## SUNY General Education for the 21st Century

Task Force Charge

The General Education working group will:

1. Conduct an environmental scan which includes, but is not limited to, studying and analyzing national trends, higher education systems, regional accrediting bodies, and SUNY campus models of General Education. The group will assess the current program in light of the results of the scan and the societal need for an educated populace. A white paper will be produced by April 1, 2018 and shared with appropriate governance and other bodies.
2. Conduct an analysis of feedback generated from groups reviewing the white paper. A report suggesting potential framework(s) for revising SUNY General Education for the 21s century student will be delivered to appropriate governance and other bodies for consideration by September 15, 2018.

## Executive Summary

SUNY General Education offers a coherent program to provide students graduating from college the breadth of knowledge in a wide array of disciplines, and set of skills to continue to learn beyond college. The program is general and non-major specific, giving students tools to understand and participate in their communities as engaged citizens. General Education in the 21st century needs to reflect the changing world, with its global and digitally connected spaces, and a need for communication, knowledge of politics, history, science, math and digital literacy.

## Philosophy of General Education

## The Philosophy of SUNY General Education for the $21^{\text {st }}$ century

The State University of New York General Education Scheme is founded on the principle that all students should be given a coherent foundation of non-specialized and focused educational experiences that enable them to acquire knowledge, skills and values that are important for all educated persons. Our unique system ensures a fundamental equality and coordination among distinct campus programs, permitting students to find a "best fit" for their changing needs across an educational career. To ensure the quality, utility and effectiveness of General Education programs across the system, the Scheme includes provisions that: 1) programs will be created, implemented and assessed with significant faculty participation at every stage; 2) students should be educated in the purpose, value and scope of the general education program on their respective campuses; 3) campus general education programs should enable students to change campuses at least once in their college careers without adding unnecessary time, cost, and/or duplication of effort; and 4) effective general education programs require regular, data-
based assessment not only to ensure that outcomes are being met, but to determine that the outcomes themselves are appropriate to our rapidly changing world.

The knowledge, skills and values acquired through General Education will be part of a program encompassing competency areas. The courses that comprise this educational program will have learning outcomes that are measurable, and can be assessed. These outcomes will aid each campus in establishing their own program, designed to foster a coherent student learning experience and to promote a synthesis of learning. The breadth and variety of courses available in each competency or category area will ensure that opportunity exists for students to meet these standards; coherence of this program is in the learning outcomes for each area and the program as a whole.

## Principles of General Education

Brint et. al. (2009) reviewed general education programs from several hundred four-year colleges and universities over the time period 1975 to 2000, as described in their college catalogs. They identified four principle models of general education, which they labeled "core distribution areas," "traditional liberal arts," "cultures and ethics," and "civic/utilitarian" models. The core distribution areas model was the most prevalent over this time period. The traditional liberal arts model (focusing more explicitly on humanities) was also present throughout this time period, though not as prevalent as the core distribution areas model. The cultures and ethics model and the civic/utilitarian model both arose during the time period studied, reflecting changing conceptions of the role of general education. The authors also noted addition of new subject area requirements over time, in areas such as basic academic skills, gender and racialethnic diversity, non-Western cultures.

SUNY's current general education requirements fit within these categories. Created in part as a "civic/utilitarian" model, the program relies heavily on core distribution areas. This allows for maximum flexibility, and local campus autonomy. The purely informational content of the current system is of somewhat lower priority in the 21st century with the availability of this type of information through digital sources. Other elements, however, including civic engagement, ethics and cultural values, are not as readily available, or contextualized, through search engines, however, and should likely remain a focus..

## History of SUNY GE Background

Bringsjord et. al. (2017) explain the origins of SUNY's General Education system as follows."In December 1998, the Board of Trustees passed a resolution that established a system-wide set of General Education Requirements (SUNY-GER). From the start, SUNY-GER was strongly opposed by the faculty and professional staff governance bodies of the university and its campuses. It was criticized for both its content (which was viewed as consistent with more conservative forces battling the larger "culture wars") and the means of its creation: an imposition by the Board without the active engagement of faculty governance.
Faculty governance groups throughout the system considered the imposition of SUNY-GER to be a clear violation of the American Association of University Professor (AAUP)'s 1966
"Statement on Shared Governance," which had identified the curriculum as a major area of faculty authority. Fortunately, significant efforts by faculty governance and the SUNY Office of the Provost led to an approach that put faculty at the core of faculty implementation. After an initial period of faculty resistance, the Provost Office organized system-wide advisory groups; its first incarnation (1998-2000) was the Provost's Advisory Committee on General Education (PACGE). The PACGE played a critical role by engaging faculty from across the system to evaluate campus programs and courses.

