

Gen Ed Curriculum Mapping: Learning Objectives by Gen Ed Course Designations

In Spring 2008, the Office of Academic Planning and Assessment (OAPA) in collaboration with the Gen Ed Task Force (GETF) and Gen Ed Council, surveyed UMass Amherst instructors (excluding Graduate Student Instructors) who taught at least one Gen Ed course between Fall 2006 and Spring 2008. They were asked about their learning goals for their Gen Ed course(s) and their experiences teaching Gen Ed. The high response rate for this survey provides an indication of these instructors' commitment to Gen Ed and its improvement (see Table 1).

**Table 1. Spring 2008 Gen Ed Instructor Survey:
Response Rate by Instructor, Gen Ed Course, and Course Section**

	Total in Survey Sample	Number of Respondents	Response Rate
Instructors	514	318	62%
Gen Ed Courses	385	270	70%
Gen Ed Course Sections	893	525	59%

The first part of the survey focused on the extent to which instructors address each Gen Ed learning objective.¹ Instructors were asked whether they introduce students to the objective, ask students to practice the objective, or assess students' performance on the objective. Table 2 (next page) shows instructor responses organized by the Gen Ed designation(s) that their course fulfills. Cells highlighted in green indicate that 90% or more of courses in that designation address the objective. Yellow highlighting indicates that between 75% and 89% of courses address the objective. The Table also provides information about which objectives were less clear to instructors. The cells highlighted in red indicate that 10% or more of instructors selected "unsure," meaning that they were confused or lacked clarity about that objective.

The GETF reviewed these results to understand the extent to which the Gen Ed learning objectives are being addressed in the current Gen Ed program. It is not expected that all objectives will be addressed in courses across all designations. However there are three learning objectives that, according to the original Gen Ed legislation, should be common to all Gen Ed courses, regardless of designation. They are:

1. Understanding of the fundamental questions, ideas, and methods of analysis in the disciplines;
2. Application of these methods of analysis to real world problems and contexts;
3. Creative, analytical, quantitative, and critical thinking.

Instructor survey results suggest that the first and third of these are addressed in most (75% or more – the green and yellow cells) of the Gen Ed courses. It is important to point out that "Critical Thinking" essentially refers to a whole host of skills (i.e. Critical Thinking, Analytic Thinking, Inquiry, Problem Solving, and Synthesis), each of which is listed separately in Table 2. The smaller table (Table 3) at the bottom of the next page combines instructor responses to each of these skills to give another perspective on the emphasis on Critical Thinking in Gen Ed courses. When analyzed in this way, the results show that within all designations (except BS) at least 90% of instructors are addressing Critical Thinking skills in their Gen Ed courses.

The second objective, "Application of methods to real world problems and contexts," appears to receive less extensive coverage in Gen Ed courses. This suggests the need to better communicate the centrality of this objective to Gen Ed instructors and support them in their efforts to help students apply Gen Ed courses to real world problems and contexts.

¹ Note: the objectives referenced in the survey were drawn from a draft version of the Gen Ed Purpose Statement. Results from this survey were used to inform the revisions made to that draft. The final Gen Ed Purpose Statement was approved by the Faculty Senate Rules Committee in May 2009 (<http://www.umass.edu/gened/valueGenEd/learningObjectives.html>).

Table 2. Mapping Gen Ed Learning Objectives Across Gen Ed Courses (by Designation)
 Responses of Instructors Who Taught at Least One Gen Ed Course Between Fall 06 and Spring 08 (Graduate Student Instructors not Surveyed)

≥ 90% of instructors teaching courses in this designation report addressing this objective
≥ 75% to 89% of instructors teaching courses in this designation report addressing this objective
<75% of instructors teaching courses in this designation report addressing this objective
"Unsure" response for Objectives is ≥ 10% (indicates lack of clarity re. Objective definition)

