

## **Report of the General Education Advisory Committee (GEAC) Academic year 2022-2023.**

Prepared by Hanna Nekvasil, Chair      Reviewed by Braden Hosch, Deputy Chair

July 24, 2023

**Background:** In October of the Fall 2022 semester, Provost Lejuez proposed that a joint committee of faculty and administrators be assembled that would provide ongoing advice about implementation, evaluation, and assessment of Stony Brook University's general education curriculum (the SBC). This committee would further examine the extent to which the general education curriculum achieves its stated purpose for students, including outcomes for student learning, degree progress, and post-graduation outcomes, as well as impact on department, school and university operations.

A preliminary structure of the committee was discussed at a meeting of Provost Lejuez, Richard Larson (University Senate President), Hanna Nekvasil (Chair of the Undergraduate Council of the University Senate), Braden Hosch (Vice President for Educational and Institutional Effectiveness), Catherine Scott (Director of Educational Effectiveness), Kara Desanna (Assistant Provost for Academic Program and Curriculum Management), as well as several deans and representatives of other administrative units. The finalized structure of the committee, attached as Appendix A, was formulated and charged on October 4, 2022 by Provost Lejuez.

### **Committee membership 2022-23 Academic Year:**

**Chair:** Hanna Nekvasil, Department of Geosciences      **Deputy Chair:** Braden Hosch

- **Undergraduate Council representatives:** Hanna Nekvasil and Brenda Anderson
- **College of Arts & Sciences faculty representatives:**
  - Madeline Turan *Arts & Humanities:*
  - John Peter Gergen *Natural and Physical Sciences:*
  - Alexis Anagnostopoulos *Social and Behavioral Sciences:*
- **Faculty representatives from other Colleges/Schools that awards undergraduate degrees:**
  - Christine Pitocco *Business*
  - Brenda Hoffmann *Communication & Journalism*
  - Kevin McDonnell *Engineering & Applied Sciences*
  - Deborah Zelizer *Health Professions*
  - Katherine Aubrecht *Marine & Atmospheric Sciences*
  - Janet Galiczewski *Nursing*
  - Suzanne Velasquez *Social Welfare*
- **Administrators:**
  - Braden Hosch *Vice President for Educational and Institutional Effectiveness*
  - Kara Desanna *Assistant Provost for Academic Program and Curriculum Management*
  - Catherine Scott *Director of Educational Effectiveness*
  - Rose Tirota-Esposito *CELT Director*
- **Undergraduate Representative:**
  - Erica Ayisa-Boahene

Assisted by: Kimberly Hachmann *Accreditation and Educational Effectiveness Coordinator*  
Krista Emma *Educational Effectiveness Specialist*

**SUMMARY:** During the first academic year, the GEAC focused on three primary tasks:

1. ***Development of an Inquiry Framework.*** The goal of this was to develop a set of questions that would guide the committee in its evaluation of the SBC, from attainment of the overarching goals of General Education to student satisfaction and faculty burden. The Inquiry Document produced is attached as Appendix B. This is an open document and will continue to be modified.
2. ***Evaluation of the document ASSESSMENT OF THE STONY BROOK CURRICULUM 2019.*** The goal of this evaluation was to identify potential utility and limitations of this assessment approach and guide ongoing and future SBC assessment. The GEAC overall consensus was that the data were not usable to improve the curriculum. The summary of results of the analysis is attached as Appendix C.
3. ***Alignment of the SBC with the new SUNY Gen Ed Requirements.*** A rollout in Fall 2023 of a “good-faith” effort towards compliance of the SBC with the new SUNY Gen Ed requirements, became the primary concern of the GEAC committee during the latter part of the Spring semester.
  - Step 1 was to formulate new SLOs for the SBC “Demonstrate Versatility” Learning Objectives that would be in compliance with the SLOs for the SUNY Knowledge and Skills areas. For faculty transparency, efforts in this direction with the goal of achieving alignment with minor decertification of SBC courses were outlined to the entire University Senate by HN in Spring 2023.
  - ***This alignment was successfully accomplished and required no decertification of any course currently satisfying any of the SBC categories.*** Attached as Appendix D is the consensus document that describes the new SLOs for every SUNY Knowledge and Skills area.
  - The new SBC SLOs were approved by the Undergraduate Council and the Executive Committee of the University Senate. The new SLOs have already been incorporated into the Undergraduate Bulletin (by Kara Desanna and staff) in preparation for Fall 2023.

#### **GOALS for 2023-2024 Academic year:**

It is anticipated that the GEAC will focus on the following for the Fall 2023-24 academic year:

##### ***A. Continue alignment of the SUNY Gen Ed requirements with the SBC***

- Students cannot satisfy the 30 credits of Gen Ed required by SUNY simply by taking one course in each of 7 categories. If each course is 3 credits that leaves an additional 9 credits of Gen Ed to be satisfied. These additional credits could be obtained by taking more classes in additional K& S areas. Alternatively, the GEAC will consider whether students could meet this via courses for example in the SBC HFA+, STEM+ or SBS+ categories and assess the potential difficulties in obtaining such courses within the first 30 credits.
- Identify problems with availability of courses that could impede students’ ability to satisfy the SUNY Gen Ed requirements within the first 30 credits,

- SUNY's new Gen Ed guidelines require two core competencies, Critical Thinking and Reasoning (CTR) and Information Literacy (IL), but does not require specific courses to prove competency. The GEAC will develop guidelines for meeting these competencies by existing U1 and U2 courses, propose guidelines for future courses that intend to meet one or both competencies, and develop strategy with the Registrar's office for transcript indication that these competencies have been met.

