Increasingly national education officials, accreditors, and faculty leaders associate “quality” education with student learning outcomes and continuous quality improvement processes. Academic leaders and accrediting bodies discourage the view that education is a simple matter of a static body of knowledge passed from faculty to students. Instead, they value education practiced as commitment to a set of collectively-practiced ongoing activities: making institutional choices about the most important goals for student learning and defining the learning in terms of desired outcomes, developing a shared faculty commitment to actions such as high impact, active learning strategies and faculty development activities designed to increase student achievement of the desired outcomes, making informed judgments about student achievement, and ensuring continuous improvements in the educational program. Despite the commitment of academic leaders and accreditors to these processes, too few institutions have succeeded in applying a systematic process of educational improvement to an essential component of a liberal education, the general education program. In addition, recent national higher education accountability discussions suggest the commitment to student learning in general education can benefit from models of effective, innovative general education programs.

The Association for General and Liberal Studies is committed to the centrality of quality general education programs in the liberal education of students. The organization invites institutions to apply for the 2011 AGLS Awards for Improving General Education: Effective Program Processes. The awards promote institutional commitment to continuous quality improvement processes, recognize faculty and institutions that practice these quality behaviors, and provide much needed examples of effective improvement processes. The 2011 Awards will recognize institutions committed to systematic improvements generated through the use of learning assessment. The Award will recognize those institutions that use assessment to reconsider learning goals, develop a shared commit to improved learning strategies, and plan to check their improvements. AGLS will recognize up to three institutions that use effective and innovative assessment processes and related strategies to improve learning. Application narratives should focus on the commitment to and assessment of just one learning domain. Judges will identify the best improvement model for each of three different learning domains. The Awards presentations will be made during the 2011 AGLS conference, to be held October 6-8 in Miami, FL. Winners will be asked to present a discussion of their assessment processes in an identified special session and, if possible, provide a poster presentation for display throughout the conference. Winners will receive the following: a plaque recognizing their efforts, listing in the AGLS Newsletter, recognition of the process on the AGLS website, and half-priced registration for the up-coming conference, including a year’s membership in AGLS.
Application Format

To be considered for the award, an applicant on behalf of an institution should complete:

- Section #1: Contact information for individual submitting the application
- Section #2: Institutional endorsement by either the chief executive or academic officer
- Section #3: Application summary (150 words or less)
- Section #4: Responses to four award criteria, limited to two pages per criterion

Examples of Evidence for Award Criteria

Evidence of merit requires answering the questions under each of the criterion listed in the application below. Evidence should focus on specific activities and processes that employ the continuous quality improvement principles discussed in the AGLS publication *Improving Learning in General Education: An AGLS Guide to Assessment and Program Review* and found in the supporting reference materials listed in the Guide. The application should clearly present the creative solutions and leadership methods used to address the issues, concerns, and goals relevant to I1 processes. Supporting material can be summarized as part of the application and narrative, but **limit your explanations to two pages per criterion.** Please feel free to cite any web addresses that readers or AGLS members might use to better understand or see samples of your efforts.

Award Timeline

March—Application materials available on AGLS website
June 15th—Materials must be received by AGLS
June 20th—Materials distributed to review panel
August 1st—Winners notified
October—Winners’ presentations and awards during 2009 AGLS Annual Conference in St. Louis

Suggested Reference Material

*Improving Learning in General Education: An AGLS Guide to Assessment and Learning* can be found at: [www.agls.org](http://www.agls.org). Supporting literature (from regional and specialized accreditors and from AAC&U) is listed in the Guide.

Application Submission

Applications and supporting materials may be submitted as e-mail attachments in Microsoft Word or Adobe Acrobat format, sent to Paul Ranieri at pranieri@bsu.edu. Applications can also be mailed to:

Paul Ranieri  
AGLS Executive Director  
Department of English  
Ball State University  
RB 2109  
Muncie, IN 47306
Section #1: Contact Information of Person Submitting Application