In the next two years (2000-2002), the implementation of the SUNY-GER devolved to the campuses, which had submitted detailed implementation plans. These plans included great specificity and standardization of approach, with the expectation that identified courses would meet the designated learning objectives for each of the 12 categories.
The SUNY-GER elements became a requirement for bachelor's degrees ( 30 credits in 10 specified content areas), while the system's community colleges agreed to require 21 credits in 7 of the 10 areas within associate degrees. As part of SUNY-GER implementation, faculty committees worked with the SUNY Office of the Provost to develop a list of courses that would be transferable among SUNY's campuses to fulfill general education requirements. And by providing both a list of courses from all sectors within SUNY, and an on-going process that modeled faculty-administration collaboration, the implementation allowed the university community to transcend the issues that first plagued the initiative and move transfer policy forward. In the same period, Provost Peter Salins convened the General Education Assessment Review Group (GEAR) to develop the guidelines for assessing the campus programs in light of the new requirements.
....To maintain course information, SUNY created a centrally maintained database and each campus registrar developed a General Education Transcript Addendum (GETA) to identify both the appropriate transfer credit and the requirements those credits satisfied."

In 2010, the SUNY Board of Trustees made an additional revision in Gen Ed policy. Initially, students were required to earn 30 credits of Gen Ed across ten categories. The policy was adjusted to reduce the number of requisite categories from ten to seven but the 30 credit mandate was retained. This alteration allowed students to complete the Gen Education requirement with a bit more ease.

## Operationalizing SUNY General education

The current SUNY GE identifies ten competency/content areas that are addressed in specified courses: Basic Communication; Mathematics; US History; Western Civilization; Other World Civilizations; Humanities; Arts; Social Sciences; Natural Sciences; and Foreign Languages. There are two competencies that can be embedded across the curricula: Information Management and Critical Thinking. All SUNY students must complete at least 30 credits of SUNY GE courses, including Basic Communication, Mathematics, and at least five of the remaining eight categories. SUNY GE categories satisfied at one SUNY institution must be
accepted by other SUNY campuses. All General Education programs are designed to be completed during the first two years of full-time study, or the first 60 credits.
There are differences and variations in General Education across the 64 campuses. The most common addition is diversity (see Appendix 1).

One complication for all SUNY campuses is the need to be accredited by the Middle States Commission on Higher Education (MSCHE) while also fulfilling the requirements of SUNY general education as required by SUNY Board policy. According to MSCHE expectations, all students on a campus must be exposed to the MSCHE categories through an academic or cocurricular experience. SUNY general education requirements must be fulfilled by all students in all baccalaureate and associate's degree transfer programs. In the community college sector and some Ag \& Techs, the A.A.S. and A.O.S. programs are not required to accommodate the thirty credits of general education as those are considered terminal programs. This generates the paradox that MSCHE general education must be met by all SUNY students, but SUNY General Education must be met by all SUNY students except those enrolled in A.A.S. and A.O.S. programs

The current MSCHE policies identify nine competency areas: Written and Oral Communication; Quantitative Reasoning; Critical Analysis and Reasoning; Information Literacy; Scientific Reasoning; Diverse Perspectives; Global Awareness; Cultural Sensitivity; Value and Ethics. There is some direct alignment, and some probable alignment, between current SUNY General Education and MSCHE (see below).

| Required SUNY GER Categories | MSCHE Categories which will be met |
| :--- | :--- |
|  |  |
| Basic Communication (Written and Oral) | Written and Oral Communication |
| Mathematics | Quantitative Reasoning |
| Critical Thinking | Critical Analysis and Reasoning |
| Information Management | Information Literacy |
|  | MSCHE Categories which may be met |
| Additional SUNY GER Categories |  |


|  |  |
| :--- | :--- |
| Natural Science | Scientific Reasoning |
| Social Science | Scientific Reasoning, Diverse Perspectives |
| American History | Diverse Perspectives |
| Western Civilization | Global Awareness, Cultural Sensitivity |
| Other World Civilizations | Civerse Perspectives, Global Awareness, Sensitivity |
| Foreign Language | Values, Ethics, Diverse Perspectives, <br> Global Awareness, Cultural Sensitivity |
| Humanities | Values, Ethics, Diverse Perspectives, <br> Global Awareness, Cultural Sensitivity |
| The Arts | Diverse Perspectives, Global Awareness, <br> Cultural Sensitivity |
| Basic Communication | Technological Competency |
| Information Management |  |

