



# CHAPMAN UNIVERSITY

## GENERAL EDUCATION ASSESSMENT REPORT [March 5, 2020]

General Information	
General Education Assessment Area	Quantitative Inquiry
Department/ School	N/A
Number of students currently in the discipline	(1324; Data retrieved from Panther Analytics 7.10.19)
Contact Person	
Name <i>(Person coordinating assessment effort)</i>	Richard Ruppel, Director of General Education
E-mail address	ruppel@chapman.edu

### **OVERVIEW/DESCRIPTION**

In fall, 2019, the Office of Assessment, overseen by Joe Slowensky, Vice Provost of Institutional Effectiveness, initiated an assessment of the Quantitative Inquiry category of Chapman University's General Education program. Paul Kang, Director of Accreditation and Assessment, asked 10 instructors of Math 110, 111, 203, and 210, of Psychology 203, and of Management Science 209, to assess all of their students, using a six-part quantitative assessment rubric, a modified version of the one offered by the American Association of Colleges and Universities (AAC&U).

The overall sample size was 389 students, which constituted 29% of students enrolled for GE QI.

The assessment suggested that over 80% of students scored adequately or above on 5 of the 6 rubric criteria; 70% of students, however, scored adequately or above on theorization, the "ability to make and evaluate important hypotheses in estimation, modeling, and data analysis." We will address this in our meetings with instructors this spring.

This assessment will be used going forward, in approximately three-year cycles. We will take more time at the beginning of the process to make sure the assessing faculty are well-aligned in their application of the rubric and that their instruments (assignments or exams) are appropriate. We will also make sure the results are communicated with the relevant departments and faculty.

Learning Outcome I. Process:	
Student Learning Outcome	Students create sophisticated arguments supported by quantitative evidence and can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate)
Supports University Theme ( <i>Some or all of the program's learning outcomes must support at least two of the university's strategic themes</i> ) <ul style="list-style-type: none"> <li>Themes: <i>Internationalization, Personalized Education, Faculty/Student Research, Interdisciplinarity, or Student Writing</i></li> <li>Describe how the theme is supported by the learning outcome</li> </ul>	Mathematics is the true universal language, employed across nearly every discipline, recognizable in every culture. It is interdisciplinary in its application and international in its use and significance.
Supports WASC Core Competency, For Undergraduate Programs Only (Please indicate whether this outcome supports any of WASC's core competencies) <ul style="list-style-type: none"> <li>Oral Communication</li> <li>Written communication</li> <li>Information Literacy</li> <li>Quantitative Reasoning</li> <li>Critical Thinking</li> </ul>	These General Education courses obviously support the quantitative reasoning WASC Core competency.
Where is the outcome published for students? <ul style="list-style-type: none"> <li>Syllabi (If syllabi, list course numbers)</li> <li>Website</li> <li>Handbook</li> </ul>	The GE QI Learning Outcome is published on all courses that fulfill the GE QI requirement. The description of the competency, along with the learning outcome, is also published <a href="#">here</a> , along with a list of all courses in that category, with links to syllabi.
Evidence of Learning <ul style="list-style-type: none"> <li>capstone project</li> <li>presentation</li> <li>performance</li> <li>course-embedded exam</li> <li>assignment</li> <li>standardized test</li> <li>portfolio</li> </ul>	<p>GE Quantitative Inquiry (QI) instructors were instructed to choose an assignment from their courses that would address the QI Learning Outcome sufficiently (see assessment instructions below). Given the variety of courses in different programs that meet the GE QI requirement, it was not possible to assign a common assignment. This challenge and requirements for choosing an appropriate assignment were discussed and agreed to during the initial assessment meeting on 11/4/19 with the instructors. As such, there were a variety of assignments chosen for this assessment (see assignment prompts folder).</p> <ul style="list-style-type: none"> <li><a href="#">GE QI Instructions for Instructors</a></li> <li><a href="#">GE QI Assignment Prompts</a></li> </ul> <p>When instructors decide to use the final exams to assess the AI Learning Outcome, it is not included in the assignment prompt folder in order to protect the exam from unauthorized distribution.</p>