<table>
<thead>
<tr>
<th>Name</th>
<th>Richard Davis/Karen Gentemann</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Associate Provost for Undergraduate Education/Associate Provost for Institutional Effectiveness</td>
</tr>
<tr>
<td>Institution</td>
<td>George Mason University</td>
</tr>
<tr>
<td>Department/Program</td>
<td>Provost Office</td>
</tr>
<tr>
<td>Street Address</td>
<td>4400 University Dr.</td>
</tr>
<tr>
<td>City, State, Zip</td>
<td>Fairfax, VA 22030</td>
</tr>
<tr>
<td>Phone</td>
<td>703-993-8891/703-993-8834</td>
</tr>
<tr>
<td>Fax</td>
<td>703-993-8871</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:rdavi4@gmu.edu">rdavi4@gmu.edu</a>/genteman@gmu.edu</td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
</tbody>
</table>

Section #2: Institutional Endorsement

<table>
<thead>
<tr>
<th>Name</th>
<th>Peter Stearns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Provost</td>
</tr>
<tr>
<td>Institution</td>
<td>George Mason University</td>
</tr>
<tr>
<td>Phone</td>
<td>703-993-8776</td>
</tr>
<tr>
<td>Fax</td>
<td>703-993-8645</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:pstearns@gmu.edu">pstearns@gmu.edu</a></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
</tbody>
</table>

Section #3: Application Summary

Include a summary of the award application. Please begin the narrative with a brief description of your institution and the time frame for the process. Briefly explain your process and why you think it equates with quality. The summary should not exceed 150 words. The text box may be increased in size as necessary.
Since it was founded in 1972, George Mason University has grown into a major educational force and earned a reputation as an innovative, entrepreneurial institution. George Mason has a growing and diverse student population of over 20,000 undergraduate students and 12,000 graduate students studying in 186 degree programs.

George Mason’s general education program has a distinctive Synthesis requirement that expands students' ability to master new content, think critically, and develop life-long learning skills that cross disciplinary boundaries. In 2008, the university adopted a new method for assessing learning outcomes—the faculty course portfolio, which features interdisciplinary collaboration, explicit core learning outcomes for synthesis and critical thinking, alignment of course and general education learning outcomes, a peer review process, constructive feedback to faculty and departments, and, above all, meaningful use of assessment results. To support faculty, a Critical-Thinking-Across-the-Curriculum initiative has been established to support faculty with course re-design, assignment development and improved learning outcomes in synthesis courses.

Section #4: Award Criteria

Criterion 1: Supporting and Defining Learning
Provide a description of how your institution supports and operationally defines learning for one goal or learning domain. What are your learning outcomes for this goal and what is the evidence your institution collects to show that graduates have acquired the general education knowledge, skills, or values expressed by this outcome? Address the following issues:

- How the goal of this learning domain aligns with your mission
- What process your institution used to define, in operational terms, this goal's learning outcome(s)
- Who helped your institution develop this definition and what level of support exists for the goal and outcomes
- How you communicate this definition to faculty, students, and other interested parties
- What collaborative efforts members of your institution are making to achieve these learning outcome(s), including efforts to ensure alignment with multiple faculty, across multiple programs and courses.

Please limit your response to two pages. The following text box may be increased in size as necessary.

The mission of George Mason University includes the following statement: George Mason University will “provide innovative and interdisciplinary undergraduate, graduate, and professional courses of study that enable students to exercise analytical and imaginative thinking and make well-founded ethical decisions.” The vision of Mason’s general education program is stated in Life, Liberty, and the Pursuit of Happiness: A Rationale for General Education at George Mason University. Mason’s general education curriculum is designed as a three-tiered structure of progressively more sophisticated coursework in eleven areas, through which students develop key academic competencies applicable to every discipline, explore multiple disciplinary epistemologies and bodies of knowledge, and acquire the ability to continue learning, adapting, creating and responding to an ever-changing society and career environment.
Synthesis Learning Outcomes

Mason’s general education program has a distinctive Synthesis requirement. The purpose of the synthesis course is to provide students with the opportunity to synthesize the knowledge, skills and values gained from the general education curriculum. Synthesis courses strive to expand students' ability to master new content, think critically, and develop life-long learning skills across the disciplines. While it is not feasible to design courses that cover "all" areas of general education, synthesis courses function as a careful alignment of disciplinary goals with a range of general education learning outcomes.

