

**GENERAL EDUCATION AT SUNY OSWEGO**  
**A Report from the**  
**Task Force on Designing General Education for the 21<sup>st</sup> Century**

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**Committee Members**

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**1. GE21 Task Force: Purpose, Elections & Appointments, and Background**

On July 1, 2010 The State University of New York modified its General Education Requirement. In response to this modification, and building on work done by the General Education Visioning Task Force, the Faculty Assembly at SUNY Oswego created the *Task Force on Designing General Education for the 21<sup>st</sup> Century* (GE 21) on November 1, 2010. The task force is composed of eleven members: four elected by the Faculty Assembly from the faculty and professional staff, four designees appointed by the Interim Provost, two members elected from among members of the General Education Council, and one student selected by Student Association. After the elections and appointments were completed, the Task Force met on December 7, 2010 to review its charge and to begin its deliberations. David Valentino was elected co-chair on December 7<sup>th</sup> by the elected representatives on the task force; Fehmi Damkaci was appointed by the Interim Provost to co-chair the group. Roger Brooks was elected by members of this task force to be the Faculty Assembly reporter.

The Task Force has been given a three-part charge:

1. Examine our current general education program and bring the campus up to date on the assessment of general education by reviewing course and program assessments in recent years;
2. Identify student knowledge, competencies and attributes to be gained. Develop clear attributes and goals for a redesigned general education program at SUNY Oswego that will enhance academic excellence and student success. Solicit input and ideas for general education revision from the General Education Council, departments, faculty, students, staff, administration, and alumni.
3. Based on consultation and deliberation, forward one or more plans for general education reform to the campus community for approval through the formal curriculum revision process.

This report addresses the first part of the charge. It is the result of deliberations by the Task Force in meetings held on January 24<sup>th</sup>, January 31<sup>st</sup>, February 7<sup>th</sup>, February 14<sup>th</sup> and February 21<sup>st</sup> of this year.

*Some Background:* Since the late 1990s SUNY Oswego has been participating in both local and system-wide routine revisions of General Education. The current General Education program at SUNY Oswego was shaped by the need to adopt the ten general education categories and two general education competencies mandated by SUNY System Administration shortly after Oswego's [Gen Ed '98](#) was crafted. (The structure of GE '98 introduced the categories of "Knowledge Foundations" and "Intellectual Issues" into Oswego's General Education curriculum, while it also preserved Oswego's long-standing commitment to courses in human diversity.) Maintaining the underlying principle that a liberal education provides the student with knowledge in breadth to complement the in-depth knowledge she or he acquires in a major, Oswego's faculty merged Gen Ed '98 and System's 10+2 requirements in order to "introduce students to a range of academic disciplines; teach them to think critically; solve problems; communicate effectively; increase their knowledge of the world and of themselves; and help them grow and mature as learners" (2010-2011 *Undergraduate Catalog* 189). From the late 1990s until the present the faculty at Oswego have also labored to maintain the "signature elements" of our general education program: including courses about tolerance and intolerance in the United States, courses about human diversity, and upper-division courses about interdisciplinary intellectual issues. During the last several years SUNY Oswego has continued to modify [GE 2000](#) (see [Appendix A](#)), most notably with (a) the infusion of critical thinking into each major and (b) the infusion of information literacy into the computer literacy category. However, the basic structure of general education created in 1998 has remained the same. In the fall of 2010, the *Task Force on Re-creating General Education* submitted its Final Report to the Faculty Assembly (See [Appendix D](#)). That task force was not charged with making recommendations for a reformed General Education curriculum. Instead, its final report discussed learning outcomes and identified about twelve "best practices," including some that are currently found on our campus as well as in other universities. Beginning where the previous task force left off, *GE 21 Designing General Education for the 21<sup>st</sup> Century* now begins a campus-wide conversation about (1) why SUNY Oswego may need to design a different approach to its local General Education program, while (2) faculty, administrators, and students explore with each other various re-designed curriculum models that may both preserve and enhance SUNY Oswego's commitment to General Education in the pursuit of learning.

## **2. The Purpose of These Reports**

The GE 21 Task Force will write several reports to promote dialogue among the many constituencies involved with General Education at SUNY Oswego. And healthy conversations require that different points of view are adequately and accurately considered in a fair and open manner. While thinking about General Education reform, the Task Force requests that our campus community takes into consideration both internal and external factors that influence General Education at SUNY Oswego. From one perspective universities are ideal places where sound ideas are seemingly given the freedom they need to flourish; however, these ideas must also compete for attention as they develop in ways that often conflict with each other. The university is also a place where many stakeholders compete separately and in groups for attention and resources, both within disciplines and across disciplinary boundaries. Intellectual factors confront sociological ones; while both of these concerns answer to real economic realities and the habitual practices that shape both the larger society with its deeply contested political, economic, and cultural values and expectations. Within the State University of New York these dynamics

are often complicated by the simple fact that any one campus is often caught up in patterns of both cooperation and competition with other SUNY units while they simultaneously compete with universities in New York State, the United States, and the rest of the world. Successful reform of General Education at SUNY Oswego will need to address these competing and complex perspectives at varying levels of specificity.

