

To: Education Policy Committee
From: GER 3 Working Group
Re: GER 3 Assessment

The GER 3 working group, composed of David Armstrong (Physics), Kathleen Bragdon (Anthropology), John Gilmour (Government), and Catherine Levesque (Art History), was charged with evaluating the degree to which the courses that confer GER 3 credit do in fact accomplish the purpose of providing a general background in the social sciences.

The working group employed two different assessment methods: portfolios supplied by faculty teaching GER 3 courses, and questionnaires administered to students and faculty in GER 3 courses. In constructing measures, the working group relied extensively on the language of the GER 3 description as adopted by the Faculty. The official GER 3 description is attached as an appendix to this document.

Judging from both course portfolios and students survey responses the GER 3 courses, considered as a whole, satisfy the GER 3 requirements reasonably well. We found no major causes for concern.

Portfolios. Portfolios consisted of material supplied by instructors of GER 3 designated courses, including, at a minimum, course syllabi, examples of examinations, and papers or other assignments submitted by students. Two judges rated each portfolio according to seven criteria that were extracted from the GER 3 guidelines adopted by the faculty. Both judges determined for each course whether it "clearly," "somewhat," or "not at all" satisfied each of the seven criteria. They also had the option of stating that they "could not judge" based on the available evidence. We received portfolios for 51 courses.

Members of the working group were unsure of what would constitute an appropriate degree of compliance with the GER 3 guidelines, and so designated three distinct standards, each indicating a different level of compliance:

- a very high level of compliance (when both judges concluded that the course "clearly" satisfied a criterion)
- a moderate compliance (where both judges concluded that the course at least "somewhat" satisfied the criterion)
- low compliance or possible noncompliance (where at least one judge concluded the course satisfied the criterion "not at all").

Obviously, the higher the percentage of cases in the first and second categories, the better GER 3 is served, and the more in the third, the worse. The percentages of

courses satisfying each of these standards, for each of the criteria, are displayed in the first three columns of Table 1.

The percentages in columns 1 and 2 of Table 1 are gratifyingly high. "Knowledge of basic ideas," probably the most important single criterion, is "clearly" satisfied by 86% of courses; only 2% of courses (one course, to be precise) was found by at least one judge not to satisfy this criterion at all. Most important, the percentages in column [2] are uniformly high, with the lowest being [d], Knowledge of underlying assumptions. Apart from [d], none are lower than 79%, meaning that in almost 80% of cases, both judges found that the course satisfied the criterion at least somewhat.

Some courses were found not to satisfy various GER 3 guidelines. The highest percentages in column 3 were for "Consider public policy implications," "Apply empirical methods," and "Knowledge of underlying assumptions." The first two of these were not considered by members of the working group to be crucial aspects of a GER 3 course. We understand that some courses justifiably focus more on theory and less on empirical applications. Many courses focus on public policy implications, but it is not a problem that some courses do not, because this is not a requirement of GER 3.

In some cases judges could not decide, based on the evidence before them, whether a given course satisfied a criterion. Column [4] reports the cases where both judges concluded they could not judge. Inability to judge was especially high for item [d], "Knowledge of Underlying Assumptions," where both judges agreed that they could not judge in 18% of cases (nine, to be exact). This question should be reworded or eliminated, or instructors should be encouraged to make clearer in their portfolios how their courses address the underlying assumptions of their field of inquiry.

It may be a problem that all instructors of GER 3 courses did not provide portfolios. A total of 86 GER 3 courses were taught in the 1998-98 academic year, and Faculty submitted 51 portfolios -- a response rate of about 60%. The portfolio response rate is not egregiously low, but, because we cannot assume that the portfolios submitted are a random sample of all GER 3 courses, the response needs be higher if the assessment is to accurately reflect the totality of GER 3 courses. The response may be low because this is a new requirement. Over time the response rate from faculty should rise, and there was in fact a higher rate in the Spring semester compared to the Fall. Also, some GER 3 courses were taught twice by one instructor; in those cases the instructor submitted only one portfolio. In the future we must attend to the response rate of faculty. We might also consider soliciting portfolios from a random sample of all GER 3 courses in order to reduce the burden on both faculty submitting portfolios and those who evaluate them.

**Table 1:
Summary of Portfolio Ratings**

[Entries are percent of courses in each group]

	[1] Both "Clearly"	[2] Both at Least "Somewhat"	[3] At least One "Not At All"	[4] Both Could Not Judge
[a] Knowledge of Basic Ideas	86%	98%	2%	0%
[b] Knowledge of Theories	55%	88%	4%	2%
[c] Knowledge of Methodologies	43%	82%	8%	8%
[d] Knowledge of Underlying Assumptions	41%	67%	4%	18%
[e] Apply Empirical Methods	43%	79%	18%	6%
[f] Analyze Social Phenomena	65%	94%	6%	0%
[g] Consider Public Policy Implications	51%	80%	20%	0%

Student Questionnaires. Students in GER 3 courses were asked to complete a form with nine questions, all derived by the working group from the GER 3 description adopted by the faculty. Most questions asked students to use a five-point scale to respond, with five meaning that the course satisfied the criterion to a "great extent", and one meaning "not at all." Two questions asked for a yes or no response. We received student survey responses for 76 courses.