**B. *Do we need the SBC courses beyond those required by SUNY?***

- The SBC imposes a variable and potentially much higher credit load requirement for students beyond those required by SUNY. The GEAC must carefully consider each additional SBC category beyond those equivalent to the SUNY K&S areas to determine the relevance of each to educating the student of today, and the impact on students, faculty, and infrastructure.
- What are the important skills a university-educated student should have upon completion of the degree to make a positive impact on society? How does the SBC need to change to provide these skills?

## Appendix A. General Education Advisory Committee

### Charge

The General Education Advisory Committee is jointly constituted by the Undergraduate Council of the University Senate and the Office of the Provost to provide ongoing advice about implementation, evaluation, and assessment of Stony Brook University's general education curriculum (the SBC). The Committee examines the extent to which the general education curriculum achieves its stated purpose for students, including outcomes for student learning, degree progress, and post-graduation outcomes, as well as impact on department, school and university operations.

[Certification and de-certification of individual courses fall outside the purview of the GEAC]

### Membership

Twelve faculty members appointed by the University Senate for 3-year terms, with the possibility of reappointment

- Two faculty members to represent the Undergraduate Council
- Three faculty members from the College of Arts & Sciences, to represent arts & humanities, natural and physical sciences, and social and behavioral sciences
- Seven faculty members, one from every other College/School that awards undergraduate degrees (Business, Communication & Journalism, Engineering & Applied Sciences, Health Professions, Marine & Atmospheric Sciences, Nursing, and Social Welfare)

Four administrators appointed by the Provost, to include

- An administrator with expertise in student learning assessment
- An administrator with expertise in institutional research
- An administrator with expertise in curriculum
- An administrator with expertise in learning and teaching

Two students appointed by Undergraduate Student Government to 1-year terms, with the possibility of reappointment

All committee members may vote on recommendations and other items considered by the committee. The committee will elect a faculty chair and establish other procedures necessary to conduct efficient meetings and effectively carry out its charge. In the event an appointed member must step down from the committee before the end of their term, a replacement shall be named to complete the remainder of the term.

### Responsibilities

- Explore and understand how well students master and demonstrate the articulated outcomes of Stony Brook's general education curriculum
- Recommend policies, structures, and mechanisms to ensure the general education curriculum fulfills its stated purpose, learning objectives, and external requirements; this includes making recommendations to the Assessment Council about parameters for the assessment of general education learning outcomes
- Consider periodically (no less than every five years) the purpose and scope of Stony Brook's general education curriculum in terms of relevance and impact on students and departments
- Validate that Stony Brook's general education program meets requirements of regulatory entities, including accreditors, the NY State Dept. of Education, and the State University of New York.
- Review reports and make recommendations about
  - The extent of student learning in each area of general education
  - The sufficiency of available courses in each area of general education

- The satisfaction of students and faculty about the general education curriculum
- Prepare for the Undergraduate Council of the University Senate and the Office of the Provost an annual report about how the Committee has addressed each point of its charge.

**Implementation**

Initial appointments of the twelve faculty members will be staggered, so that four faculty members cycle off the committee each year. Initial terms will run as below. Terms for all faculty members appointed in 2023 and later will be for three years.

| <u>Initial Term &amp; Duration</u> | <u>Representative</u>  |
|------------------------------------|--|
| 2022 - June 2025                   | 3 years UG Council rep 1   |
| 2022 - June 2024                   | 2 years UG Council rep 2   |
| 2022 - June 2023                   | 1 year Coll. of Arts & Sciences, Arts & Humanities rep             |
| 2022 - June 2025                   | 3 years Coll. of Arts & Sciences, Natural & Physical Sciences rep  |
| 2022 - June 2024                   | 2 years Coll. of Arts & Sciences, Social & Behavioral Sciences rep |
| 2022 - June 2023                   | 1 year College of Business rep                                     |
| 2022 - June 2025                   | 3 years School of Communication & Journalism rep                   |
| 2022 - June 2024                   | 2 years College of Engineering & Applied Sciences rep              |
| 2022 - June 2023                   | 1 year College of Health Professions rep                           |
| 2022 - June 2025                   | 3 years School of Marine & Atmospheric Sciences rep                |
| 2022 - June 2024                   | 2 years School of Nursing rep                                      |
| 2022 - June 2023                   | 1 year School of Social Welfare rep                                |

## Appendix B. GENERAL EDUCATION AT STONY BROOK UNIVERSITY:

A WORKING DOCUMENT PREPARED BY THE GENERAL EDUCATION ADVISORY COMMITTEE FOR THE INQUIRY STAGE

*The following are preliminary questions about the SBC volunteered by members of the GEAC and UGC with the directive of simply envisioning what they would like to know about the SBC.*

*These questions will assist with the following aspects of the charge of the GEAC:*

- Consider the purpose and scope of Stony Brook's general education curriculum in terms of societal relevance and educational impact on students.
- Explore and understand how well students mastered the articulated objectives of Stony Brook's general education curriculum. Make recommendations to the Assessment Council about parameters for the assessment of general education learning outcomes.
- Consider the impact of the SBC on student progress and departmental load, including the sufficiency of available courses in each area of general education
- Consider available data and make recommendations regarding assessment of the satisfaction of students and faculty with the general education curriculum.
- Validate that Stony Brook's general education program meets requirements of regulatory entities, including accreditors, the NY State Dept. of Education, and the State University of New York.