		AL 51	AT 27	HS 57	SB 89	U 65	G 57	I 26	SI 5	BS 37	PS 48	R2 54
Number of Responses												
# Courses Surveyed		60	34	60	79	72	64	31	5	30	31	38
Courses Resp. Rate		70%	59%	68%	73%	74%	72%	65%	100%	70%	84%	66%
# Sections Surveyed		85	46	88	142	97	82	57	7	62	77	128
# Sections Responses		51	27	57	89	65	57	26	5	37	48	54
Surveyed Sections RR		60%	59%	65%	63%	67%	70%	46%	71%	60%	62%	42%
% of Total Course Sections with Survey Responses		44%	42%	52%	40%	41%	46%	27%	71%	50%	58%	26%
OBJECTIVE	# Sections not Surveyed	32	19	21	83	60	44	40	0	12	6	77
Fundamental questions, ideas, and methods of analysis in the discipline(s)	INTRODUCE	94%	100%	96%	97%	89%	95%	73%	80%	95%	100%	93%
	PRACTICE	84%	93%	82%	79%	78%	86%	77%	60%	57%	90%	96%
	ASSESS	78%	89%	75%	85%	75%	81%	65%	40%	78%	77%	93%
	UNSURE	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Application of these methods of analysis to real world problems and contexts	INTRODUCE	73%	81%	61%	94%	80%	77%	65%	60%	78%	92%	87%
	PRACTICE	67%	85%	46%	87%	88%	67%	81%	100%	54%	77%	85%
	ASSESS	49%	67%	37%	81%	69%	56%	58%	20%	65%	65%	69%
	UNSURE	6%	4%	5%	0%	0%	4%	0%	0%	3%	2%	0%
Creative Thinking	INTRODUCE	71%	81%	79%	70%	72%	68%	69%	20%	43%	69%	56%
	PRACTICE	82%	93%	72%	62%	71%	79%	85%	80%	38%	73%	57%
	ASSESS	65%	74%	61%	57%	57%	58%	58%	40%	24%	46%	39%
	UNSURE	6%	0%	4%	10%	8%	5%	4%	20%	19%	4%	13%
Analytical Thinking	INTRODUCE	78%	74%	84%	90%	85%	77%	69%	60%	70%	92%	91%
	PRACTICE	90%	96%	93%	87%	83%	96%	92%	100%	62%	98%	94%
	ASSESS	86%	85%	84%	83%	82%	86%	77%	40%	54%	83%	93%
	UNSURE	4%	0%	4%	0%	0%	0%	0%	0%	5%	0%	0%
Quantitative Thinking	INTRODUCE	4%	7%	11%	46%	38%	7%	35%	0%	65%	81%	83%
	PRACTICE	6%	11%	11%	34%	14%	11%	12%	0%	49%	94%	87%
	ASSESS	4%	11%	4%	25%	14%	7%	8%	0%	43%	85%	89%
	UNSURE	6%	4%	2%	6%	3%	9%	12%	20%	0%	0%	0%
Critical Thinking	INTRODUCE	80%	78%	91%	89%	86%	86%	81%	80%	78%	85%	65%
	PRACTICE	94%	96%	95%	88%	94%	91%	100%	100%	59%	85%	56%
	ASSESS	86%	89%	84%	79%	80%	86%	81%	20%	54%	69%	52%
	UNSURE	2%	0%	0%	3%	2%	2%	0%	0%	5%	0%	15%
Inquiry	INTRODUCE	69%	74%	68%	73%	71%	67%	65%	60%	68%	79%	50%
	PRACTICE	76%	78%	58%	69%	74%	67%	85%	40%	51%	73%	41%
	ASSESS	69%	63%	47%	54%	60%	54%	65%	0%	43%	44%	31%
	UNSURE	12%	0%	23%	13%	11%	18%	8%	0%	8%	13%	24%
Problem Solving	INTRODUCE	35%	59%	25%	64%	58%	40%	58%	60%	57%	88%	91%
	PRACTICE	29%	63%	16%	58%	54%	33%	69%	60%	49%	94%	96%
	ASSESS	29%	52%	12%	51%	40%	30%	38%	40%	46%	83%	93%
	UNSURE	16%	7%	16%	6%	11%	7%	12%	0%	0%	2%	0%
Synthesis	INTRODUCE	71%	70%	77%	71%	71%	72%	73%	80%	51%	75%	31%
	PRACTICE	76%	74%	75%	69%	82%	72%	100%	80%	46%	63%	28%
	ASSESS	67%	63%	74%	61%	69%	61%	65%	60%	38%	44%	30%
	UNSURE	8%	7%	11%	8%	6%	9%	0%	0%	14%	17%	26%
Pluralistic perspective-taking	INTRODUCE	69%	70%	82%	78%	85%	82%	85%	20%	32%	15%	6%
	PRACTICE	80%	63%	68%	70%	86%	81%	92%	80%	16%	2%	2%
	ASSESS	61%	56%	56%	58%	74%	61%	73%	40%	11%	4%	0%