For each of the questions, we have calculated means for each course. Column [1] in Table 2 reports the means of all courses. All of them are above 3, the midpoint on the scale, and the lowest is 3.3. Some are substantially above that.

We have designated several categories, analogous to those used for analyzing the portfolios, to identify the percentage of courses that are satisfying the standards well, adequately, and inadequately. We assume that any course with a mean on a given criterion of at least 4 on a scale of one to five satisfies the criterion very well. If the mean for a class is three or above, the course satisfies the GER criterion adequately, but not necessarily well. For courses with a mean of 2.5 or less, there may be a problem.

The vast majority of courses do at least an adequate job of satisfying the goals of GER 3. As column [1] of Table 2 reports, all of the questions had means of above 3, the midpoint on the five-point scale. Column [2] reports the percentage of courses with means of at least four. For five of the seven questions, more than ten percent of classes meet this very high standard. More importantly, as column [3] reports, for six out of seven questions, at least eighty percent of classes had means above three.

Few courses appear not to satisfy the GER 3 guidelines. For five of the seven questions, either no courses or only 1 percent had means of 2.5 or less. The highest in this category, with 13%, concerned reviewing research studies. Members of the working group considered this criterion to be a useful one, but not required under the GER 3 guidelines.

Other issues. The working group also considered several other issues: (1) whether there was significant variation among departments in the extent to which their courses satisfy the GER 3 requirements; (2) whether courses taught by temporary faculty differ from those taught by the permanent faculty; and (3) whether upper level courses differ from introductory classes.

If some departments were systematically doing a better job of satisfying the GER 3 requirements than other departments, that might suggest a cause for concern. It appears however, that no such differences exist. Table 3 reports mean scores for the student questionnaire responses for those departments in which at least three GER 3 courses were taught by at least three instructors. There are only minor differences among the departments, and no department exhibits low scores across the board. The differences that do exist probably reflect disciplinary differences. For example, Economics scores substantially lower than other departments on the question concerning reviewing and critiquing research studies. All of the Economics GER 3 classes are introductory classes and do not involve use of math or statistics. Reviewing and critiquing Economics research studies requires more math or statistics than instructors of introductory classes can assume.

Because visiting and adjunct faculty teach many introductory classes, it would be troubling if this reliance on them for teaching GER 3 courses results in weaker satisfaction of the GER 3 guidelines. Table 4 compares means of two groups: (1) "regular" faculty, defined as tenured and tenure-eligible faculty and (2) "adjunct" faculty, defined as non-tenure eligible faculty. For all questions but one, the adjunct faculty score lower than the regular faculty. In some cases the differences are fairly large -- for example, on the question concerning reviewing research studies, the regular faculty scored 3.5 on a scale of 1 to 5, while the adjunct faculty scored 2.9. It may be that temporary faculty are unaware that courses they teach satisfy a general education requirement with specific criteria. It may be that faculty with a long-term

relationship with the College are more willing to revise their courses to satisfy unique William & Mary requirements. Given the lower scores of the adjunct faculty, it would be undesirable for GER 3 teaching to fall predominantly on them. This is currently not happening. In the 1997-98 academic year, adjunct faculty taught about 25% of the GER 3 students (663 out of 2571), a higher proportion of students than they probably teach in the overall college curriculum, but not high enough to sound any alarms.

Upper division courses, because of their specialization, may be less suited to satisfying GER 3. In fact, however, upper division classes appear on balance to have slightly higher mean scores, as tabulated from student questionnaires (Table 5).

Summary. Taken together, portfolios and student questionnaires appear to provide adequate means of evaluating the extent to which GER 3 courses satisfy the purposes of GER 3. Both methods point to the same conclusion, that the GER 3 courses, with few exceptions, are in fact providing William & Mary students with the kind of social science background prescribed by the College's General Education Requirement.

Table 2: Summary of Student Responses to Questionnaires

<u>Questions with answers on scale of 1-5</u>	Mean for all courses [1]	Percent of courses w/ mean of:		
		4 & above [2]	3 & above [3]	2.5 & below [4]
To what extent has this course helped you understand:				
[a] subject areas addressed by social scientists	3.9	37%	97%	1%
[b] how social scientists do their work	3.5	9	89	1
[c] Review or critique research studies?	3.3	20	66	13
[d] Introduce social science theories?	3.8	26	97	0
[e] Link research to theory?	3.5	13	87	4
[f] Examine social phenomena or psychological phenomena or public policy issues? [Entry is highest of the three]	4.3	80	100	0
[g] Examine uses of social science approach?	3.7	14	96	0
[h] Develop skills in social science research?	3.3	8	81	8
<u>Yes/No Questions:</u>	Percent "Yes" for all courses	Percent of courses w/ "Yes" response of:		
[i] Discuss social science research methods?	82%	>75%	>50%	<25%
[j] Conduct empirical research?	51%	66%	91%	0%
		25%	59%	15%