Synthesis courses are upper-level courses offered by nearly every department. The University General Education Committee, with fourteen faculty representatives from across all undergraduate colleges, has the primary responsibility for developing common learning outcomes. At a series of learning outcomes workshops in 2009, the committee members and assessment professionals held rich discussions on the mission of synthesis courses, its relationship to disciplinary goals, as well as common expectations for student learning and strategies to assess synthesis. Online blogs were also created to involve faculty members teaching synthesis courses, course coordinators, department chairs, associate deans and the provost in the development of common learning outcomes. In fall 2009, the University General Education Committee approved three learning outcomes for synthesis: upon completing a synthesis course, students will be able to:

1. Communicate effectively in both oral and written forms, applying appropriate rhetorical standards (e.g., audience adaptation, language, argument, organization, evidence, etc.)
2. Using perspectives from two or more disciplines, connect issues in a given field to wider intellectual, community or societal concerns
3. Apply critical thinking skills to:
   a. Evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources, OR,
   b. Judge the quality or value of an idea, work, or principle based on appropriate analytics and standards

All approved general education learning outcomes are published in the University Catalog and on the websites of the Provost's Office and the Office of Institutional Assessment. The synthesis learning outcomes were first distributed to associate deans, department chairs, undergraduate coordinators, and course coordinators in fall 2009. Faculty Information Sessions were held at the end of the fall semester for faculty who would teach a synthesis course in Spring 2010, explaining synthesis outcomes and preparing them for the upcoming synthesis assessment. Before the beginning of the Spring 2010 semester, an email was sent out from the Associate Provost for Undergraduate Education to all faculty members who taught synthesis courses in spring. The email urged faculty members to re-examine the alignment of their course learning outcomes with synthesis learning outcomes and explicitly communicate the purposes and learning outcomes of synthesis courses to their students. Since then, the email has been sent every semester. Because of extensive faculty discussions, debates and involvement, these outcomes have substantial faculty buy-in and are adopted by faculty along with other course-specific outcomes for course development.

Critical Thinking Learning Outcomes

Synthesis learning outcomes include three large domains of learning: communication (written and oral), interdisciplinarity and critical thinking. The university has a long tradition of faculty-led efforts in defining and assessing these domains of learning with the support from the Office of Institutional Assessment, the Office of Undergraduate Education, the Center for Teaching Excellence and the Writing Assessment Group. Synthesis faculty members are the driving force in defining critical thinking, adopting innovative approaches in teaching critical thinking, developing inter-disciplinary critical thinking rubrics, and assessing critical thinking in synthesis.
In spring 2010, a Critical Thinking Across the Curriculum (CTAC) faculty learning community was established. It was composed of eight faculty members who taught synthesis courses in that semester and several administrators and assessment professionals from the Provost Office. Building on the previous work produced by earlier interdisciplinary faculty teams in 2006 and 2007, the CTAC faculty learning community reviewed literature on critical thinking, and shared teaching strategies and assessment methods. At the end of the semester, the learning community refined the definition of critical thinking for undergraduate education at Mason, developed a guiding rubric for critical thinking, and rated samples of student work collected from synthesis courses.

The faculty learning community adopted the following definition of critical thinking:

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion. The capacity to combine or synthesize existing ideas, images, or expertise in original ways; thinking innovatively; and intellectual risk taking – all components of critical thinking - are part of the development of critical thinking (CTAC Faculty Learning Community, 2010).

The Development of Critical Thinking Rubric, proposed by the CTAC faculty learning community, was adapted from the AAC&U VALUE rubrics for critical and creative thinking. The rubric articulates fundamental criteria for the development of critical thinking, with performance descriptors demonstrating progressively more sophisticated levels of attainment. It provides a vision for the critical thinking competence that a Mason graduate is expected to demonstrate. The rubric includes the following elements:

1. Intellectual autonomy: Developing the critical thinker
2. Explanation of issues
3. Evidence
4. Influence of context and assumptions
5. Student’s position (perspective, thesis/hypothesis)
6. Conclusions and related outcomes (implications and consequences)
7. Taking risks
8. Innovative thinking
9. Connecting, synthesizing, transforming

The rubric includes detailed descriptions of four levels of achievement for each element: “Novice,” “Milestone: Emerging,” “Milestone: Showing Strength,” and “Expert/Advanced.” It is designed to be transdisciplinary and to be used for many different types of assignments. The CTAC faculty learning community piloted the rubric using the student products collected from a representative array of synthesis courses. The rubric is sent to all synthesis instructors before a semester starts with the email from the Associate Provost for Undergraduate Education.