## Analysis of SUNY Undergraduate student GER course-taking patterns

To better understand SUNY undergraduate student general education course taking patterns, the SUNY Office of Institutional Research performed an analysis of SUNY student unit record data. Using a backward looking cohort model, the academic records of an analytical sample of 40,677 students were analyzed to determine which general education categories were completed and the number of credits earned.[1] Key findings include:

- Across all sectors, Social Science, Natural Science, Mathematics, Humanities, and Basic Communication are completed at relatively high rates (see figure 2).
- Foreign Languages and Other World Civilizations tend to be completed at lower rates than other categories. At the system level, Foreign Languages had the lowest completion percentage (43.5\%), and was the only category to fall below $50 \%$.
- Foreign Languages at the community colleges had the lowest completion rate of any of the categories by sector at $38.1 \%$. There are two possible reasons for this. Either a student never enrolled in a course fulfilling this category, or the student did not have any earned credits (which would mean that they had failed the course).

The Other World Civilizations category, completed at a relatively low percentage systemwide, is completed by a much higher percentage of students at doctoral degree granting institutions (84.7\%) and Comprehensive Colleges (75.2\%), than students at Technology Colleges (40.2\%) and Community Colleges (39.7\%).

- Award type appears to have a strong relationship to which categories students tend to complete (see figure 3). For example, $61.6 \%$ of B.A. students complete the Foreign Language category - much higher than other types of awards.
. As shown in figure 4, students tend to earn the greatest number of credits in the Social Science (10.4) and Natural Science (7.6) categories, followed by Humanities (6.3), Math (6.1), Basic Communication (4.9), the Arts (4.2), Other World Civilizations (2.8), Western Civilization and American History (both are 2.7), and Foreign Languages (2.4).
The following graphs show the percentage of student completing SUNY general education categories system-wide (figure 1), by sector (figure 2), and by award type (figure 3). Average number of credits earned are shown system-wide (figure 4), by sector (figure 5), and by award level (figure 6).

[^0]Figure 1
Percentage of Students Completing General Education Categories System Wide


Figure 2
Percentage of Students Completing General Education Categories by Sector


Figure 3
Percentage of Students Completing General Education Categories by Award Type


Figure 4
Average Number of Credits Earned within General Education Categories System Wide


Figure 5
Average Number of Credits Earned within General Education Categories by Sector


Figure 6
Average Number of Credits Earned within General Education Categories by Award Level


## Current Trends in Higher Education Impacting General Education

## National Initiative in general education: LEAP

The Liberal Education and America's Promise (LEAP) program from AAC\&U is slightly over a decade old. This initiative has involved bringing faculty together from higher education institutions across the United States, to define essential learning outcomes and high impact instructional practices that will prepare students for the challenges of the 21st Century. The essential learning outcomes encompass a mix of disciplinary, skills, and civic components, and have associated a set of VALUE rubrics (Valid Assessment of Learning in Undergraduate Education). Each of these 16 rubrics includes a definition, framing language, glossary, and the actual rubric components and levels. AAC\&U is now working in partnership with Indiana University's Center for Postsecondary Research, to develop and scale up the VALUE Institute, where institutions can submit samples of student work for scoring with the VALUE rubrics, and
generally access resources for using assessment of learning outcomes to improve student learning.

The set of VALUE rubrics includes the following: Intellectual and Practical Skills -- Inquiry and analysis, Critical thinking, Creative thinking, Written communication, Oral communication, Reading, Quantitative literacy, Information literacy, Teamwork, and Problem solving; Personal and Social Responsibility -- Civic engagement (local and global), Intercultural knowledge and competence, Ethical reasoning, Foundations and skills for lifelong learning, Global learning; and Integrative and Applied Learning -- Integrative learning.

The LEAP program also includes a focus on High Impact Practices, including First-Year Experiences; Common Intellectual Experiences; Learning Communities; Writing-Intensive Courses; Collaborative Assignments and Projects; Undergraduate Research; Diversity/Global Learning; ePortfolios; Service Learning, Community-Based Learning; Internships; Capstone Courses and Projects

## General education trends among LEAP institutions

In 2015, AAC\&U conducted a survey of 1001 chief academic officers at AAC\&U member institutions to assess the impact of this national initiative. 325 CAOs responded to this survey.

General education can be met using various models: the distribution model whereby competencies are met via courses that are determined to provide those competencies; or via competency-based education outcomes. As for general education design models, 76\% of the member institutions from the LEAP survey use a 'distribution model' for their general education program, but it is typically employed with another feature, such as a distribution model used in combination with a capstone model or culminating experience in the major. $46 \%$ have upper level general education requirements, and $44 \%$ require a core curriculum.