### A. BACKGROUND of SBC

- **What is the overarching goal of general education at SBU?**

<https://www.stonybrook.edu/commcms/du/decandsbc>

The University expects every graduate to have a liberal arts foundation and exposure to many different fields and disciplines including the arts, humanities, sciences, and social sciences

- **How does this goal compare to other SUNY University Centers and peer institutions?**

- **Why did the University develop the Stony Brook Curriculum (SBC)?**

<https://www.stonybrook.edu/commcms/du/decandsbc>

“The DEC general education system has been in effect since 1991. Given that much has changed in the world since the implementation of DEC, the University's faculty wanted to evaluate the current general education requirements and develop a curriculum best suited to today's 21st century student. After more than five years of research, discussion, and planning, the University unveiled the Stony Brook Curriculum (SBC). The SBC includes some of the elements of DEC, but *encourages a more interdisciplinary teaching approach* and *focuses on learning outcomes*. The SBC includes several new course offerings that are also available to students following the DEC, and has some new requirements in areas such as understanding technology, critical and ethical reasoning, and speaking before an audience. The SBC also offers an optional experiential learning opportunity, encouraging students to participate in an internship, study abroad, research, or other applicable activity.”

○ **When was the rollout of the SBC?**

Fall 2014

○ **What are the objectives of the SBC curriculum?**

[https://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/degree\\_requirements/stonybrookcurriculum.php](https://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/degree_requirements/stonybrookcurriculum.php)

The Stony Brook Curriculum includes both breadth and depth of study (provided by both the SBC learning objectives and the major requirements), as well as ensuring skills necessary for life-long learning. The SBC learning objectives are described in detail in a [designated section](#) of this Bulletin and are organized into **four categories**:

- Demonstrate Versatility
- Explore Interconnectedness
- Pursue Deeper Understanding
- Prepare for Life-Long Learning

The course section in this Bulletin includes information specifying the SBC learning objectives that each course satisfies, if any. Courses may simultaneously satisfy multiple graduation requirements, including but not limited to the SBC, the major, the minor and others.

**DEMONSTRATE VERSATILITY** by showing proficiency in each of eleven **fundamental learning objectives**:

- [Explore and Understand the Fine and Performing Arts \(ARTS\)](#)
- [Engage Global Issues \(GLO\)](#)
- [Address Problems using Critical Analysis and the Methods of the Humanities \(HUM\)](#)
- [Communicate in a Human Language Other than English \(LANG\)](#) (see [Note 1](#))
- [Master Quantitative Problem Solving \(QPS\)](#)
- [Understand, Observe, and Analyze Human Behavior and the Structure and Functioning of Society \(SBS\)](#)
- [Study the Natural World \(SNW\)](#)
- [Understand Technology \(TECH\)](#)
- [Understand the Political, Economic, Social, and Cultural History of the United States \(USA\)](#)
- [Write Effectively in English \(WRT\)](#)

Note 1: CEAS majors, the Athletic Training major, the Respiratory Care major, and the Clinical Laboratory Sciences major are exempt from the LANG learning objective. Students enrolled in the major in Social Work are exempt from the LANG learning objective, but are required to enroll in and pass with a letter grade of C or higher the first semester of an elementary foreign language course numbered 111, or satisfy through alternate methods (see [Communicate in a Human Language Other than English--LANG](#)).

**EXPLORE INTERCONNECTEDNESS** by completing a course that [examines significant relationships between Science or Technology and the Arts, Humanities, or Social Sciences \(STAS\)](#).

**PURSUE DEEPER UNDERSTANDING** by completing advanced studies in *three of four* distinct areas of knowledge. A "+" sign in the abbreviations for these learning objectives signifies that most courses in this category will be relatively advanced courses at the 200- to 400-level. These learning objectives are:

- [Experiential Learning \(EXP+\)](#)
- [Humanities and Fine Arts \(HFA+\)](#)
- [Social and Behavioral Sciences \(SBS+\)](#)
- [Science, Technology, Engineering, and Mathematics \(STEM+\)](#)

**PREPARE FOR LIFE-LONG LEARNING** by taking (in most cases) courses which may also satisfy other SBC, major or other degree requirements.

- [Practice and Respect Critical and Ethical Reasoning \(CER\)](#)
- [Respect Diversity and Foster Inclusiveness \(DIV\)](#) (see [Note 2](#) below)
- [Evaluate and Synthesize Researched Information \(ESI\)](#)
- [Speak Effectively before an Audience \(SPK\)](#)
- [Write Effectively within One's Discipline \(WRTD\)](#)

- **How were the 4 categories selected?**
- **Who designed the fundamental learning objectives for each category?** Was this wholly SBU internal committee driven or based on "best practices" standards from the outside?
- **For a proposed course, what body decided which category and fundamental learning objective it fell into?**
- **How did these requirements compare to SUNY Gen Ed requirements? If they differed, what was the justification for this difference?**
- **When was Respect for Diversity and Foster Inclusiveness (DIV) added to the SBC and how did adding an additional fundamental learning objective affect student progress?**
- **How is it decided if some majors or schools can opt out of a SBC category such as the "LANG"?**
- **Why was it decided that GenEd should include "deeper" understanding?**
- **Did we have benchmarks on how many GenEd credits would be too many and how many would be too few?** Yes SUNY Gen Ed requirements indicate a minimum; SBU can choose a maximum. What are practices at other universities?