	UNSURE	12%	7%	11%	9%	5%	5%	0%	0%	24%	44%	20%
Awareness of the relationship among culture, self, and others	INTRODUCE	78%	89%	86%	87%	92%	88%	88%	20%	43%	29%	4%
	PRACTICE	84%	81%	72%	70%	89%	81%	100%	60%	19%	2%	2%
	ASSESS	65%	59%	60%	66%	78%	63%	77%	60%	11%	0%	0%
	UNSURE	2%	0%	4%	3%	0%	4%	0%	40%	8%	4%	9%
Understanding and evaluating the consequences of one's choices and the implications of one's actions	INTRODUCE	43%	26%	42%	66%	62%	46%	69%	80%	51%	38%	13%
	PRACTICE	43%	26%	35%	51%	57%	37%	85%	80%	30%	19%	7%
	ASSESS	16%	26%	28%	43%	31%	26%	42%	40%	22%	8%	2%
	UNSURE	22%	22%	21%	7%	6%	18%	0%	0%	5%	21%	9%
Working with ambiguity and multiple perspectives	INTRODUCE	80%	67%	84%	87%	88%	82%	81%	80%	51%	46%	20%
	PRACTICE	90%	59%	77%	72%	82%	79%	92%	80%	43%	21%	15%
	ASSESS	73%	56%	72%	63%	69%	68%	73%	40%	32%	13%	13%
	UNSURE	0%	7%	4%	4%	0%	2%	0%	0%	0%	15%	19%
Communicating persuasively and effectively orally	INTRODUCE	53%	52%	42%	35%	54%	42%	54%	20%	32%	13%	15%
	PRACTICE	76%	52%	53%	35%	57%	54%	65%	20%	30%	13%	11%
	ASSESS	47%	33%	26%	18%	37%	26%	54%	20%	24%	2%	4%
	UNSURE	4%	4%	4%	2%	2%	5%	4%	0%	0%	8%	15%
Communicating persuasively and effectively in writing	INTRODUCE	71%	70%	75%	70%	72%	75%	69%	40%	51%	23%	43%
	PRACTICE	92%	85%	91%	73%	86%	93%	96%	80%	49%	40%	44%
	ASSESS	84%	78%	82%	69%	80%	86%	88%	80%	43%	23%	37%
	UNSURE	0%	0%	0%	4%	3%	0%	0%	0%	0%	10%	11%
Working effectively and collaboratively in groups	INTRODUCE	37%	33%	25%	42%	55%	30%	65%	20%	41%	42%	30%
	PRACTICE	47%	30%	28%	39%	55%	42%	62%	80%	49%	42%	35%
	ASSESS	25%	19%	16%	24%	31%	21%	46%	40%	27%	15%	9%
	UNSURE	10%	7%	7%	3%	3%	9%	4%	0%	0%	13%	17%
Working effectively and collaboratively with diverse groups	INTRODUCE	25%	26%	14%	34%	43%	26%	50%	60%	19%	8%	7%
	PRACTICE	31%	19%	12%	28%	48%	25%	50%	40%	24%	17%	6%
	ASSESS	16%	11%	9%	12%	23%	16%	38%	20%	11%	4%	0%
	UNSURE	20%	11%	16%	9%	6%	16%	4%	20%	5%	27%	13%
Developing information literacy	INTRODUCE	35%	52%	54%	55%	51%	53%	77%	80%	81%	67%	50%
	PRACTICE	45%	52%	58%	39%	48%	51%	73%	60%	59%	48%	52%
	ASSESS	33%	41%	49%	30%	42%	35%	62%	20%	41%	33%	44%
	UNSURE	20%	22%	7%	19%	17%	18%	8%	0%	0%	6%	9%
Developing technological literacy	INTRODUCE	16%	37%	23%	36%	31%	25%	50%	20%	57%	77%	52%
	PRACTICE	18%	37%	14%	22%	25%	26%	54%	20%	41%	58%	52%
	ASSESS	14%	26%	9%	20%	18%	14%	35%	0%	24%	48%	41%
	UNSURE	6%	7%	7%	11%	11%	11%	15%	20%	3%	0%	9%

Table 3. Results when various higher-order thinking skills often associated with "Critical Thinking" are combined.

		AL	AT	HS	SB	U	G	I	SI	BS	PS	R2
Critical Thinking (includes Analytic Thinking, Inquiry, Problem Solving, & Synthesis)	INTRODUCE	84%	85%	93%	96%	91%	90%	85%	80%	84%	96%	93%
	PRACTICE	100%	100%	97%	96%	99%	98%	100%	100%	76%	100%	96%
	ASSESS	90%	93%	90%	91%	89%	91%	81%	80%	70%	92%	96%
	UNSURE	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%