In these reports the Task Force would like to foreground (i) the unique aspects of our program at SUNY Oswego, while (ii) illuminating how it might appear from the perspectives of (a) possible first year applicants, their parents, and transfer students, as well as international and non-traditional students, (b) students who are enrolled and making their way toward graduation, (c) faculty who are dedicated to teaching both within a general education program as well as in their disciplinary expertise in the arts and sciences, business and education, or communication, media, and the fine arts, (d) administrators who, while working to realize the goals set forth in the Sesquicentennial Plan, are concerned with SUNY student mobility issues, with shifting demographics, with maintaining a strong student profile, and with developing dynamic, local academic and residential programs in light of larger, state-wide SUNY initiatives, and finally (e) business, government, and educational leaders, as well as students and their families, who are increasingly interested in cutting the cost of higher education while maintaining, as well as enhancing, the quality of that education within the traditional four-year college experience. Successful reform will need to be alert to a multiplicity of perspectives. The most ideal of plans may not be possible to deliver because of real restrictions and resource limitations; nevertheless, resource problems should not prevent advances in the design and implementation of an intellectually rigorous and efficient general education program.

The members of this Task Force will attempt to represent their various subdivisions, colleges, schools, and other constituencies, while each member will bring his or her own best thinking to bear upon the discussion. In order to facilitate this reform process, the Task Force membership requests that department chairs and program directors, as well as Faculty Assembly representatives, individual faculty members, students, and administrators, communicate their thoughts and concerns with members of the Task Force. Each of the reports produced by this Task Force will be written with the intention of assisting with these conversations. In order for the process to work well, therefore, members of the Task Force are asking for your written or spoken comments about each of the reports we will generate. (Please note: [see the link](#) near the end of this document if you wish to submit your comments electronically.)

Faculty Assembly representatives and department chairs are asked to guarantee that these documents are distributed and discussed in department meetings in a timely manner. We ask department chairs or their representatives to send us summaries of their discussions whenever possible. Student representatives to the Student Association should also do their best to gather responses and contributions from the students they represent. Faculty, staff, and students who have alumni connections are encouraged to raise the questions and ideas that surface in our reports with their constituencies as well and to share those conversations with the Task Force.

### 3. Beginning the Conversation

When the SUNY system recently modified its General Education requirement in July 2010, it created new opportunities to simplify and restructure SUNY Oswego's local program which has been struggling for the last decade to reconcile a sound pedagogical and curricular vision with often ideologically driven state mandates. During the last decade many external pressures (especially economic ones) upon higher education have intensified. With every passing year the cost of higher education increases, while high schools and community colleges do their best to prepare students for admission into four-year colleges by providing students with opportunities to accumulate increasing levels of college credit. In this context the 122-128 credit hours that were once typically restricted to one's college experience of acquiring bachelor of arts and bachelor of science degrees in four years are targeted by various kinds of alternative programs that ultimately reduce the contact hours that undergraduates may have with university professors. (For example, on average each first year student at Oswego *begins* his or her studies with 6 of the required 122 credit hours already completed. Some students will have completed as many as 12 or 15 credit hours.) In this context some disciplines may often feel the need to increase the number of credit hours they require for successful completion of an undergraduate major. At the same time many students are apparently taking perhaps too long to graduate, especially if they change majors, transfer from one college to another, or wish to acquire skills in diverse subject and skill areas.

In this context the question becomes: *Is it possible to design a General Education program that is intellectually rigorous (and of significant historical and cultural as well as mathematical and scientific breadth) that can be completed efficiently and effectively within an eight semester cycle or its equivalent?*

#### 3.1 General Education Credit Hours: A Comparative Table

Table 1 provides a side-by-side comparison of Oswego's current General Education program and the SUNY System's General Education Requirements in both 2000 and 2010. This table demonstrates how the expectations from SUNY System Administration in 2010 have become more flexible with respect to the required category distribution. It is also illustrates to what extent Oswego's current General Education requirements currently exceed the 30 hour minimum required by SUNY GE. On average it appears that the number of required General Education credits at Oswego currently exceeds the system wide requirement by about five or perhaps seven courses—the equivalent of one semester's work or more. From the perspective of SUNY GE 2010, the Oswego program now appears rather inflexible and, so to speak, credit heavy. Appearances, however, can be deceiving. On Oswego's campus many major programs allow students to take courses which satisfy both major and General Education requirements. Moreover, Oswego's General Education credit hours might also be reduced through exemptions and infusions (see [Table 2](#)).

### 3.2 The Assessment of General Education

Course and program assessment (as well as curriculum development) has a long history on the SUNY Oswego campus. Even before the introduction of departmental and programmatic self-studies about fifteen years ago, curriculum revision was commonplace. With the emergence of **Table 1**. Comparison of SUNY Oswego, SUNY GE 2000, and SUNY GE 2010 requirements.

	A. GE Categories	B. Oswego Credit Hours	C. SUNY GE 2000	D. SUNY GE 2010
1	Mathematics	3 hrs	3 hrs	3hrs
2	Natural Sciences	6 hrs	3 hrs	Choose any five out of eight categories (#2 -> #9)  15 hrs
3	Social and Behavioral Sciences	6 hrs	3 hrs	
4	American History	3 hrs	3 hrs	
5	Western Civilization	3 hrs	3 hrs	
6	Non-Western Civilizations	3 hrs	3 hrs	
7	Humanities	3 hrs	3 hrs	
8	Fine and Performing Arts	3 hrs	3 hrs	
9	Foreign Language	6 hrs *	3 hrs	
10	Writing (Communication)	3 hrs	3 hrs	
11	Critical Thinking (competency)	Proficiency (infused)	Proficiency	Proficiency
12	Computer Literacy (competency)	3 hrs	Proficiency	Proficiency
13	Tolerance and Intolerance	3 hrs	NONE	NONE
14	Intellectual Issues	6 hrs	NONE	NONE
	<b>TOTAL (NO exemption)</b>	<b>51 hrs</b>	<b>30 hrs</b>	<b>21 hrs + 9 hrs = 30 hrs</b>
	<b>Actual TOTAL (w/major exemptions)</b>	<b>33-48 hrs (aver: 42 hrs)</b>	<b>30 hrs</b>	<b>30 hrs</b>
<p>Any credits earned in high school and courses which also count towards majors may impact all three requirements and will lower the actual totals further.</p> <p>* Satisfied by high school study of another language through Regents level 4; high school study of two other languages (through level 2 in each) or completion of a 102-level college language course or equivalent.</p>				

**Table 2.** SUNY Oswego general education exemptions by major. The minimum hours calculated by subtracting exemption hours from total required (51 hours, see Table 1). These numbers may be reduced case-by-case with 1- high school foreign language exemptions, 2- double-dipping in general education courses, 3- taking general education courses which may also fulfill major requirements.