## **B. OVERALL SUCCESS OF AND SATISFACTION WITH THE SBC**

- **Do graduates feel that through SBC courses they got "a liberal arts foundation and exposure to many different fields and disciplines including the arts, humanities, sciences, and social sciences"?**
- **Do graduates feel that the SBC courses they took**
  - taught them to be intellectually versatile
  - taught them to understand interconnectedness



- taught them how to pursue deeper understanding
  - prepared them for life-long learning
- **How about students 5 years post-graduation?**
  - **Do the students feel that SBC has prepared them for being informed citizens?**
  - **What do former students wish they had better preparation in?** What measures are currently in place to collect assessment data from students, faculty, and other key stakeholders?
  - **What aspect of the SBC presented the greatest impediment towards completion of the SBC requirements?**
  - **What aspect of the SBC did they find most important?**
  - **How do current students (in the middle of their degree) feel about the SBC courses they have taken so far?**

### C. DETAILS ON IMPLEMENTATION, AVAILABILITY, IMPACT, AND EFFECTIVENESS

- **When do students entering as freshmen take the SBC courses?** Histogram of SBC load vs U status would help.
  - Is there a different distribution of U status and SBC course load depending upon college, or upon major category (e.g, natural sciences vs. HUM)?
- **How many SBC courses do students take to satisfy the SBC learning objectives?**
  - How many SBC learning objectives are satisfied purely by required courses for the major? How does this average differ by college; by major category?
  - How many courses used to satisfy the SBC requirements are taken outside of the subject code for the major? (The purpose is to see exposure to other disciplines)
  - How many courses used to satisfy the SBC requirements are taken within the subject code of the major but NOT required for the major?
  - How do the number of SBC courses (both with and without the three-letter code of the major), that is, courses *not* required for the major but taken to satisfy the SBC requirements, compare to the number of courses required under the DEC requirements?
- **How is consistency maintained among departments in Prepare for Life-long Learning (for example WRTD)?** Should there be specific guidelines?
- **How many SBC courses are interdisciplinary?** This is after all a primary reason for transitioning from the DEC to the SBC (see above)
- **Are there access bottlenecks for certain categories?**
  - Do students feel that they have choices or is selection mainly by schedule/availability?
  - Do students whose majors do not offer courses in Life-long Learning find it difficult to find these courses?

- **Are there a sufficient number and distribution of multiply-certified courses offered so that CEAS students, especially those in BE programs, can graduate in 4 years without undue hardship (e.g., financial hardship incurred by needing to take summer courses?)**
- **How do the Honors College general education objectives map onto the SBC objectives?**
- **When students take several multiple-category SBCs and therefore have fewer overall credits do they run into TAP eligibility problems?**
- **Is the SUNY transfer path for courses satisfying SBCs well-articulated? \**
- **How have non-major SBC courses impacted faculty teaching load? How evenly is this spread out across disciplines?**
- **Direct assessment of outcomes for attainment of the objectives of each category.** What would the timeframe/process look like? What has been done and what should be done?
  - To what extent have students mastered the learning outcomes for each SBC course? How can mastery be distinguished from preexisting knowledge in order to assess the effectiveness of the course?
  - In what areas do students exhibit particular strengths and areas for improvement? How can this be used to improve the course?
  - Could measures of student proficiency be rank ordered to show this across SBC areas? Rank ordered within the objectives of each area?
  - How does proficiency in each SBC objective differ by major? Presumably STEM majors (even early in their programs) are all proficient in Mastering Quantitative Problem Solving (QPS), but what about humanities majors? Social sciences?

#### **D. THE FUTURE OF GEN ED AT SBU**

- **Is the overarching goal still relevant?**
- **What is the evidence-based process for periodically reviewing and revising learning objectives? (Brenda)**
  - How often should learning objectives be reviewed/revised? Are the SBC fundamental learning objectives still relevant for the students 8 years after inception? e.g., Should the SBC courses do a more thorough job of addressing pressing questions of gender, the environment, [racial reckoning](#), and disinformation?
  - What stakeholders should be involved in the review and implementation?
  - What data should be collected to drive decisions? How long do we need to collect this data (in the same way with the same objectives) before we are comfortable using it to approach potential revisions?

- **Should there be a re-certification of SBC courses at some point in time after their initial approval? Who should do this; what is the timeframe?**
- **How do the SBC categories and fundamental learning objectives map onto the new SUNY Gen Ed requirements?**
  - How will Stony Brook address SUNY's expectation that its GE requirements should be completed in the first 60 credits? How will this impact students' ability to advance in their major?
  - How will Stony Brook adapt its existing SLOs with SUNY's incoming SLOs?
- **The design, implementation and assessment of Gen Ed objectives involves costs. Is there a mechanism through which we can ensure that those costs are considered alongside with the benefits of any existing or proposed policy?**

Appendix C. **GEAC and UGC Comments on**

**ASSESSMENT OF THE STONY BROOK CURRICULUM 2019**

**1. SBC TERMINOLOGY OVERVIEW**

**The SBC learning objectives** are organized into **four categories**:

- Demonstrate Versatility
- Explore Interconnectedness
- Pursue Deeper Understanding
- Prepare for Life-Long Learning

**Each category** has several **fundamental learning objectives**

For example, DEMONSTRATE VERSATILITY by showing proficiency in each of eleven fundamental learning objectives:

- Explore and Understand the Fine and Performing Arts (ARTS)
- Engage Global Issues (GLO)
- Address Problems using Critical Analysis and the Methods of the Humanities (HUM)
- Communicate in a Human Language Other than English (LANG) (see Note 1)
- Master Quantitative Problem Solving (QPS)
- Understand, Observe, and Analyze Human Behavior and the Structure and Functioning of Society (SBS)
- Study the Natural World (SNW)
- Understand Technology (TECH)
- Understand the Political, Economic, Social, and Cultural History of the United States (USA)
- Write Effectively in English (WRT)

**Each fundamental learning objective** has several **learning outcomes**

**2. FUNDAMENTALS OF THE ASSESSMENT.**

**Goal of the Assessment:** “Throughout the project, our intent was to induce improvement in the curriculum.”

*The GEAC overall consensus was that the data were not usable to improve the curriculum.*

**Specificity of the Assessment:** Attainment of the SBC course learning outcomes for SBC courses covering specific fundamental learning objectives.