Competency-based education programs are offered by 11\% of the member institutions, but 40\% report that their campus is considering developing a competency-based program. A greater emphasis is being placed on general education than there was five years ago and there is greater emphasis on the integration of knowledge, skills and application than on broad knowledge acquisition (67\%). Applied learning experiences are gaining a new emphasis at 61\% of the institutions.

Most member institutions of AAC\&U use common learning outcomes for all of their undergraduate students. In fact, 85\% of those respondents use a set of outcomes, up from 78\% in $2008.82 \%$ of public institutions have common learning outcomes for all students.

AAC\&U member institutions largely agree on the broad skills and knowledge areas that are required of their students. The top 15 are writing skills (99\%); critical thinking \& analytical reasoning (98\%); quantitative reasoning (94\%); knowledge of science (92\%); knowledge of mathematics (92\%); knowledge of humanities (92\%); knowledge of global world cultures (89\%);
knowledge of social sciences (89\%); knowledge of the arts (85\%); oral communication skills (82\%); intercultural skills and abilities (79\%); information literacy skills (76\%); research skills (75\%); ethical reasoning skills (75\%); and knowledge of diversity in the US (73\%).

In the ten years since the LEAP initiative was launched, there have been several changes, which include: fewer institutions require oral communications (down from $88 \%$ to $82 \%$ in 2015) and technology (down from $61 \%$ in 2008 to $49 \%$ in 2015). A requirement for research skills has increased since 2008 from $65 \%$ to $75 \%$ today. Most institutions report that students have no better understanding of their common learning outcomes today than they did in 2008.

High impact practices to advance student success are being implemented at LEAP member institutions and some are being required, especially those that support the transition to college. The top five most likely approaches include:

|  | required |  | optional |
| :--- | :--- | :--- | :--- |
|  |  | $60 \%$ |  |
| First year experiences | $52 \%$ |  | $30 \%$ |
| First year academic seminars | $52 \%$ |  | $41 \%$ |
| Global or world culture studies |  |  |  |
| Orientations to liberal educ. (incl purpose \& value) | $42 \%$ |  | $23 \%$ |
| Diversity studies \& experiences | $34 \%$ |  | $53 \%$ |

Many other high-impact practices, for LEAP institutions, are being made available to students including: internships, service-learning, learning communities, and undergraduate research. But rarely are these approaches required of all students. Applied learning projects more generally are only required by about one fourth of the member institutions and half require some students to engage in applied learning projects (occur in capstone courses, research projects or fieldbased activities, often across semesters).

There is a consensus among survey respondents that general education programs could be better linked with majors. $58 \%$ of member institutions believe their gen ed is very or fairly well integrated in the major; while $42 \%$ believe is it only somewhat or not well integrated with the major. Institutions that require a capstone experience in the major understandably believe their general education is well-integrated in the major.

## Profile of other state/system general education requirements

The standards for Middle States requirements have changed significantly from the previous iteration to the current version. This is a major consideration, should SUNY GER be revised. Middle States Commission on Higher Education (From Standards of Accreditation and Requirements of Affiliation, Thirteenth Edition, 2015, Standard III (Design and Delivery of the Student Learning Experience), criterion 5 states:

At institutions that offer undergraduate education, a general education program, free-standing or integrated into academic disciplines, that:
a. offers a sufficient scope to draw students into new areas of intellectual experience, expanding their cultural and global awareness and cultural sensitivity, and preparing them to make wellreasoned judgments outside as well as within their academic field;
b. offers a curriculum designed so that students acquire and demonstrate essential skills including at least oral and written communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy.
Consistent with mission, the general education program also includes the study of values, ethics, and diverse perspectives

A comparison of other system or state general education requirements is suggestive, but not illustrative. Each system uses a distribution model, which suggests the difficulty moving in any other direction. Of particular interest, as a point of comparison, are the general education requirements of other systems accredited by MSCHE. (See Appendix 2 for systems not supervised by MSCHE.)

CUNY General Education System: English; math; one course in sciences; one course each in world cultures/global issues, individual and society, scientific world, US experience in its diversity, creative expression (double up one of these).

Penn State General Education System: In addition to the typical required general education courses, Penn State requires health/physical education; U.S. Culture; International Culture; and one course designated as writing across the curriculum. There are seven key objectives which include Effective communication; Key literacies; Critical and analytical thinking; Integrative thinking; Creative thinking; Global learning; and Social responsibility and ethical reasoning. Each course is expected to incorporate two to four of these key objectives.