<p>Collecting and Analyzing the Data</p> <ul style="list-style-type: none"> <li>• <i>How did you select the sample?</i></li> <li>• <i>What was your sample size (number of students)?</i></li> <li>• <i>Provide the percentage of the sample size as compared to the relevant population.</i></li> <li>• <i>How did you assess the student work/data collected?</i> <ul style="list-style-type: none"> <li>• <i>Possible Tools: rubric, exam questions, portfolio samples</i></li> <li>• <i>Attach all assessment tools</i></li> </ul> </li> </ul>	<p>In fall 2019, Chapman University offered 71 GE QI courses (some with multiple sections). These also include study abroad courses. There were a total of 1324 students enrolled in these courses.</p> <ul style="list-style-type: none"> <li>• <a href="#">GE QI Course List</a></li> </ul> <p>In order to get a representative sample across the programs, we employed a stratified sampling design. From each program, we randomly selected instructors and asked if they would be interested in participating in the GE assessment. 10 instructors teaching 15 sections volunteered to participate in the GE assessment. The enrollment for these course sections are as follows:</p> <table border="1"> <thead> <tr> <th>Course</th> <th>Sample</th> </tr> </thead> <tbody> <tr> <td><b>Math 110</b></td> <td><b>42</b></td> </tr> <tr> <td><b>Math 111</b></td> <td><b>93</b></td> </tr> <tr> <td><b>Math 203</b></td> <td><b>64</b></td> </tr> <tr> <td><b>Math 210</b></td> <td><b>48</b></td> </tr> <tr> <td><b>Psychology 203</b></td> <td><b>26</b></td> </tr> <tr> <td><b>Management Science 209</b></td> <td><b>116</b></td> </tr> </tbody> </table> <p>The overall sample size was 389 students (29% of students enrolled for GE QI). Instructors assessed their chosen assignment (see an explanation for prompt #5 above) using the GE QI Learning Outcome Rubric (see below). They were instructed to choose an assignment toward the end of the course in order to appropriately assess their knowledge and skills in this GE area. The GE QI Learning Outcome Rubric has six assessment criteria: (a) Interpretation; (b) Representation; (c) Calculation; (d) Analysis; (e) Theorization; (f) Communication.</p> <ul style="list-style-type: none"> <li>• <a href="#">GE QI Rubric</a></li> </ul>	Course	Sample	<b>Math 110</b>	<b>42</b>	<b>Math 111</b>	<b>93</b>	<b>Math 203</b>	<b>64</b>	<b>Math 210</b>	<b>48</b>	<b>Psychology 203</b>	<b>26</b>	<b>Management Science 209</b>	<b>116</b>
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<p>Expected Level of Achievement</p> <ul style="list-style-type: none"> <li>• <i>What was your target(s) for student performance for this outcome? (This should tie to the methods in which you assessed the students and collected and analyzed data in the section above.)</i></li> </ul>	<p>For each of the six criteria, our target was to achieve a mean score of 2 (from score range of 1-4) or greater across all participants, indicating basic levels of proficiency.</p>														
<p><b>II. Progress</b></p>															
<p>1. How have previous years' findings been used to improve learning, courses and program in relation to this outcome? Specify.</p> <ul style="list-style-type: none"> <li>• <i>Refer to previous years' assessment reports/responses for this section.</i></li> <li>• <i>How did this year's achievement level compare to past years?</i></li> <li>• <i>Show year-to-year progress, preferably in a data table.</i></li> </ul>	<p>The previous GE QI assessment was conducted under different conditions and has issues relating to sample size, incomplete or inadequate submissions, and other logistical issues. Thus, prior findings were not deemed sufficient for comparison with the current assessment strategy. Going forward, future assessments will be consistent with this year's process and more effective longitudinal comparisons may be drawn.</p>														
<p>2. Based on your analysis and review, what improvements (if any) will the program initiate in the coming academic year?</p>	<p>We will treat this round of assessment as our baseline and use the same rubric in the future. To ensure the validity of this assessment, we will spend time normalizing the process, making sure all assessing faculty share a similar understanding of the standards implicit to the</p>														

	<p>rubric, and making sure all the assignments are appropriate: well-aligned to the learning outcome. Finally, we will find ways to close the loop, to make sure the departments and faculty offering these courses see the results of the assessment and have the time and resources to consider how to respond to those results. The one area of concern appears to be students' abilities in theorization, the "ability to make and evaluate important hypotheses in estimation, modeling, and data analysis."</p>
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