Award Criteria

Criterion 2: Completing the Assessment Process
Describe how your institution assessed the learning identified in Criterion 1 above. Address the following issues:
Exploring New Assessment Approaches for General Education

The university has a long tradition of conducting faculty-led and improvement-focused learning outcomes assessment. Critical thinking was assessed in 2006 and 2007 by an interdisciplinary team of faculty. They reviewed student papers or graded student presentations/posters from synthesis courses using a common critical thinking rubric; however, the assessment was based on faculty’s voluntary participation.

In 2007, the assessment office and the General Education Committee decided that a new approach to assessment was needed and began the task of researching various assessment methods that would not only fit into the university’s culture but could also achieve the following purposes: 1) improvement of the current practices of assessing the general education areas not already required by the State Council of Higher Education (SCHEV); 2) assessment of the alignment of course learning outcomes with general education learning outcomes for the area the course was approved for; and 3) assessment of student achievement of general education learning outcomes. The last two purposes are intricately connected: students may not be able to demonstrate the desired learning outcomes if the course is not set up to systematically introduce, enforce and challenge the students through well-designed learning activities and assessment methods.

After a thorough survey of assessment methods and a deep reflection on the assessment approaches the university employed in the past, the Committee became interested in the course portfolio method used by a sister institution in Virginia, the College of William and Mary, and eventually paid a visit to the college. Impressed with the involvement of faculty in the course portfolio process, the Committee agreed that, with modifications, the faculty course portfolio was a methodology that held considerable potential to involve more Mason faculty in the assessment process, and, more importantly, in the ownership of general education as a university-wide program.

Adopting a Faculty Course Portfolio Assessment System

In 2008, the University formally adopted the faculty course portfolio as the primary assessment method for selected general education areas: arts, western civilization/world history, literature, social and behavioral sciences, global understanding and synthesis. A faculty course portfolio is prepared by an individual faculty member and is composed of the following components: a course syllabus, selected course assignments/projects, samples of student work, and a faculty reflection. Most student work samples are randomly selected: the assessment office conducts the random sampling for the instructor and the instructor can provide one self-selected sample. The most important component of the portfolio is faculty reflection, in which a faculty member explains how the relevant general education learning outcomes are incorporated and assessed in the course, how well students achieve these outcomes, and what changes have been or will be made to improve student learning. In addition to faculty course portfolios, a student learning outcomes survey is conducted among all students who are enrolled in a general education course in the area under review. The survey focuses on students’ perceptions of course emphases.
C
ourse portfolios are reviewed by two faculty reviewers, one from a related field and the other from the University General Education Committee. Portfolio review guidelines (from which a review rubric is generated for each general education area) were developed by a small working group of faculty members and assessment professionals in 2009. The review rubric focuses on the alignment of course learning outcomes with the general education learning outcomes for the area it belongs to, the effectiveness of the course in addressing these learning outcomes, student achievement as reflected in work samples, and the overall course effectiveness. It also includes open-ended questions for reviewers to comment on the best features of the course and areas for improvement. Reviewers work independently and consult each other as needed. Each portfolio receives two sets of ratings. If the first two reviewers come to different judgments on the overall effectiveness of the course in addressing general education learning outcomes, a third reviewer conducts an independent review.

A pilot of faculty course portfolio assessment was conducted in spring 2008 and the first round of assessment was conducted in spring 2009 in three areas: arts, literature and western civilization/world history. The second round of assessment was conducted in fall 2009 in two areas: global understanding and social and behavioral sciences. Approved courses for these five areas were randomly selected to participate in the assessment.