*The GEAC noted that this assessment did not evaluate the success of the learning outcomes themselves, the fundamental learning objectives, or the four categories of the SBC, in achieving the overall goals of general education at SBU, rather it focused on a small subset of individual courses.*

### 3. PROCESS OVERVIEW:

- Evidence was collected on 15 of the 19 fundamental learning objectives (62 of the 69 learning outcomes) among Demonstrate Versatility, Explore Interconnectedness, and Prepare for Life-Long Learning.
- Faculty committees developed 15 “unique SBC Evaluation Rubrics” for the faculty to use when reporting the results of their assessment.

**GEAC explanatory note:** *Individual instructors designed and administered an evaluative tool to determine how well the students achieved the SBC learning outcomes in their class and **then** used the rubric to transmit the results for tabulation.*

- Instructors in the course sections selected for assessment used the SBC Evaluation Rubric to evaluate their students on a five-point scale: Absent (1) Beginning (2), Developing (3), Accomplished (4) and Exemplary (5). The faculty chose a five-point scale for its intuitive alignment with the traditional ABCDF grading scheme.
- Instructors evaluated their students on achievement of each learning outcome.

**GEAC explanatory note:** *This was based on instructor selected/developed vehicle of evaluation, such as, final project, assignment, presentation, embedded questions on a final exam, specifically designed quiz, etc..*

- Results reflect achievement of each student as measured directly **by faculty** for each learning outcome of each SBC learning objective, (e.g., ARTS1, ARTS2, etc.), as well as the unweighted average of evaluations among all learning outcomes within the specific SBC objective (e.g., ARTS average), and the unweighted average of evaluations for all objectives across all SBC (SBC average).
- Local measures included direct evaluations by faculty and indirect measures from course evaluations. A subset of graduating senior students, faculty, and staff was surveyed on the subject of the Stony Brook Curriculum.
- Additional indirect measures included those from the National Survey of Student Engagement and the SUNY Student Opinion Survey, as conducted among Students at Stony Brook University.

### 4. GEAC AND UGC COMMENTS ON THE ASSESSMENT

#### **Overall positives:**

- The committee collected a significant amount of data within a short time period.
- The prior approach was reasonably inclusive, relying upon faculty members (who have the most comprehensive knowledge of their courses) to design, conduct, and report results of assessment of student achievement of SBC learning outcomes. This is in alignment with standard assessment practices.
- The approach was properly keyed to the stated learning outcomes of the SBC.
- This work was highly valuable for our reaccreditation process, as one component of MSCHE Standard V expects “organized and systematic assessments, conducted by faculty and/or appropriate professionals.”

#### **Concerns:**

**Overarching concern:** The data could not universally be used for comparison among SBC courses with the same fundamental learning objectives because of differences in assessment vehicles and rotation of instructors, nor could the data be reliably used for improving the curriculum.

*Specific concerns:*

- Assessment of student achievement of SBC learning outcomes for any fundamental learning objective requires an independent measure outside of the normal measures used to test mastery of the technical content of the course. Lack of clear Instructions regarding how to develop such a measure, coupled with the extra effort required from faculty to develop such a measure made it difficult to know how well such a tool was formulated and implemented. If class grades were used to assess student attainment of SBC learning goals, the data could be skewed towards low numbers of students attaining the SBC learning outcomes in highly technical courses (e.g., science courses). With no clear instruction of this to the faculty and the use of a 5-level scale rubric, it must be assumed that some (many?) instructors simply used their course grades.
- Since each instructor designed her/his own assessment vehicle (the specifics of which were not presented in the data), and the results then imported into the rubric, comparisons of student success across classes even for the same fundamental learning objective may not be usable, even though an individual instructor could potentially use their own data for course improvement.
- Throughout the document, direct evaluations by faculty and indirect measures from course evaluations by students were juxtaposed, making it appear that they could be compared. Indirect measures from student course evaluations may not correlate with the instructor's evaluation. Questions such as "how much did you learn in the course" cannot be used to improve the course unless student knowledge of the material is assessed *prior* to taking the course. For example: A Spanish-speaking student in a Spanish language class may indicate that no learning took place, even as the instructor indicated that the student performed exemplary.

Furthermore, student course evaluations assess whether students *perceive* mastery of a learning objective. This addresses perceptions of the *value* of their education. It is questionable whether these perceptions have any value for assessment. Course evaluation questions regarding learning outcomes raise the concern, "do the students remember the learning outcomes they should be attaining?"

- Where in the process of assessment is there room for the inclusion of qualitative evaluations of the learning outcomes? Qualitative observations may be important for determining priorities in direct assessment measures.
- Data on job placement rates, salaries, retention rates, graduation rates, course grades, surveys of students or alumni, etc. were not provided and are important in the evaluation efforts.

## 5. RECOMMENDATIONS:

Two cases are described based on whether Middle States best practices allow course grades to be used as the indicator of achievement of the SBC course learning outcomes.