Table 3: Mean Ratings for Each Item
Departments with More than 3 Courses Taught by at Least 3 Different Instructors

Department (classes; respondents)	Item #									
	Q1a	Q1b	Q2	Q5	Q6	Q7	Q8	Q9	Q3	Q4
Anthropology: (10; 581)	3.90	3.83	3.66	3.81	3.61	4.19	3.77	3.28	.92	.59
Economics: (15; 619)	3.75	3.32	2.47	3.74	3.09	4.23	3.50	3.26	.65	.41
Government: (8; 254)	4.07	3.37	3.15	4.02	3.39	4.54	3.73	3.65	.68	.57
Psychology: (16; 642)	3.88	3.67	3.77	3.88	3.77	4.40	3.65	3.21	.92	.41
Sociology: (14; 359)	3.81	3.39	3.25	3.70	3.41	4.22	3.64	3.31	.89	.59
Other (English, Kinesiology, Cross-listed courses) (11; 213)	3.76	3.35	3.36	3.62	3.67	4.16	3.68	3.41	.82	.68

Scale: 1=Great extent to 5=Not at all

- Q1a. To what extent has this course helped you to understand the subject areas and problems addressed by social scientists?
 Q1b. To what extent has this course helped you to understand how social scientists do their work?
 Q2. To what extent did you review and/or critique research studies?
 Q5. To what extent did this course introduce you to social science theories?
 Q6. To what extent did this course link empirical research to theory?
 Q7. To what extent did this course examine social or psychological phenomena, or public policy issues?
 Q8. To what extent did this course examine uses of a social science approach?
 Q9. Extent to which course helped you develop skills in social science research, analysis, and scholarship

Scores: No=0 Yes=1

- Q3. Were methods of social science research discussed in this course?
 Q4. Did you conduct empirical research (e.g., analysis of data, field observations, textual analysis?)

DISTRIBUTIONS BY RANK OF PROFESSOR

<p align="center">TABLE: 4 Mean Student Ratings by Rank of Professor (Scale: 1=Not at all to 5= Great extent)</p>		
GER 3 Questionnaire Items	Non-tenure Eligible (N=663)	Tenure Eligible (N=1,908)
1a. Extent to which course helped students understand subject areas and problems addressed by social scientists	3.74	3.88
1b. Extent to which course helped students understand how social scientists do their work	3.38	3.58
1. Extent to which students reviewed and/or critiqued research studies	2.98	3.40
5. Extent to which course introduced students to social science theories	3.65	3.86
6. Extent to which course linked empirical research to theory	3.35	3.54
7. Highest rating of 7a, 7b, and 7c (criteria specify "or" as a condition for GER designation)	4.26	4.29
Individual ratings for 7a, 7b, and 7c:		
7a. Extent to which course examined social phenomena	3.70	3.91
7b. Extent to which course examined psychological phenomena	3.36	3.25
7c. Extent to which course examined public policy issues	3.36	3.37
8. Extent to which course examined uses of social science approach	3.45	3.72
9. Extent to which course helped students develop skills in social science research, analysis, and scholarship (Spring only: N=1,193)	3.17	3.38
Percentage of affirmative responses:	Yes	Yes
2. Were methods of social science research discussed in this course?	73%	85%
3. Did you conduct empirical research?	47%	51%

DISTRIBUTIONS BY LEVEL OF INSTRUCTION

TABLE 5
Mean Ratings by Students in 100 to 400 Level Courses
(Scale: 1=Not at all to 5= Great extent)

GER 3 Questionnaire Items	100- 200 Level (N=1,751)	300-400 Level (N=843)
1a. Extent to which course helped students understand subject areas and problems addressed by social scientists	3.81	3.93
1b. Extent to which course helped students understand how social scientists do their work	3.52	3.56
1. Extent to which students reviewed and/or critiqued research studies	3.15	3.57
5. Extent to which course introduced students to social science theories	3.77	3.86
6. Extent to which course linked empirical research to theory	3.38	3.69
7. Highest rating of 7a, 7b, and 7c (criteria specify "or" as a condition for GER designation)	4.22	4.41
Individual ratings for 7a, 7b, and 7c:		
7a. Extent to which course examined social phenomena	3.84	3.89
7b. Extent to which course examined psychological phenomena	2.98	3.88
7c. Extent to which course examined public policy issues	3.46	3.21
8. Extent to which course examined uses of social science approach	3.61	3.72
9. Extent to which course helped students develop skills in social science research, analysis, and scholarship (Spring only: N=1,193)	3.27	3.41
Percentage of affirmative responses:	Yes	Yes
2. Were methods of social science research discussed in this course?	82%	82%
3. Did you conduct empirical research?	48%	56%