Collecting Faculty Course Portfolios and Samples of Student Work
The assessment of synthesis and critical thinking was conducted in spring 2010. Among over 60 approved synthesis courses, 44 (99 sections) were offered by 84 faculty members with a total enrollment of 2,438 students. Except for a few courses with low enrollment (<3), almost all courses were included in the assessment. For every eligible course, one faculty member was identified or randomly selected (for courses offering multiple sections) to participate in the portfolio assessment. These faculty members were asked to create a course portfolio by the end of May 2010. The remaining faculty members who taught sections of synthesis courses were asked to submit samples of student work from an assignment that would best demonstrate students’ critical thinking skills. The assessment office conducted a random sampling of 4-6 students from each section of the synthesis courses and asked the instructor to provide one sample of work per randomly selected student by the end of the semester.

Information sessions for participating faculty and their chairs were conducted in December 2009 and January 2010. Faculty workshops on strategies for developing a course portfolio were conducted in March 2010, in addition to individual consultations throughout the semester. Through this training, faculty members became familiar with the synthesis outcomes and gained a deeper understanding of the nature of synthesis courses in the university’s general education curriculum. Some immediately revised their syllabi and/or assignments to better align their courses with synthesis outcomes and some decided to adopt the university’s critical thinking, writing and/or oral communication rubrics in their courses. By the end of May 2010, a total number of 26 course portfolios (representing 27 courses) were collected as well as more than 230 student work samples (approximately 10% of the enrolled students). The faculty who submitted the portfolios taught a total number of 924 students (38% of the total synthesis enrollment).

Setting Up Review Teams
Two review teams were organized: one for portfolio review and one for critical thinking assessment. The portfolio review team was composed of 11 faculty members from the University General Education Committee and the assessment professionals. The critical thinking assessment team was composed of 15 faculty reviewers who participated in either the spring 2010 CTAC learning community or previous assessments of critical thinking.

The portfolio reviewers focused on the course alignment and effectiveness. The daylong review workshop started with a calibration training in which the reviewers rated a sample course portfolio using the synthesis review rubric, shared their assigned ratings, and discussed discrepancies in ratings. Then, the reviewers broke up in teams...
and worked on their assigned courses. In general, it took a reviewer 60-90 minutes to review one portfolio.

The critical thinking assessment team went through a similar calibration training and review workshop. Each student work sample was assessed for every element identified in the Development of Critical Thinking Rubric using the following scale: “Novice,” “Milestone: Emerging,” “Milestone: Showing Strength,” and “Expert/Advanced.” To acknowledge that some elements in the rubric might not have been addressed in some assignments, a fifth category, “Not Addressed,” was added to the grading rubric. The reviewers rated a total number of 151 work samples from 43 synthesis courses/sections taught by 42 faculty members. A majority of the samples was in the form of written research papers submitted by individual students. The samples also included student presentation slides, portfolios, group papers and projects, and exam questions. Overall, 82% of the student work was completed individually and 19% collaboratively with group sizes ranging from four to seven students.

Award Criteria

Criterion 3: Analyzing Assessment Results
Describe how your institution analyzed assessment results to identify, select, and implement improvements. Address the following issues:
• Who analyzed the data and what level of collaboration existed
• What processes were used to analyze the results
• What the results revealed about student learning, and which learning results were viewed as most significant in terms of success, limited success, and/or lack of success
• What the results revealed about your assessment tools and methods
• How extensively the results were communicated to faculty, students, and administration

Please limit your response to two pages. The following text box may be increased in size as necessary.

Data Analysis/Reporting Processes
The Office of Institutional Assessment conducts data analysis for the general education assessment. Reviewers complete the review rubrics online and the ratings are entered automatically into an Oracle database. The assessment staff downloads the data and conducts the analysis using SPSS. Student learning outcomes surveys are also conducted online.

For reporting purposes, all data are analyzed at the aggregate level without disclosure of individual course, faculty, or student information. A typical general education assessment report published by the Office of Institutional Assessment includes the following sections: learning outcomes for the general education area under review, an overview of assessment method and data collection process, detailed presentation of results combining portfolio review results with student survey results, a summary of findings, and plans for using the results for improvement. The most recent course portfolio assessment reports can be found at the following website: https://assessment.gmu.edu/Genedassessment/results.html. The aggregated reports are distributed at the University General Education Committee meetings, reviewer debriefings, and debriefings for participating faculty and their department chairs. The Office of Institutional Assessment further publishes an In Focus report that
combines the assessment results from several general education areas. *In Focus* reports are distributed widely to senior administrators, deans, department chairs, program directors, undergraduate coordinators and key faculty members across campus.