### A. If course grades *can* be used to assess student attainment of learning outcomes.

- i. A SBC curriculum committee should be set up to ensure that for new SBC course proposals *the primary course learning objectives match the fundamental learning objectives of the SBC category*. This committee would also oversee equality of course

- rigor among courses of the same category and compare grade distributions in existing courses.
- ii. Only courses designed to satisfy specific SBC learning objectives and successfully shown this in curriculum review should be directly assessed. Data can be obtained by the assessment team directly from the class grade roster on Brightspace with no additional effort by the instructor. Conversion to the use of grades would increase sample size while reducing faculty effort.
  - iii. The subset of SBC designed courses assessed should be random rather than selected by a committee.
  - iv. Courses designed primarily for technical information would no longer have a SBC designation (e.g., CHE131). Instead, some subset of SBC learning objectives could be met based purely on program completion – not tied to a specific course. For example, all graduating students with a science major will be marked as having completed SNW. This committee or the UGC would canvass departments to indicate which learning goals their students automatically satisfy as they proceed through their programs (e.g., if psychology requires statistics of each student, then regardless of the level of statistics class their majors take, each student major will have completed the QPS requirement upon successfully satisfying the major requirements).
  - v. Achievement of learning goals could be streamlined to a 2 levels (Satisfactory or Not).

**B. If course grades CANNOT be used; instead a separate assessment vehicle must be developed**

- i) Instructors need explicitly outlined expectations, guidelines, and examples of assessment vehicles designed for specific fundamental learning objectives.
- ii) The requirement for using the SBC rubric should be removed. It adds one more layer of effort on the part of the instructor. Assessment committees should be able to mine data directly from the results of the instructors assessment vehicle in Brightspace.
- iii) Assessment vehicles that will be used to evaluate student attainment of SBC learning outcomes should be spelled out in the course proposals for SBC courses.
- iv) For courses heavy on technical material, consider removing the course-linked SBC fundamental learning objectives. These courses are already grading intense for the instructor. Instead, some subset of SBC learning objectives could be met based purely on program completion – not tied to a specific course. For example, all graduating students with a science major will be marked as having completed SNW. This committee or the UGC would canvass departments to indicate which learning goals their students automatically satisfy as they proceed through their programs (e.g., if psychology requires statistics of each student, then regardless of the level of statistics class their majors take, each student major will have completed the QPS requirement upon successfully satisfying the major requirements).
- v) All courses labelled with a SBC fundamental learning objective will be required to use an assessment vehicle for student achievement of the relevant SBC learning outcomes. However, the assessment committee decides which courses will have this data mined and with what frequency.
- vi) Guidance must be given to instructors as to what to do if a student shows adequate mastery of the SBC learning objectives but fails the technical part of the course. Courses for which this is common may have to be removed from the SBC curriculum.

## Attachment D. ALIGNMENT OF STONY BROOK UNIVERSITY'S GEN ED WITH THE SUNY REQUIREMENTS SPRING 2023

### 1. BACKGROUND

SUNY is transitioning its general education requirements to the General Education (GE) Framework. The rollout of this is Fall 2023, so we would like make as many **existing** SBC accredited courses compliant with the new Gen Ed requirements.

Effective Fall 2023, SUNY is requiring students to complete 30 credits across 7 categories that are broken down as follows:

- Four Knowledge and Skill (K&S) Areas
  - Communication – Written and Oral
  - Diversity: Equity, Inclusion, and Social Justice
  - Mathematics (and Quantitative Reasoning)
  - Natural Sciences (and Scientific Reasoning)
- At least three additional K&S Areas chosen from:
  - Humanities
  - Social Sciences
  - The Arts
  - US History and Civic Engagement
  - World History and Global Awareness
  - World Languages

Students are also expected to complete two additional Core Competencies that do not count towards the 30-credit minimum:

- Core Competencies
  - Critical Thinking and Reasoning
  - Information Literacy

### 2. TASK 1

Starting with Step A,

- A. Try to develop SBC learning outcome wordage for the that aligns more closely with the SUNY SLO's for the Knowledge and Skills areas in order to minimize the number of existing classes that will be impacted (i.e., out of compliance). Hopefully, the revisions will be general (inclusive) enough that it can accommodate varied subsets of the SBC SLOs for that category. This will



remove the problem of some SBC categories requiring only for example, 2 of 4 SLOs, which could make some courses out of compliance with the SUNY SLOs as they are currently written.

GEAC Consensus reached on 5/8/2023, UGC consensus reached 5/20, Senate Executive Committee Richard Larson 5/24

- B.** For the category assigned, looking at the summaries in the bulletin, indicate which courses would likely no longer align with the new SLOs.

GEAC consensus that no courses currently designated for SBC credit would be out of compliance 5/15

- C.** Contact instructors to find out i.) if they feel their course meets the reworded SLO and if not, (ii) could it with only minor tweaks.

Not necessary because of B. above.

**Step A Details** Faculty committee members have each been assigned two categories to look at in teams of two.

| <b>GEAC faculty member</b> | <b>Department</b>    | <b>SBC fundamental learning outcomes</b> |      |
|----------------------------|----------------------|--|------|
| Alexis Anagnostopoulos     | CAS SS Economics     | SBS                                      | HUM  |
| Brenda Anderson            | UGC Psychology       | QPS                                      | SBS  |
| Brenda Hoffman             | SCJ                  | SPK                                      | WRT  |
| Christine Pitocco          | Business             | SPK                                      | WRT  |
| Deborah Zelizer            | Health Sciences      | HUM                                      | CER  |
| Janet Galiczewski          | SON Nursing          | USA                                      | CER  |
|                            | CAS Nat Sci          |  |      |
| John Peter Gergen          | Biochemistry         | ARTS                                     | ESI  |
| Katherine Aubrecht         | SOMAS                | SNW                                      | USA  |
| Kevin McDonnell            | ENG Computer Science | QPS                                      | ARTS |
| Madeline Turan             | CAS HUM LCS          | LANG                                     | GLO  |
| Suzanne Velasquez          | SSW                  | DIV                                      | LANG |
|                            | CAS Nat Sci          |  |      |
| Hanna Nekvasil             | Geosciences          | SNW                                      | GLO  |

In the accompanying tables, the original SBC SLO's and additional constraints for each fundamental learning objective; SUNY SLOs in each category, and the new SLO's are indicated.