MAJOR	GE EXEMPTION/INFUSION	Min. Hrs
Accounting	Social & Behavioral	45
Adolescence Education (7-12)	Social & Behavioral and Concentration and HD--TIUS The following Adolescence Education concentrations also have Computer and Information Literacy infused: Chemistry, Earth Sciences, Physics	33
American Studies	Humanities	48
Anthropology	Social & Behavioral	45
Art	Fine & Performing Arts and Humanities Art B.A. and B.F.A. also fulfill Computer and Information Literacy via coursework in the major/minor	42
Biochemistry	Natural Sciences and Computer and Information Literacy	42
Biology	Natural Sciences	45
Broadcasting & Mass Comm.	Social and Behavioral	45
Business Administration	Social and Behavioral	45
Business/Marketing Educ.	Social and Behavioral	45
Chemistry	Natural Sciences and Computer and Information Literacy	42
Childhood Education (1-6)	Social & Behavioral and Concentration and HD--TIUS	36
Cognitive Science	Social and Behavioral	45
Communication Studies	Social and Behavioral	45
Computer Science	Math and Computer & Information Literacy	45
Economics	Social and Behavioral	45
English	Humanities	48
English Writing Arts	Fine & Performing Arts and Humanities	45
Finance	Social and Behavioral	45
Geochemistry	Natural Sciences	45
Geology	Natural Sciences and Computer and Information Literacy	42
Global and Inter. Studies	Social and Behavioral	45
Graphic Design	Fine & Performing Arts and Humanities and Computer & Information Literacy	42
History	Humanities	48
Human Development	Social and Behavioral	45
Human Resource Management	Social and Behavioral	45
Information Science	Math	48
Journalism	Social and Behavioral	45
Language and Intern. Trade	Humanities	48
Linguistics	Social and Behavioral	45
Management Accounting	Social and Behavioral	45

Management Science	Social and Behavioral	45
Marketing	Social and Behavioral	45
Mathematical Economics,	Math and Social and Behavioral	42
Mathematics	Math	48
Mathematics, Applied	Math	48
Meteorology	Natural Sciences and Computer and Information Literacy	42
Modern Languages	Humanities	48
Music	Fine & Performing Arts and Humanities	45
Philosophy	Humanities	48
Philosophy-Psychology	Humanities and Social and Behavioral	42
Physics	Natural Sciences and Computer and Information Literacy	42
Political Science	Social and Behavioral	45
Psychology	Social and Behavioral	45
Public Justice	Social and Behavioral	45
Public Relations	Social and Behavioral	45
Sociology	Social and Behavioral	45
TESOL	Social and Behavioral and Concentration and HD--TIUS	36
Technology Education	Social and Behavioral	45
Technology Management	Math	48
Theatre	Fine & Performing Arts	48
Vocational Teacher Prep.	Social and Behavioral	45
Women's Studies	Social and Behavioral	45
Zoology	Natural Sciences	45
Wellness Management	Social and Behavioral	45
<b>AVERAGE</b>		<b>42.2</b>

the assessment movement and with the inclusion of assessment procedures in accreditation expectations, however, Oswego's way of conducting curriculum revisions has been gradually adapting to different ways of conducting assessment reviews and program development, while finding ways to preserve its own unique approach, identity, and voice. In departmental and administrative offices there are many self-studies which speak at least in part to the assessment of General Education. Moreover, individual faculty members as well as teams of faculty (sponsored for example by the Center for Excellence in Learning and Teaching) have been engaged in various kinds of course and program assessment for many years. However, our campus has not yet established an organized, central archive where all of these materials can be found and efficiently studied, although the members of the Faculty Assembly and the administration are in the preliminary stages of creating a proposal for a curriculum management system. Therefore, the Task Force at the time of this report has taken a preliminary look at only some of the assessment data that has been produced at Oswego during the last few years. As the conversation about General Education 21 unfolds, the Task Force will continue to integrate emerging (and ongoing) assessment data and other related documents into its deliberations. The diffuse nature of this assessment data is yet another reason for holding a carefully focused conversation about General Education. There is much local knowledge dispersed among students, faculty, staff, and administrators. By sharing our various perspectives (and perhaps by making our own focused reports available to others), we might arrive at a more adequate understanding of our curriculum's strengths and weaknesses, about its promise and its potential.

Since at least 2003 SUNY Oswego has conducted regular assessments of student learning in the General Education categories. Relative to assessment, the objectives of General Education, as described in the SUNY Oswego assessment summary (2004), are to (a) introduce students to a range of academic disciplines; (b) teach them to think critically and solve problems; (c) teach them to communicate effectively; (d) increase their knowledge of the world and themselves; and (e) help them grow and mature as learners. Cumulative results of these assessments were presented in the *General Education and Student Learning Reports* from 2003 through 2009. For the purposes of this report Task Force members compiled data for the various categories from those reports (Table 3). These reports only address student learning outcomes associated with the SUNY-GE requirements. Assessment of General Education requirements that only pertain to SUNY Oswego (Tolerance and Intolerance in the U.S. & Intellectual Issues) were reported separately. Both are summarized below (Table 4). The specific learning outcomes for SUNY-GE components can be found in [Appendix B](#). Table 3 summarizes the assessment results for learning outcomes in Knowledge and Skills Areas that have been underway since 2003.