Pennsylvania State General Education System (PASSHE): At least 40 semester credit hours are focused on competencies consistent with liberal education learning outcomes; these are typically met through study in the humanities; fine arts; communication; social and behavioral sciences; mathematics; and the natural/physical sciences. In addition, general education requirements should be consistent with distribution requirements of the statewide Transfer Credit Framework. Transfer credits up to 30 semester hours will be applied to the general education requirement, assuming the courses meet the standards of the Transfer Credit Framework and are designated as equivalent through identification of comparable competencies attained by students. Certain majors have specific requirements prescribed by external agencies that may pertain to general education requirements.

The Maryland State System: arts and humanities; English composition; social and behavioral sciences; mathematics; biological or physical sciences.

All general education systems surveyed require courses in the following categories: English composition; mathematics/quantitative reasoning; arts and humanities; social sciences; physical and/or biological sciences.

## Other Regional Accrediting Bodies

There are some common themes across the different regional accrediting commissions. All regions share a focus on cultural knowledge and diversity; oral and written communication skills; natural sciences; social sciences; humanities; and fine arts. The criteria share a goal of preparing students for life after school (i.e. becoming a productive member of society, gaining knowledge through general education courses that will help students in life after school, teaching student life-long learning skills). Most systems require 30 credits at the Bachelor's level and 15 at the Associates; NEASC requires 40 and 20 credits, respectively, while Middle States has no credit requirement. All stress assessable learning outcomes. (For details, see appendix 3.)

## Conclusions

The SUNY GE requirements do not meet the needs of our current students, in part because SUNY standards do not match MSCHE requirements. The differences between what SUNY and MSCHE require, as well as the differences between content-based outcomes (SUNY) and outcome-based courses (MSCHE and LEAP), provide possible directions for a new SUNY GE. Many campuses are both compliant with SUNY, and ahead of what SUNY currently require, as they align in many important spaces with MSCHE requirements.

There is a value in the knowledge our students gain in a general education program. The "soft skills of the 21st century" help them become better citizens of the state, and the world. As part of a system, there is value in a coherent program. A critical element in the SUNY General Education plan is the need for ease of transfer between, and across, institutions.

## Literature Cited and Resources

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ten Cate, Olle and Feeda, Scheele. Viewpoint: Competency-Based Postgraduate Training: Can We Bridge the Gap between Theory and Clinical Practice? Academic Medicine 82(6): 542.

## Appendix 1: General Education and local campus distinctiveness (state-operated campuses).

Campus general education requirements on the state-operated campuses were reviewed in May 2017. Changes made since that date are not reflected in this summary. After SUNY GER requirements were changed in 2009, campus requirements began to diverge.

The following twelve state-operated campuses conform to the minimum SUNY requirement. They require students to complete a minimum of one course in each of seven of the ten general education categories - some with restrictions as noted:

Canton
Cobleskill
Delhi (social science or western civilization; humanities or arts; foreign language or other world civilization)

Empire State College
Environmental Science and Forestry
Maritime (physical education required)
Morrisville
Oneonta
Oswego (science; world awareness; and two semester language proficiency required)
Plattsburgh (science; humanities or arts; US or western civilization; other civilization or foreign language required)

Purchase
SUNY-Poly (upper division writing required)

Two campuses require students to complete a minimum of one course in each of nine of the ten general education categories (neither campus requires a course in western civilization):

Binghamton
Cortland (one contrasting cultures; science must have lab; prejudice and discrimination; science, technology, values, and society; foreign language requirement varies by major)

The following eight campuses require students to complete a minimum of one course in each of the ten general education categories with further additions or restrictions as noted:

Alfred
Brockport (two sciences, minimum one with lab; two fine arts, one must be performance; two humanities, writing intensive, two social sciences, writing intensive;, four semesters foreign language for BA or one semester for BS; one diversity or other world civilization; one perspectives on gender; one contemporary issues)

Buffalo State (diversity)
Farmingdale (writing intensive)

Fredonia (two social science; two science; two semester language proficiency for BA only)

Geneseo (two science; two social science; two arts; three semester language
proficiency)
New Paltz (two science; diversity; two semester language proficiency) Old Westbury (diversity; two English; lab science)

Four campuses - Albany, Buffalo (UB), Potsdam, and Stony Brook have their own general education programs that are challenging to fit into the SUNY template.