In addition to aggregated reports, individual reports are also produced for each participating faculty member. Individual reports include portfolio ratings and student survey results. For courses with satisfactory review results, individual reports are distributed at a debriefing or via email after the debriefing to participating faculty and their chairs. For courses with less than satisfactory results, individual reports are distributed during a “department tour” in which the Associate Provost for Undergraduate Education, the Associate Provost for Institutional Effectiveness, and the Director of Institutional Assessment go to departments to meet with the chair as well as any faculty the chair brings to the meeting.

**Synthesis Review Results**

The *synthesis assessment data* are analyzed and results distributed following the process described above. The synthesis assessment revealed that almost all courses participating in the assessment addressed all three synthesis learning outcomes but with various success. From the reviewers’ perspective, written communication and critical thinking were addressed most successfully with over 80% of the courses receiving “outstanding” or “good” ratings. Outcome 2, “connecting issues in a given field to wider intellectual, community or social concerns using perspectives from two or more disciplines,” received the most substantial “poor” ratings (16%) of all outcomes. Reviewers found that some courses, although studying significant issues in their own field, were weak in incorporating perspectives from multiple disciplines. Students, on the other hand, were most likely to agree that the synthesis courses contributed significantly to their critical thinking skills and the ability to connecting issues using multiple perspectives. Students were less likely to agree that synthesis courses contributed to their written and oral communication skills. Students may feel that writing and oral communication skills are not taught in synthesis courses, but are used to demonstrate their learning.

The portfolio reviewers generally gave high ratings to the following aspects of the courses: 1) congruence of the synthesis learning outcomes with the course content and goals, 2) appropriateness of course material for the general education curriculum, 3) course structures and procedures that contribute to the likely achievement of the synthesis outcomes by students, and 4) appropriateness of the assignments or forms of assessment in relation to the synthesis outcomes. Half or over half of the ratings for these four aspects were “outstanding.” *Articulation of the synthesis learning outcomes for students* was rated the lowest: “outstanding” and “good” ratings accounting for 58% and “poor” ratings accounting for 35%. Lack of communication to students about the purpose as well as the learning outcomes of a general education course is found across all six general education areas assessed through faculty course portfolios. We suspect this is a result of not having well-defined common learning outcomes prior to 2008.

On the overall effectiveness of the course in addressing the intended synthesis learning outcomes, “outstanding” ratings accounted for 48% and “good” ratings accounted for 23%. A majority of the students felt that the courses had contributed to their knowledge and skills in synthesis: 35% selected “very much” and 33% selected “quite a bit.”

In the spring 2010 semester, when synthesis courses were under review, the Center for Teaching Excellence (CTE) organized a CTAC faculty learning community. Eight faculty members who taught synthesis courses in that semester voluntarily participated in the learning community and completed a course portfolio. The Office of Institutional Assessment conducted further analyses, comparing the portfolio ratings of the CTAC faculty learning community members with their peers who did not participate. CTAC members addressed writing and critical
thinking outcomes more effectively than their peers. CTAC members also received significantly higher ratings than their peers in the following areas: 1) articulation of the synthesis learning outcomes for students, 2) course structures and procedures that contribute to the likely achievement of the synthesis outcomes by students, and 3) the overall effectiveness of the course in addressing synthesis learning outcomes. Furthermore, reviewers identified four exemplary synthesis courses, all offered by CTAC members.

Critical Thinking Assessment Results
The critical thinking assessment data were analyzed and reported by course level because reviewers believed that the level of expectations for student achievement should be set separately for 300-level courses (for juniors) and 400-level courses (for seniors). In 300-level synthesis course, a majority of the students should demonstrate the level of “Milestone: Emerging,” and in 400-level courses, a majority should demonstrate the level of “Milestone: Showing Strength.”

