / Analysis</strong></td>
<td>Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis</td>
<td>Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.</td>
<td>Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.</td>
<td>Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.</td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td>Ability to make and evaluate important assumptions in estimation, modeling, and data analysis</td>
<td>Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.</td>
<td>Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.</td>
<td>Explicitly describes assumptions.</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)</td>
<td>Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.</td>
<td>Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.</td>
<td>Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.</td>
</tr>
</tbody>
</table>