|  | BAS <br> IC <br> CO <br> M | $\begin{array}{\|l} \mathrm{MA} \\ \mathrm{~T} \end{array}$ | $\begin{aligned} & \mathrm{SO} \\ & \mathrm{C} \\ & \mathrm{SCl} \end{aligned}$ | $\begin{aligned} & \text { NAT } \\ & \text { SCI } \end{aligned}$ | $\begin{aligned} & \mathrm{HU} \\ & \mathrm{M} \end{aligned}$ | ART | FL | $\begin{aligned} & \text { US } \\ & \mathrm{H} \end{aligned}$ | WC | $\begin{aligned} & \mathrm{OW} \\ & \mathrm{C} \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7-of-10 |  |  |  |  |  |  |  |  |  |  |  |
| Canton | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Cobleskill | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Delhi | X | X | $\bigcirc$ | X | - | - | $\square$ | X | - | ■ |  |
| ESC | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| ESF | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Maritime | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Morrisville | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Oneonta | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Oswego | X | X |  | X |  |  | 2 |  |  |  | + |
| Plattsburgh | 2 | X | X | X | - | - | $\square$ | $\bigcirc$ | $\bigcirc$ | $\square$ |  |
| Purchase | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  |  |
| Poly | X | X | CHOICE OF ANY 5 |  |  |  |  |  |  |  | + |
| 9-of-10 |  |  |  |  |  |  |  |  |  |  |  |
| Binghamton | X | X | X | X | X | X | X | X |  | X |  |
| Cortland | X | X | X | X | X | X | X | X |  | X | + |
| 10-of-10 |  |  |  |  |  |  |  |  |  |  |  |
| Alfred | X | X | X | X | X | X | X | X | X | X |  |
| Brockport | X | X | 2 | 2 | 2 | 2 | X | X | X | X | + |
| Buffalo | X | X | X | X | X | X | X | X | X | X | + |


| State |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Farmingdal <br> e | X | X | X | X | X | X | X | X | X | X | + |
| Fredonia | X | X | 2 | 2 | X | X | 2 | X | X | X |  |
| Geneseo | X | X | 2 | 2 | X | 2 | 3 | X | X | X |  |
| New Paltz | X | X | X | 2 | X | X | 2 | X | X | X | + |
| Old <br> Westbury | 2 | X | X | X | X | X | X | X | X | X | + |
| Unmapable |  |  |  |  |  |  |  |  |  |  |  |
| Albany |  |  |  |  |  |  |  |  |  |  |  |
| UB |  |  |  |  |  |  |  |  |  |  |  |
| Potsdam |  |  |  |  |  |  |  |  |  |  |  |
| StonyBrook |  |  |  |  |  |  |  |  |  |  |  |

$\mathrm{X}=$ Category is required (1 course) $\boldsymbol{\bullet}, \boldsymbol{\square}=$ students have a choice between the categories with similar shapes
2,3 = two or three course or semester requirement $\quad+=$ Campus prescribes one or more category beyond SUNY definitions

Appendix 2: General education requirements; institutions not accredited by MSCHE
Florida State: The Florida State system requires the typical** general education topics but also includes the major subject areas of biological sciences; diversity studies; international studies; physical sciences; and social and behavioral sciences.

Tennessee State System: The Tennessee State system requires the typical** general education areas for an A.S./A.A. and includes an oral presentation/communication course, and literature for a total of 41 general education credits.

For an A. A. S. the required general education requirement is 15 to 17 hours and math or natural science is an option, not both.

University of California/California System: The University of California has the typical** set of general education requirements. Each individual college of the University of California may have their own general education requirements. Students at a California community college have additional general education courses to complete to ensure successful transfer to the University of California; these are optional courses. This is called Intersegmental General Education Transfer Curriculum (IGETC) and includes the typical general education courses
specified by each transfer college. There is also an additional course in oral communication where students do not need to demonstrate proficiency in a language other than English.
**Note: "typical" general education courses include English composition; mathematics/quantitative reasoning; arts and humanities; social science;, physical/biological science

Florida State: The Florida State system requires the typical** general education topics but also includes the major subject areas of biological sciences, diversity studies, international studies, physical sciences, and social and behavioral sciences.

Tennessee State System: The Tennessee State system requires the typical** general education areas for an A.S./A.A. and includes an oral presentation/communication course, and literature for a total of 41 general education credits.

For an A. A. S. the required general education requirement is 15 to 17 hours and math or natural science is an option, not both.