**Communication – Written and Oral (SUNY) / Speak Effectively before an Audience (SPK)**

*Note1 : We have two SBC fundamental learning objectives that are required for this one SUNY knowledge and Skill Area, WRT and SPK.*

*Note2: Although SLO in the UG Bulletin, means Student Learning Outcomes, we have chosen to use the existing wording which implies Student Learning Objectives.*

| <b>Current SPK SLOs</b>  | <b>SUNY SLOs</b>   | <b>New SPK SLOs</b>  |
|--|--|--|
| Research a topic, develop an oral argument and organize supporting details                               | Research a topic, develop an argument, and organize supporting details   | Research a topic, develop an oral argument and organize supporting details   |
| Deliver a proficient and substantial oral presentation for the intended audience using appropriate media | Demonstrate coherent college-level communication (written and oral) that informs, persuades, or otherwise engages with an audience | Deliver a proficient and substantial oral presentation using appropriate media that engages with an intended audience. |
| Evaluate oral presentations of others according to specific criteria.                                    | Evaluate communication for substance, bias, and intended effect  | Evaluate oral presentations of others for substance, bias, and intended effect   |
| <i>3/3 SLOs required</i>   | Demonstrate the ability to revise and improve written and oral communication   | Apply feedback to revise oral communication  |
|  | <i>All SLOs required</i>   | <i>All SLO's required</i>  |

**Communication – Written and Oral (SUNY) / Write Effectively in English (WRT)**

| <b>Current WRT SLOs</b>   | <b>SUNY SLOs</b>  | <b>New WRT SLOs</b>  |
|---|---|--|
| <p>Research a topic, develop an argument, and organize supporting details</p> <p>Produce coherent texts within common college-level written forms.</p> <p>Demonstrate the ability to revise and improve such texts.</p> <p><i>3/3 SLOs required</i></p> | <p>Research a topic, develop an argument, and organize supporting details;</p> <p>Demonstrate coherent college-level communication (written and oral) that informs, persuades, or otherwise engages with an audience</p> <p>Evaluate communication for substance, bias, and intended effect</p> <p>Demonstrate the ability to revise and improve written and oral communication</p> <p><i>All SLOs required</i></p> | <p>Research a topic, develop an argument, and organize supporting details;</p> <p>Produce a coherent college-level written document that engages with an intended reader</p> <p>Evaluate written communications for substance, bias, and intended effect</p> <p>Demonstrate the ability to revise and improve written communications.</p> <p><i>All SLO's required</i></p> |

**Diversity, Equity, Inclusion, and Social Justice (SUNY)/ Respect Diversity and Foster Inclusiveness (DIV)**

| <b>Current DIV SLOs</b>  | <b>SUNY SLOs</b>   | <b>New DIV SLOs</b>  |
|--|--|--|
| <p>Identify systematic barriers to equality and inclusiveness and discuss how those barriers and biases affect the perceptions of others</p> <p>Examine how human and cultural similarities and differences shape personal identities and influence structural and institutional inequities</p> <p>Describe and analyze the impact of power and privilege on self and society in the context of diversity and inclusion</p> <p>Critically reflect upon how one's own personal and cultural presuppositions affect one's values and relationships</p> <p><i>2/4 SLOs required</i></p> | <p>Describe the historical and contemporary societal factors that shape the development of individual and group identity involving race, class, and gender</p> <p>Analyze the role that complex networks of social structures and systems play in the creation and perpetuation of the dynamics of power, privilege, oppression, and opportunity</p> <p>Apply the principles of rights, access, equity, and autonomous participation to past, current, or future social justice action</p> <p><i>All SLOs required</i></p> | <p>Describe the historical and contemporary societal factors that shape the development of individual and group identity involving race, class, and gender</p> <p>Analyze the role that complex networks of social structures and systems play in the creation and perpetuation of the dynamics of power, bias, privilege, oppression, and opportunity</p> <p>Apply the principles of rights, access, equity, and autonomous participation to past, current, or future social justice action.</p> <p>Critically reflect upon how one's own personal and cultural presuppositions affect one's values and relationships</p> <p><i>All SLOs required</i></p> |

**Mathematics (and Quantitative Reasoning) / Master Quantitative Problem Solving (QPS)**

| <b>Current QPS SLOs</b>  | <b>SUNY SLOs</b>   | <b>New QPS SLOs</b>  |
|--|--|--|
| Interpret and draw inferences from mathematical models such as formulas, graphs, tables, or schematics | Interpret and draw inferences from appropriate mathematical models such as formulas, graphs, tables, or schematics | Interpret and draw inferences from appropriate mathematical models such as formulas, graphs, tables, or schematics |
| Represent mathematical information symbolically, visually, numerically, and verbally                   | Represent mathematical information symbolically, visually, numerically, or verbally as appropriate                 | Represent mathematical information symbolically, visually, numerically, or verbally as appropriate                 |
| Employ quantitative methods such as algebra, geometry, calculus, or statistics to solve problems       | Employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems.                | Employ appropriate quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems.    |
| Estimate and check mathematical results for reasonableness   | <i>All SLOs required</i>   | <i>All SLOs required</i>   |
| Recognize the limits of mathematical and statistical methods   |  |  |
| <i>4/5 SLOs required</i>   |  |  |