**Table 3.** Summary of the General Education assessment results. The reported values are the sum of the percentage of assessed students that met or exceeded the learning outcome (L.O.). For categories that have been assessed more than one time, the change over time is shown in the right column ( $\Delta$ ).

Knowledge/Skills Areas	L.O.	2003	2004	2005	2006	2007	2008	2009	$\Delta$
<b>Mathematics</b>	1	100.0							
	2	77.2							
<b>Natural Sciences</b>	1		90.5			84.0			-6.5
	2		72.5			71.0			-1.5
<b>Social Sciences</b>	1		70.3			68.0			-2.3
	2		76.8			88.0			11.2
<b>American History</b>	1	76.6							
	2	82.0							
	3	77.6							
<b>Western Civilizations</b>	1			76.0			83.0		7.0
	2			79.2			91.0		11.8
<b>Other World Civilizations</b>	1			61.9			80.0		18.1
<b>Humanities</b>	1			82.5			81.0		-1.5
<b>Arts</b>	1	89.1							
<b>Foreign Language</b>	1			89.0			91.0		2.0
	2			83.6			86.0		2.4
<b>Basic Communication</b>	1	90.0						71.0	-19.0
	2	71.0						57.5	-13.5
	3	60.0						53.6	-6.4
<b>Critical Thinking</b>	1		77.3			61.0			-16.3
	2		71.6			37.0			-34.6
<b>Information Management</b>	1		88.7			87			-1.7
	2		84.7			96.0			11.3
	3		72.1			80.0			7.9

The learning outcomes for Mathematics, Art and American History were assessed once, and all other categories were assessed twice on what appears to be a three year schedule. For learning outcomes assessed more than one time, the last column ( $\Delta$ ) in Table 3 was added in this document just to illustrate difference between the overall assessment values. Ten of the eighteen learning outcomes that were assessed twice show a negative change, or decrease in the percentage of students meeting or exceeding the standard, with marked changes (13.5% - 34.6%) in learning outcomes for Basic Communication (L.O. 1 & 2) and Critical Thinking (L.O. 1 & 2). Additionally, the categories of Social Sciences (L.O. 2), Western Civilizations (L.O. 2), Other World Civilizations (L.O. 1), and Information Management (L.O. 2) all showed substantial positive assessment differences (11.2% - 18.1%). Respectively, there are two and three learning outcomes that were assessed for Tolerance and Intolerance in the United States (2008-2009) and Intellectual Issues (2009-2010). The percentage of students that were found to be either meeting or exceeding the standards for each learning outcome is provided in Table 4.

Data included in Tables 3 and 4 were supplied to the General Education Task Force from existing reports. As a committee we felt it necessary to identify and address what we consider to be severe statistical limitations with the information, and that the limitations were severe enough that we caution individuals against drawing definitive conclusions based on that data (See [Appendix C](#)).

**Table 4.** Assessment summary for SUNY Oswego General Education requirements, Tolerance and Intolerance in the United States and Intellectual Issues. The reported values are the sum of the percentage of assessed students that met or exceeded the learning outcome.

<b>Tolerance and Intolerance in the United States</b>	<b>Fall 2008</b>	<b>Spring 2009</b>
Demonstrate knowledge of diversity and difference in American life and an understanding of the dynamic relationships within and between groups of people in the U.S.	82.9	87.1
Show an awareness of the ways tolerance and intolerance shape the Nation and its people.	83.3	86.5
<b>Intellectual Issues</b>	<b>A.Y. '09-'10</b>	
Students will identify, analyze, and evaluate a given issue from a multidisciplinary perspective.	85.3	
Students will produce well-reasoned expressions on the role ideas and actions play in shaping culture and society.	88.4	
Students will use natural science principles to explore the interactions among science, technology, and society.	91.3	

### *3.3 The Scientific and Quantitative Literacy Study*

In addition to the assessment of General Education discussed above, the Scientific and Quantitative Literacy (SQL) committee examined SQL at SUNY Oswego during the 2009-2010 academic year. As a pilot study, the Lawson (2000) classroom test of scientific reasoning (plus items specific to mathematics) was administered on a voluntary basis in Physics 101, Physics 213, Physics 436 and Education 430, in addition to a group of voluntary undergraduate students

recruited throughout the university, totaling 205 participants from 62 different majors. The details of the pilot study were presented in the SQL final report of May 2010. Tentative conclusions about the SQL study include: (a) students in sciences and mathematics had better performance on the SQL test; (b) caution should be used when interpreting the test results because the student sample was not random; (c) although some majors performed better than others, there was no statistical difference between the test outcome for freshmen and seniors, and since the results lacked academic level significance there may be implications for general education; (d) participating female students performed slightly lower than male students; and (e) the pilot study did not include a sufficient number of questions directed exclusively at quantitative literacy.