## Appendix 3: Regional accrediting bodies

Areas Overseen by the Regional Accrediting Agencies
Middle States Association: New York, New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, Puerto Rico, and the US Virgin Islands
New England Association: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Higher Learning Commission: Arkansas, Arizona, Colorado, Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Wisconsin, West Virginia, and Wyoming
Northwest Commission: Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington Southern Association: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia
Western Association: "Four-year schools" in California, Hawaii, Guam, American Samoa, Micronesia, Palau, and Northern Marianas Islands, as well as schools for American children in Asia
Accrediting Commission: Community colleges (some of which offer baccalaureate degrees) in California, Hawaii, Guam, American Samoa, Micronesia, Palau, and Northern Marianas Islands, as well as schools for American children in Asia

Requirements of each accrediting body.
The following sections are excerpted from the current criteria for accreditation published by each of the seven regional accrediting bodies that oversee most public and non-profit colleges
and universities. There are some significant differences among the accrediting agencies in terms of the degree of prescriptiveness of general education categories, including numbers of credit hours (if any) required.
New England Association of Schools and Colleges, Commission on Institutions of Higher Education (From Standards for Accreditation, 2016, Standard Four (The Academic Program) 4.16 The general education requirement is coherent and substantive. It embodies the institution's definition of an educated person and prepares students for the world in which they will live. The requirement informs the design of all general education courses, and provides criteria for its evaluation, including the assessment of what students learn.
4.17 The general education requirement in each undergraduate program ensures adequate breadth for all degree-seeking students by showing a balanced regard for what are traditionally referred to as the arts and humanities, the sciences including mathematics, and the social sciences. General education requirements include offerings that focus on the subject matter and methodologies of these three primary domains of knowledge as well as on their relationships to one another.
4.18 The institution ensures that all undergraduate students complete at least the equivalent of 40 semester credits in a bachelor's degree program, or the equivalent of 20 semester credits in an associate's degree program in general education.

Higher Learning Commission From Criteria for Accreditation, 2014, Criterion 3 (Teaching and Learning: Quality, Resources, and Support), Core Component 3B.
The institution demonstrates that the exercise of intellectual inquiry and the acquisition, application, and integration of broad learning and skills are integral to its educational programs.

1. The general education program is appropriate to the mission, educational offerings, and degree levels of the institution. 2. The institution articulates the purposes, content, and intended learning outcomes of its undergraduate general education requirements. The program of general education is grounded in a philosophy or framework developed by the institution or adopted from an established framework. It imparts broad knowledge and intellectual concepts to students and develops skills and attitudes that the institution believes every college-educated person should possess.
2. Every degree program offered by the institution engages students in collecting, analyzing, and communicating information; in mastering modes of inquiry or creative work; and in developing skills adaptable to changing environments.
3. The education offered by the institution recognizes the human and cultural diversity of the world in which students live and work.

From Assumed Practices, 2017, Section B (Teaching and Learning, Quality, Resources, and Support), Part 1 (Programs, Courses, and Credits), Paragraph h.
The institution maintains a minimum requirement for general education for all of its undergraduate programs whether through a traditional practice of distributed curricula (15 semester credits for AAS degrees, 24 for AS or AA degrees, and 30 for bachelor's degrees) or through integrated, embedded, interdisciplinary, or other accepted models that demonstrate a minimum requirement equivalent to the distributed model. Any variation is explained and justified.

Northwest Commission on Colleges and Universities From Accreditation Handbook, January 2017 Edition, Section 2.C.9.
The General Education component of undergraduate programs (if offered) demonstrates an integrated course of study that helps students develop the breadth and depth of intellect to become more effective learners and to prepare them for a productive life of work, citizenship, and personal fulfillment. Baccalaureate degree programs and transfer associate degree programs include a recognizable core of general education that represents an integration of basic knowledge and methodology of the humanities and fine arts, mathematical and natural sciences, and social sciences. Applied undergraduate degree and certificate programs of thirty (30) semester credits or forty-five (45) quarter credits in length contain a recognizable core of related instruction or general education with identified outcomes in the areas of communication, computation, and human relations that align with and support program goals or intended outcomes.

Southern Association of Colleges and Schools, Commission on Colleges From The Principles of Accreditation: Foundations for Quality Enhancement, 2018 Edition, Section 9 (Education Program Structure and Content), paragraph 3.
The institution requires the successful completion of a general education component at the undergraduate level that:
(a) is based on a coherent rationale.
(b) is a substantial component of each undergraduate degree program. For degree completion in associate programs, the component constitutes a minimum of 15 semester hours or the equivalent; for baccalaureate programs, a minimum of 30 semester hours or the equivalent. (c) ensures breadth of knowledge. These credit hours include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. These courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

The institution identifies college-level general education competencies and the extent to which students have attained them. (General education competencies) 3.5.1
The institution publishes requirements for its undergraduate programs, including its general education components. These requirements conform to commonly accepted standards and practices for degree programs. (See Commission policy "The Quality and Integrity of Undergraduate Degrees.") (Undergraduate program requirements) 3.5.3

Western Association of Schools and Colleges From Handbook of Accreditation, 2013, Standard 2 (Achieving Educational Objectives Through Core Functions, Teaching and Learning), Section 2.2a