Overall, of the nine elements included in the Development of Critical Thinking Rubric, students were rated relatively high on four elements: 1) explaining issues, 2) demonstrating intellectual autonomy, 3) selecting and using evidence, and 4) identifying and examining influence of context and assumptions. Student work samples were rated relatively lower on three elements: taking risks, innovative thinking, and connecting, synthesizing and transforming. Student work samples from 400-level courses were rated significantly higher than those from 300-level courses on two elements: taking risks and connecting, synthesizing and transforming. Every element had some students in both 300 and 400 level courses at the Expert/Advanced level. The expectation that 300-level courses would show a majority of students at “Milestone: Emerging” or higher was met in all elements except for taking risks. The expectation that 400-level courses would show a majority of students at “Milestone: Showing Strength” or higher on all elements was not met. This result may be related to the fact that synthesis courses, regardless of course-level, often enroll both juniors and seniors. Some of the work samples did not include student names or identifier, making it impossible to conduct further analysis by student academic standing. This area will be improved upon in the future.

Award Criteria

Criterion 4: Making Improvements
Describe your institution’s effort to identify needed learning and methods improvement projects following the analysis of assessment data. Address the following issues:

- What learning improvement projects your institution selected, especially focusing on high-impact, active learning strategies, and/or faculty development activities
- What improvements in the assessment methods your institutions selected (if needed)
- What outcome statement improvements/adjustments were needed (if any)
- Who collaborated on targeted learning or methods projects and at what level of activity
- What level of institutional support was provided for the improvement projects, such as funding, personnel, and faculty development
- What plans exist to follow up on targeted improvement projects to check for improvement
- What lessons were learned from the improvement process

Please limit your response to two pages. The following text box may be increased in size as necessary.
The general education and critical thinking assessment processes outlined above have resulted in several important steps toward the creation of a more effective learning environment, including faculty development opportunities, course development grants, modification to the general education course proposal and approval process, and a syllabi review by the University General Education Committee. At the center of these efforts are faculty leadership, ownership and improvement of the general education program. The Provost Office has provided substantial financial resources (to fund course re-design and faculty stipend) to achieve these goals. Collaboration among key offices, such as the Office of Undergraduate Education, the Office of Institutional Assessment, and the Center for Teaching Excellence (CTE), is the foundation for managing these activities and assessing their effectiveness.

**Faculty Development**

George Mason University has a tradition of using assessment results to identify areas for faculty development. The results from the 2006 and 2007 assessments of critical thinking indicated a need for infusing critical thinking throughout the Mason curriculum. In late 2007, the Provost funded the Critical Thinking Across the Curriculum (CTAC) initiative, which is co-managed by the CTE and the assessment office. CTAC aims to support faculty in developing assignments, projects and programs that foster critical thinking among students. To this end, between 2007-2009, CTAC regularly offered critical thinking workshops to faculty and funded faculty projects to revise and develop courses in which critical thinking is explicitly incorporated into assignments, lectures, and the assessment of student learning. CTAC—awarded projects are available at the following website: [http://ctac.gmu.edu/projects.htm](http://ctac.gmu.edu/projects.htm).

In Spring 2010, to increase awareness of the new synthesis learning outcomes and the central role synthesis courses play in developing students’ critical thinking skills, CTAC collaborated with the Office of Undergraduate Education and organized the first CTAC faculty learning community for synthesis instructors. Eight faculty members volunteered to participate in addition to staff from CTE and the assessment office. Each CTAC faculty member received a stipend, met regularly during the semester, completed assigned readings, sharing teaching strategies, critiqued each other’s assignments, developed a new definition for critical thinking, proposed a new critical thinking rubric, completed a course portfolio and served as reviewers for the critical thinking assessment at the end of the semester. The 2010 assessment results clearly indicated the success of the learning community in several areas: CTAC faculty learning community members addressed critical thinking in their courses more intentionally and systematically, they were more likely to communicate synthesis and critical thinking learning outcomes to the students, and they designed innovative and effective assignments in assessing critical thinking. Because of its success, a second CTAC faculty learning community was offered in Spring 2011 with 10 faculty members.

**Course Development Grants**

Another result of the general education assessment process is the creation of a Provost Office and General Education Committee-directed funding pool of approximately $100,000 annually to support innovative proposals in undergraduate pedagogy. Called SEGUE (Student Engagement Grants in Undergraduate Education), the program solicits course redesign or other ideas that focus on traditional problem areas in large general education courses, such as using knowledge-based multiple choice exams...
as the only assessment method for student learning and the lack of student involvement in critical thinking activities and assessments. The first eight SEGUE grants were awarded in Spring 2011 and each includes an assessment plan so that by next summer we will begin to see the effect on student learning. The University General Education Committee will work with the assessment office to evaluate the success of the SEGUE program.