### *3.4 Some Preliminary Reflections*

The data from these various assessment initiatives are suggestive but wholly inconclusive, imprecise, and possibly somewhat meaningless. However, these initiatives are a place from which we can begin. The specific faculty members who have been involved with each General Education assessment have changed over the years, and the criteria used at any particular time may also have become either *more* or *less* self-conscious and rigorous. Perhaps the data suggest that there has been some decline in basic communication and critical thinking, while the areas with the greatest change *might* also suggest that infusion is not working well. These are testable hypotheses around which more rigorous (or at least more adequate) standards of measurement and assessment might be created. However, no conclusions can be drawn from the current documents. Part of the conversation that we may wish to have, while we work toward designing general education for the twenty-first century, might be to work on developing testable hypotheses. Some learning, however, may not be testable, because not all questions can have closed, finite, or verifiable answers. Indeed sometimes the most compelling questions often require open-ended, speculative, and imaginative responses. So, we also need to have a conversation about how a General Education program might assist students with the complex contradictions involved with those kinds of learning that (sometimes simultaneously) seek and require correctness and precision as well as ambiguity and vagueness. For these reasons formulating the questions that we need to ask while designing General Education for the twenty-first century is not a simple matter, since the questions themselves are often full of troubled assumptions and hidden traps which might privilege one way of thinking over another, or one disciplinary regimen at the expense of more diverse practices. Therefore, we need to have a conversation about the questions themselves. How shall they be phrased? How might they be answered?

## **4. Beginning to Phrase Questions**

### *4.1 Advantages*

General Education at SUNY Oswego is unique for a number of reasons. (1) Our institution has a long-standing commitment to address questions concerning tolerance and intolerance in the United States. (2) Our current program also has demanding requirements in the natural, social and behavioral sciences, as well as in modern (or foreign) languages. (3) And, unlike many other

programs, General Education at SUNY Oswego currently requires interdisciplinary work at the upper-division level in both the natural sciences and the humanities and social sciences. To accommodate these distinctive expectations, Oswego's General Education program has found dynamic ways of integrating courses in major degree programs with course offerings in General Education. By "double-dipping," each student is often able to take courses which satisfy requirements in both the General Education program as well as in his or her major. For this reason it is often difficult to determine (or to indicate in a table) exactly how many credit hours for each student are exclusively dedicated to satisfying a general education requirement. The available assessment data make it difficult to tell not only if these distinctive features of Oswego's General Education program are successful but also to discern what success might mean—although the results registered in Table 4 are promising.

#### *4.2 Disadvantages*

These distinct advantages to Oswego's General Education program also have some disadvantages and unintended consequences. Students who complete all of their college work at Oswego often have difficulty finishing a second major or a minor program because the combination of major requirements and general education allow little room for exploration in depth among other disciplinary areas. Transfer students, especially those who change their major, also are confronted by the economic pressures to graduate within four years, on one hand, with the need to complete all of their upper-division requirements, while at times they must enroll in lower-division courses to complete other general education expectations. Having completed a degree at a community college, they are sometimes frustrated when they learn that they have not yet fully satisfied a requirement which they believed they had passed. For many it is an emotional setback that affects their desire to study. International students often experience radical cultural differences in our American attitudes towards education, and the design of the general education curriculum is not easily grasped nor is it clearly explained in any substantive way on Oswego's web pages or print catalogs. It is bureaucratically presented and not easily connected to either pedagogy or knowledge domains.

#### *4.3 Next Steps*

Later this semester the Task Force plans to sponsor workshops and other events (such as polls and focus groups) designed to promote a conversation about learning, teaching, and the purpose of the General Education program at SUNY Oswego. The responses that surface in reaction to this document will in part assist us in shaping those next events. The questions below are intended to promote discussion. If they seem to imply a choice that might be configured in some other way, please suggest alternatives in your answers.

The following questions are only a sample of some of the areas the committee anticipates will be discussed in our next phase of general education reform. They are intended only as a starting point for discussions throughout the campus community. Please suggest alternative questions, if you wish. We look forward to input, views and additional questions to consider from all as we move into the next phase of our charge. Your responses to these questions will help the Task Force to construct the surveys and focus groups that will follow. You may discuss these questions by following this link:

<https://www.oswego.edu/~dvalenti/ge21> (Laker Apps sign in required)

1. What advantages do you see to Oswego's current General Education program? What disadvantages do you see?
2. Should academic needs and values override economic needs and financial limitations in the design of GE 21? Or should the need to help students graduate within about eight semesters be given more weight in the design and implementation of a GE 21 curriculum?
3. Is it better to offer an efficient and minimal GE 21 that focuses upon writing, reading, and math skills, or a curriculum with an emphasis upon basic skills, an advanced interdisciplinary focus, and significant multi-cultural experiences?
4. Should transfer students be required to complete all local General Education requirements? Or should Oswego's program allow for transfer students to have alternate models for General Education? Should transfer students who have completed an associate's degree, which satisfies the SUNY System requirements, simply be considered as having completed the General Education requirement?
5. To what extent should GE 21 integrate (or require) opportunities for international education, join student/faculty research projects, co-operative learning, and internships?
6. How might the design of GE 21 promote research and publication, interdisciplinary exploration, and intellectual achievements of the highest order? Should this research be conducted in partnerships with students and faculty, or should student research and faculty research proceed according to separate tracks when necessary, while the results of that scholarship are integrated as fully as possible into the General Education curriculum?
7. To what extent should the GE21 Task Force explore innovations in creating curricular opportunities that focus on the following initiatives: first year and capstone courses, partnerships with Student Affairs and International Education, the use of electronic portfolios and integrative clusters, the development of both local and global community service projects, and other innovative pedagogical initiatives?
8. If you have other comments or questions about General Education, please share them through the online form that is linked above.