Undergraduate programs engage students in an integrated course of study of sufficient breadth and depth to prepare them for work, citizenship, and life-long learning. These programs ensure the development of core competencies including, but not limited to, written and oral communication, quantitative reasoning, information literacy, and critical thinking. In addition,
undergraduate programs actively foster creativity, innovation, an appreciation for diversity, ethical and civic responsibility, civic engagement, and the ability to work with others.
Undergraduate programs also ensure breadth for all students in cultural and aesthetic, social and political, and scientific and technical knowledge expected of educated persons. Undergraduate degrees include significant in-depth study in a given area of knowledge (typically described in terms of a program or major).
Guidelines: The institution has a program of General Education that is integrated throughout the curriculum, including at the upper division level, together with significant in-depth study in a given area of knowledge (typically described in terms of a program or major).

WASC Senior College and University Commission
Undergraduate programs engage students in an integrated course of study of sufficient breadth and depth to prepare them for work, citizenship, and life-long learning. These programs ensure the development of core competencies including, but not limited to, written and oral communication, quantitative reasoning, information literacy, and critical thinking. In addition, undergraduate programs actively foster creativity, innovation, an appreciation for diversity, ethical and civic responsibility, civic engagement, and the ability to work with others.
Undergraduate programs also ensure breadth for all students in cultural and aesthetic, social and political, and scientific and technical knowledge expected of educated persons. Undergraduate degrees include significant in-depth study in a given area of knowledge (typically described in terms of a program or major).
Guidelines: The institution has a program of General Education that is integrated throughout the curriculum, including at the upper division level, together with significant in-depth study in a given area of knowledge (typically described in terms of a program or major).

Accrediting Commission for Junior and Community Colleges (Western Association) From Accreditation Standards, Annotated, 2014, Standard II A (Instructional Programs), Paragraph 12
The institution requires of all of its degree programs a component of general education based on a carefully considered philosophy for both associate and baccalaureate degrees that is clearly stated in its catalog. The institution, relying on faculty expertise, determines the appropriateness of each course for inclusion in the general education curriculum, based upon student learning outcomes and competencies appropriate to the degree level. The learning outcomes include a student's preparation for and acceptance of responsible participation in civil society, skills for lifelong learning and application of learning, and a broad comprehension of the development of knowledge, practice, and interpretive approaches in the arts and humanities, the sciences, mathematics, and social sciences. (ER 12)

## Accrediting Association of Community and Junior Colleges

The institution requires of all of its degree programs a component of general education based on a carefully considered philosophy for both associate and baccalaureate degrees that is clearly stated in its catalog. The institution, relying on faculty expertise, determines the appropriateness of each course for inclusion in the general education curriculum, based upon student learning outcomes and competencies appropriate to the degree level. The learning
outcomes include a student's preparation for and acceptance of responsible participation in civil society, skills for lifelong learning and application of Standard II: Student Learning Programs and Services 7 learning, and a broad comprehension of the development of knowledge, practice, and interpretive approaches in the arts and humanities, the sciences, mathematics, and social sciences. (ER 12)


[^0]:    [1] Data were obtained from the SUNY Institutional Research Information System (SIRIS). The methodology for examining general education at SUNY used a backward looking cohort model, starting with students who had earned an associate degree or a baccalaureate degree during the 2016-2017 academic year and matriculated at the degree campus as first time undergraduate students during fall 2011 or later. Limiting the analysis to degree completers provided a more complete picture of what categories are required as compared to categories that are satisfied by student choice. If a student earned both an associate and baccalaureate degree, the baccalaureate degree was taken as the basis for analysis. Course data were available from fall 2011 - spring 2017. Students earning a degree at Alfred Ceramics or Cornell were removed from the analysis because of limited reported course information. This resulted in a final analytical sample of 40,677 students.
    General education courses were categorized based on SIRIS reporting. If a course counted for two or more categories, the course and credits were counted more than once on the student record. This was due to the inability of system data to determine where the course was applied on the student transcript. As a result of these multiple counts, there is some bias for over counting the number of general education courses and credits completed. While this is a limitation of this study, only approximately $10 \%$ of SUNY general education courses count for more than one category. In addition, this over counting provides a best case scenario for SUNY general education fulfillment. In order to be counted as fulfilling a category, a student must have earned greater than 0 earned credits in that category. Credits in each category were summed to get a measure of total general education credits. While the results were reported to the awarding campus, this does not necessarily mean that all general education credits were earned at the awarding campus. The student may have cross registered or had attended other campuses during the process, which is another limitation of the dataset.