**Cultural Change**

Perhaps the most profound, but also the hardest to measure, is the culture change that has begun to take place around the large question of liberal and general education’s role in the university, and the articulation of its intentionality to faculty and, more importantly to students. When the first round of course portfolio assessment was conducted, some selected faculty members (including members of the University General Education Committee) were “surprised” to find that they were teaching a general education course. Now, we expect there is a significant decrease in such surprises. As the chair of the History department put it, “faculty are more aware of making an explicit connection between the course and the gen ed rubric [learning outcomes] in their syllabi and assignments.” Or, in the words of a senior faculty member in Sociology, “the first day of the semester, I emphasized that this was a gen ed course, showed them the catalogue description, and then detailed what a liberal arts education entailed -- emphasizing in the end, that a liberal arts education focused on learning to think, specifically critical thinking, more than being about “facts” per se, since facts often change.”

The University General Education Committee now uses a revised Course Approval Form for several general education areas. The new form includes area-specific learning outcomes and the requirement for learning outcomes alignment. Departments not only need to provide a syllabus, but also answer the following questions: what general education learning outcomes does the proposed course address and what assignments will allow students to demonstrate each learning outcome. When the Committee reviews newly proposed courses, the discussions tend to focus on the potential that a course will effectively address related general education learning outcomes. In one case, a conditional approval decision was made: the Committee allowed the department to pilot the new course but required a course portfolio at the end of the pilot semester for the consideration of final approval. The new learning outcomes and the assessment results have energized the University General Education Committee: it further decided to conduct a syllabi review of all approved general education courses to assess the alignment of each individual course with its related general education area.

The culture shift around general education at Mason is attributable to three primary drivers: clearer articulation of the mission of the general education program, with increasing emphasis on critical thinking; the unprecedented interdisciplinary conversations among faculty who created the learning outcomes and then the different teams that conducted the course portfolio review; and the clear and actionable feedback from the assessment process to the faculty, chairs, and Deans. The challenge for the assessment professionals is to systematically document these changes. One of the proposed projects is to construct a general education faculty resources website that showcases the best practices discovered from course portfolio reviews. We are confident that in the next round of general education assessment (i.e., once every five years for each general education area), we will be able to demonstrate a more effective learning environment for students to achieve general education outcomes.
### Supporting Document List

Supporting documents are listed according to the order they are cited in the application. Please click the hyperlinks to access these documents online.

2. **General Education Requirements of George Mason University** ([http://provost.gmu.edu/gened/general-education-requirements/](http://provost.gmu.edu/gened/general-education-requirements/))
   - General Education Assessment Website ([https://assessment.gmu.edu/Genedassessment/index.html](https://assessment.gmu.edu/Genedassessment/index.html)): for learning outcomes, assessment method, review guidelines, and review results
5. **Faculty Course Portfolio Requirements** ([https://assessment.gmu.edu/Genedassessment/methods.cfm?print=yes](https://assessment.gmu.edu/Genedassessment/methods.cfm?print=yes))
7. **Course Portfolio Assessment Reports** ([https://assessment.gmu.edu/Genedassessment/portfolioreview.html](https://assessment.gmu.edu/Genedassessment/portfolioreview.html))
8. **In Focus Reports** ([https://assessment.gmu.edu/Results/InFocus/infocus.html](https://assessment.gmu.edu/Results/InFocus/infocus.html))
   - General Education Assessment in Arts, Literature and Western Civilization, 2009 ([https://assessment.gmu.edu/Results/InFocus/2010/In%20Focus%20Gen%20Ed%20Assessment%20final.pdf](https://assessment.gmu.edu/Results/InFocus/2010/In%20Focus%20Gen%20Ed%20Assessment%20final.pdf))
10. CTAC Awarded Projects Website (http://ctac.gmu.edu/projects.htm)
11. General Education Course Approval Forms (http://provost.gmu.edu/gened/resources-for-faculty/)