## **Appendix A: General Education at SUNY Oswego**

### Credit Hours

#### **BASIC SKILLS REQUIREMENTS 0-6**

Students are required to show competence (by passing an approved course or waiver exam) in each of the following:

1. Writing 0-3
2. Computer and Information Literacy 0-3
3. Critical Thinking: Infused in the major; students should contact major department and advisor for details.

#### **FOREIGN LANGUAGE 0-6**

4. See Note 1 below.

#### **KNOWLEDGE FOUNDATIONS REQUIREMENTS 12-21**

Students are required to take one or two approved courses (as indicated) in each area:

5. Fine and Performing Arts 3
6. Humanities 3
7. Mathematics (see Note 2 below) 3
8. Natural Sciences (see Note 3 below) 6
9. Social and Behavioral Sciences 6

#### **AMERICA AND THE WESTERN HERITAGE 6**

Students are required to take 1 approved course in each area:

10. American History (see Note 4 below) 3
11. Western Civilization 3

#### **HUMAN DIVERSITY 6**

Students are required to take one approved course in each area:

12. Tolerance and Intolerance in the United States (see Note 4 below) 3
13. Non-Western Civilizations 3

#### **INTELLECTUAL ISSUES 6**

Students are required to take one approved course in:

14. Explorations in the Natural Sciences and one approved course in either: 3
- 15a. Cultures and Civilizations—OR—15b. Self and Society 3

#### **ADVANCED EXPOSITORY WRITING AND ORAL PROFICIENCY**

Students must take five courses approved by their major department that emphasize training in writing and research skills appropriate to the major discipline. Students must develop skills in oral communication as well (see major department's writing and oral communication plans for details). These requirements may be satisfied with courses that meet other general education or major requirements.

Notes:

1 This requirement can be satisfied by a) successful high school study of a foreign language through Regents Level 4; b) successful high school study of two foreign languages (through Regents Level 2 in each); or c) completion of a 102-level foreign language course (or its equivalent) in college. Students must demonstrate basic competency in a language by successfully completing either a 101-level college foreign language course or three years of foreign language study in high school prior to registering for a 102-level college course in the same foreign language. The requirement may be satisfied by an equivalent proficiency in a Native American language, as demonstrated by comparable high school study (i.e. four years) or by an interview with a faculty member competent in the language in question. Non-native-English-speaking international students who have passed the Test of English as a Foreign Language (TOEFL) exam upon acceptance to the College are exempted from this requirement.

2 Students must demonstrate basic competency in mathematics prior to registering for Math courses numbered 106/206. Competency may be demonstrated by a) passing mathematics competency exam approved by the Mathematics Department; or b) successful completion of MAX 105.

3 In Natural Sciences, students must take courses from two different departments (Biological Sciences, Chemistry, Earth Sciences, or Physics). In Social and Behavioral Sciences, students must take courses from two different disciplines. The total number of hours is given as 12-21 instead of 21 because the nature of the course work required of students to fulfill certain majors infuses a level of skills, competency, and/or general knowledge beyond what is needed to satisfy General Education. In those cases, students are considered to be exempt from particular General Education components. A list of exemptions by major is available at the website, [www.oswego.edu/gened](http://www.oswego.edu/gened). The student who completes a minor is credited with having satisfied three hours of the requirement in the area of the minor.

4 No course satisfying the American History requirement will at the same time satisfy the Tolerance and Intolerance in the United States requirement (in Human Diversity).

GENERAL EDUCATION COURSES CANNOT BE TAKEN PASS-FAIL. UNLESS OTHERWISE NOTED, ONE COURSE CAN BE TAKEN TO SATISFY TWO OR MORE DIFFERENT REQUIREMENTS, AS LONG AS IT IS OFFICIALLY APPROVED FOR THOSE REQUIREMENTS. GENERAL EDUCATION COURSES (WITH THE EXCEPTION OF INTELLECTUAL ISSUES) CAN BE TAKEN OFF-CAMPUS, AS LONG AS APPROVAL IS SECURED IN ADVANCE.

## **Appendix B. SUNY-GE Learning Outcomes.**

### **Mathematics**

Students will demonstrate the ability to use:

- 1) Arithmetic, Algebra, Geometry.
- 2) Data analysis, Quantitative reasoning.

### **Natural Sciences**

Students will demonstrate:

- 1) Understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis.
- 2) Application of scientific data, concepts, and models in one of the natural sciences.

### **Social Sciences**

Students will demonstrate:

- 1) Understanding of the methods social scientists use to explore social phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical and interpretive analysis.
- 2) Knowledge of major concepts, models and issues of at least one discipline in the social sciences.

### **American History**

Students will demonstrate:

- 1) Knowledge of a basic narrative of American history: political, economic, social, and cultural, including knowledge of unity and diversity in American society.
- 2) Knowledge of common institutions in American society and how they have affected different groups.
- 3) Understanding of America's evolving relationship with the rest of the world.

### **Western Civilizations**

Students will demonstrate:

- 1) Knowledge of the development of the distinctive features of the history, institutions, economy, society, culture, etc, of Western civilization.
- 2) Relate the development of Western civilization to that of other regions of the world.

### **Other World Civilizations**

Students will demonstrate:

- 1) Knowledge of either a broad outline of world history, or
- 2) The distinctive features of the history, institutions, economy, society, culture, etc., of one non-Western civilization.

**Humanities**

Students will demonstrate knowledge of the conventions and methods of at least one of the humanities in addition to those encompassed by other knowledge areas required by the General Education program.

**The Arts**

Students will demonstrate understanding of at least one principal form of artistic expression and the creative process inherent therein.

**Foreign Language**

Students will demonstrate:

- 1) Basic proficiency in the understanding and use of a foreign language.
- 2) Knowledge of the distinctive features of culture(s) associated with the language they are studying.

**Basic Communication**

Students will:

- 1) Produce coherent texts with common college-level written forms.
- 2) Demonstrate the ability to revise and improve such texts.
- 3) Research a topic, develop an argument, and organize supporting details.
- 4) Develop proficiency in oral discourse.
- 5) Evaluate an oral presentation according to established criteria.

**Critical Thinking**

Students will:

- 1) Identify, analyze, and evaluate arguments as they occur in their own or others' work;
- 2) Develop well-reasoned arguments.

**Information Management**

Students will:

- 1) Perform the basic operations of personal computer use.
- 2) Understand and use basic research techniques.
- 3) Locate, evaluate and synthesize information from a variety of sources.

### **Appendix C. Statistical limitations to the information presented in Section 3.2.**

In Table 3, difference scores (i.e.  $\Delta$ ) are used to show differences in the assessment of learning outcomes between time periods. The use of a difference score to demonstrate a positive or negative performance shift is statistically unsound. It is interesting to note that the practice of reporting difference scores does not take into account standard deviations, distribution of data (e.g., normal distribution versus skewed distribution), statistical outliers, and the study's methodology. Standard deviations may make the difference score statistically non-significant.

Standard deviation measures how widely values (e.g., performance scores) are dispersed from the average or mean. The larger the difference between the performance scores and the average score, the higher the standard deviation will be and the higher the volatility. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within 2 SDs of the mean. In almost any shaped distribution, all scores will be within 5 SDs of the mean score. For instance, if the standard deviations are larger than the difference score, then the difference score becomes a simple descriptive statistical value.

This leads into the second statistical limitation, an issue with distribution of the data. The normal distribution (a bell-shaped curve) represents a theoretical frequency distribution of measurements. In a normal distribution, scores are concentrated near the mean and decrease in frequency as the distance from the mean increases. Difference scores are highly impacted by skewed distribution of data. For instance, if there are significantly high statistical outliers, those outliers could in turn affect the difference score by pulling it to a more positive or negative value. This is similar to what we see in course where high performing students will increase the class average.

Finally, the research design appears to be flawed, in that data was not collected on an annual basis. While this appears to be a longitudinal design, it has too many missing data points (i.e., data was not collected annually). Additionally, this missing data was not controlled for statistically, rather it was simply ignored. In essence, the statistical influence of "performance" during missing years is not addressed. There may have been a cultural trend or a trend in general education that could statistically explain the difference in performance scores. Missing data prevents us from looking at the possibility as a trend. It is also unclear why learning outcome 1 (time point 1) were compared to learning outcome 1 (time point 2), and learning outcome 2 (time point 1) were compared to learning outcome 2 (time point 2). It may have made clearer statistical sense to compare the difference score of learning outcome 1 and 2 (time point 1) versus the difference of time point 2. However, this would not have addressed the aforementioned statistical limitations.

Statistical limitations mentioned addressing the data presented in Table 3 also apply to Table 4. Even though a difference scores were not reported in table 4, it appears that the basic interpretative assumption is that the difference in scores indicates some sort of performance change. If we took the difference between the performance mean of 2008 and compared it to the performance mean of 2009, we would have a very small number—making it highly likely that score to be smaller than the standard deviation, rendering that number into a simple descriptive statistic.

Longitudinal research designs appear to work best within an educational system. This design allows for the statistical measurement of potential performance pathways (i.e., how performance changes over the years). However, by design, longitudinal research requires that data be collected at multiple time points (attempting to minimize missing data). The use of such a design would not provide any true statistical picture for several years. Therefore, we would recommend the use of a modified longitudinal design. Data would be collected at different time points during several years, but from different cohorts. By collecting data from freshmen, sophomore, junior and senior cohorts at different time points, we could have comparable data within the first year. Current research has identified that several variables may influence student outcome. We suggest that such variables be statistically controlled for covariates in this design. Those suggested statistical covariates would be type of student (i.e., traditional, non-traditional, transfer etc.), student SES and student GPA. Research has shown that these variables affect student outcomes; by controlling for such variables we would be minimizing variance or the statistical influence of those variables on the data set. Finally, we recommend that data collected be both qualitative (open ended questions) and quantitative (e.g., likert scale). This would allow for a clearer statistical picture. Such a study should first be carried out on focus groups, divided by cohort.

## **Appendix D. Task Force on Re-creating General Education, Final Report, Fall 2010**

The purpose of General Education Requirements at SUNY-Oswego is to provide all students with the essentials of a liberal education, preparing them to live as productive and fulfilled citizens of the twenty-first century. These are the core requirements that provide students with the breadth of information necessary for creative problem solving, the motivation and skills for lifelong learning, and the abilities to be contributing citizens active in the betterment of their country, the world, and humanity.

In this report, we have held to the mission for our work as delineated to us by the Provost and Faculty Assembly and have not moved to make recommendations on what our own general education program should look like.

### Graduation Learning Outcomes

To this end, the Task Force on Recreating General Education, in line with the duties assigned to it by the Provost, has developed a set of learning outcomes that all students should meet by the time of graduation. These are:

1. Knowledge of people, cultures, languages, the arts, and the natural world
2. Intellectual and practical skills
  - a. Inquiry and analysis
  - b. Critical and creative thinking
  - c. Written and oral communication
  - d. Quantitative literacy
  - e. Information literacy
  - f. Teamwork
  - g. Problem solving
  - h. Visual literacy
3. Personal and social responsibility
  - a. Civic and political engagement
  - b. Intercultural knowledge
  - c. Ethical reasoning
  - d. Wellness
  - e. Sustainability
  - f. Life skills
4. Ability to integrate information across knowledge domains and disciplines

While these are all seen as outcomes of a liberal education, and are in major part a reiteration of the learning outcomes specified in AAC & U's report on liberal education, we do not see them as mapped on to individual courses or, in fact, as learning outcomes specific to general education, but as end results of the totality of a liberal education. They can be met through general education, through the major program of study or through extra-curricular activities. Outcomes should also be infused into as many courses in the curriculum as possible. Such integration could take the form of class assignments, activities, or examples that promote one or more of the learning outcomes. Other outcomes may be best realized through clusters of course.

## Meeting the Learning Outcomes

The Task Force looked at two sources of information for ideas on how best to develop a program of study that allows students to meet the graduation learning outcomes. These were: 1) the AAC & U report on Liberal Education, as this is a synthesis of the information gathered from national experts and exemplary programs; and 2) the general education programs from a large number of campuses for information on how other campuses construct their general education programs. From this, we abstracted a number of general principles that seemed to be consistent across the campuses whose programs we most admired.

*AAC & U Report.* The following list of activities for meeting learning outcomes comes from the AAC & U Report. These activities are not course or even general education specific, but do relate to the learning outcomes. They include:

- Engagement with big questions, both contemporary and enduring
- Extensive practice in the context of progressively more challenging problems, projects, and standards for performance
- Active involvement with diverse communities and real-world challenges
- Synthesis and advanced accomplishment across general and specialized studies

*Synthesis of Best Practices from Other Institutions.* The Task Force looked at a large number and variety of institutions to determine both consistencies across programs and what we felt to be best practices. The following list, in no specific order, pulls together what our research found as significant points.

- **Individual courses are not necessary for each outcome.** The committee felt that it was not only possible but desirable for a general education program to combine outcomes in individual courses or across groups of courses. It also felt that outcomes could be met with courses in the major and extra-curricular activities. In addition, it was felt that some outcomes could only be met with a series of courses.
- **First Year courses.** A vast majority of campuses had some type of first year experience for their students. This course was not usually a traditional first year seminar, but a course in which students began the processes of engagement with big questions, information literacy as combined with writing and communication skills, and often civic engagement. Students were taught how to be responsible for their own learning experience through projects, assignments, and learning to work in groups.
- **Capstone courses.** Although many of the programs we looked at had capstone courses in the major, many had capstones that integrated general education with the major. Often these involved such things as study abroad, internship, community service, or independent studies or research projects.
- **Partnerships with Student Affairs.** Because of the connection between many of the learning outcomes and students' experiences outside the classroom, a strong link with the Student Affairs division was deemed important. If we thought of the students' experiences on a college campus as more than the sum of what they learn in individual courses, it became clear that some outcomes could, and should, be met with extra-

curricular activities. These included areas such as wellness and life skills, but also could include such things as sustainability and civic engagement.

- **Use of electronic portfolios to manage student learning.** On many campuses, students were using electronic portfolios to document their learning experiences, particularly those that took place outside the classroom. These portfolios were later evaluated to determine whether the student had the evidence to support meeting a specific outcome. For example, if the student had used a community service project to meet a learning outcome for civic engagement, documentation of the project and how that project met the learning outcome would be included in the electronic portfolio.
- **Integrative clusters.** Almost all the campuses that we thought as having innovative general education programs used some sort of integrative cluster to meet learning outcomes. In some cases, students could meet the integrative requirement by taking an interdisciplinary second major or minor. In other cases, the student chose courses from clusters that faculty from across the campus had put together. These were usually thematically related. For example, a sustainability cluster might have courses from the sciences and social sciences that relate to the issue of sustainability. In most cases, these courses came from more than one school or subdivisional area.
- **Importance of websites that are easy to navigate.** To help students manage their own general education, the best programs had websites that were highly informative and easy to navigate. An example of an excellent website is that from Appalachian State University. As the curricula became more complex, and the options were numerous, this became crucial. It made clear that a general education program does not have to be simple to understand, but that there needs to be easily available information to help students navigate the system.
- **Ties to the local/global community.** Many programs had some type of community service or civic engagement requirement. This helped the student to develop personal and social responsibility (learning outcome).
- **Global competence and study abroad.** Study abroad is a very effective means to internationalize liberal education. It is an exceptional tool for infusing vitality into the curriculum and achieving global knowledge and competence in a world increasingly interconnected in all fields of knowledge. Second-language acquisition, in particular, opens students' minds to other cultures and to experience cultural traditions other than their own through study in other countries.
- **Infusion of elements in the major.** Most programs infused at least some of the learning outcomes into the major. This was particularly true in the area of intellectual and practical skills, such as writing, critical thinking, oral communication, and some elements of quantitative literacy. Since it is in the major that the opportunity for "extensive practice in the context of more challenging problems, projects, and standards" arises, a developmental approach to the infusion of these elements was deemed essential.
- **Use of new technology/pedagogies.** Programs that were open to new ideas using technology or innovative pedagogies were deemed excellent models. Pedagogies, for example, that enhanced the ability of students to think across disciplines in the development of projects, activities, or connections with the community were thought to enhance the students' learning experience.
- **Sensitivity to transfer issues.** Although many of the programs required students to start in their freshman year, the best programs had alternate models for completion for transfer

students. This acknowledged the reality of the number of transfer students on any campus and the difficulty many had meeting the same criteria as first year students. On the other hand, it allowed those campuses to have innovative general education programs for the student who did start on the campus in their freshman year.

We thank all of the people who have provided us with the names of campuses to look at and all the support we have received for our work.

Task Force on Re-creating General Education

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