**Natural Sciences (and Scientific Reasoning) (SUNY) / Study the Natural World (SNW)**

| <b>Current SNW SLOs</b>   | <b>SUNY SLOs</b>   | <b>New SNW SLOs</b>   |
|---|--|---|
| <p>Understand the methods scientists use to explore natural phenomena including observation, hypothesis development, measurement and data collection, experimentation, and evaluation of evidence (Mandatory SLO)</p> <p>Assess scientific information and understand the application of scientific data, concepts, and models in the natural sciences</p> <p>Understand the natural world and the major principles and concepts that form the basis of knowledge in the natural sciences</p> <p>Make informed decisions on contemporary issues involving scientific information</p> <p><i>3/4 SLOs required, mandatory first SLO</i></p> | <p>An 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 data analysis or mathematical modeling</p> <p>Application of scientific data, concepts, and models in one of the natural sciences</p> <p><i>All SLOs required</i></p> | <p><b>Explain the methods scientists use to explore natural phenomena including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of data analysis or mathematical modeling.</b></p> <p><b>Explain the application of scientific data, concepts, and models in one of the natural sciences.</b></p> <p><i>All SLOs required</i></p> |

**Humanities (SUNY)/ Address Problems using Critical Analysis and the Methods of the Humanities (HUM)**

| <b>Current HUM SLOs</b>   | <b>SUNY SLOs</b>  | <b>New HUM SLOs</b>  |
|---|---|--|
| <p>Understand the major principles and concepts that form the basis of knowledge in the humanities</p> <p>Understand the theoretical concepts that undergird one or more of the humanities</p> <p>Develop an awareness of some of the key historical themes of one or more of the humanities</p> <p>Develop an awareness of the multi- or interdisciplinary nature of issues within the humanities</p> <p>Develop an awareness of the contexts (historical, social, geographical, moral) in which these issues emerged</p> <p>Develop the verbal and written skills to articulate valid arguments on these issues</p> <p><i>4/6 SLOs required</i></p> | <p>Demonstrate knowledge of the conventions and methods of at least one of the humanities</p> <p>Recognize and analyze nuance and complexity of meaning through critical reflections on text, visual images, or artifacts</p> <p><i>All SLOs required</i></p> | <p>Demonstrate knowledge of the conventions and methods of study in at least one of the humanities.</p> <p>Recognize and analyze nuance and interdisciplinary complexity of meaning through critical reflection on text, visual images, or artifacts</p> <p><i>All SLOs required</i></p> |

**Social Sciences (SUNY) / Understand, Observe, and Analyze Human Behavior and the Structure and Functioning of Society (SBS)**

| <b>Current SBS SLOs</b>   | <b>SUNY SLOs</b>   | <b>New SBS SLOs</b>   |
|---|--|---|
| <p>Understand the major concepts and phenomena that form the basis of knowledge in the social sciences</p> <p>Understand methods of inquiry into the social world and the methods social and behavioral scientists use to explore social phenomena including observation, hypothesis development, measurement and data collection, experimentation, and the evaluation and application of evidence</p> <p>Understand various types of theory (e.g., behavioral, political, economic, linguistic) that organize predictions and evidence in the social sciences</p> <p>Skillfully interpret and form educated opinions on social science issues</p> <p><i>2/4 SLOs required</i></p> <p><i>“and have broad content in a specific area of the social sciences”- this aligns with SUNY SLO 1.</i></p> | <p>Describe major concepts and theories of at least one discipline in the social sciences</p> <p>Demonstrate an understanding of the methods social scientists use to explore social phenomena</p> <p><i>All SLOs required</i></p> | <p>Describe major concepts and theories of at least one discipline in the social sciences</p> <p>Describe the methods social scientists use to explore social phenomena</p> <p><i>All SLOs required</i></p> |



**The Arts (SUNY)/ Explore and Understand the Fine and Performing Arts (ARTS)**

| <b>Current ARTS SLOs</b>  | <b>SUNY SLO</b>   | <b>New ARTS SLOs</b>   |
|---|---|--|
| <p>Understand the materials, forms, and/or styles of art through study of arts theories and the works themselves</p> <p>Develop an understanding of works of art and their practitioners through an examination of the works in the historical and cultural context in which the art was or is created</p> <p>Understand ideas, materials, technical skills, and forms of art in order to express oneself creatively through an artistic medium</p> <p>Develop tools of aesthetic discourse through contact with works of art – as well as through writings on art – related to its critical understanding, cultural placement, and appreciation</p> <p><i>1/4 SLOs required also</i></p> <p>“Certified courses will devote significant time to the consideration of art and its principles, through historical, theoretical, technical and/or critical writings about art, through the examination of works of art, through the creation of art, or combinations thereof.”</p> | <p>Demonstrate an understanding of at least one principal form of artistic expression and the creative process inherent therein.</p> <p><i>SLO required</i></p> | <p>Demonstrate knowledge of at least one principal form of artistic expression and its creative process through the creation of art, the examination of works of art, or the study of historical, cultural, theoretical, technical or critical writings about art.</p> |

**U.S. History and Civic Engagement (SUNY) / Understand the Political, Economic, Social, and Cultural History of the United States (USA)**

| <b>Current USA SLOs</b>   | <b>SUNY SLOs</b>  | <b>New USA SLOs</b>  |
|---|---|--|
| <p>Demonstrate knowledge and understanding of U.S. history and society</p> <p>Demonstrate knowledge of a subculture or relationships among subcultures within U.S. society</p> <p>Demonstrate knowledge and understanding of the rights and responsibilities of citizenship, and the workings of federal, state, and municipal governments in the United States</p> <p><i>2/3 SLOs required</i></p> <p>A certified course shall demonstrate a serious, disciplined engagement with political, economic, social, and/or cultural aspects of U.S. society, past or present.</p> | <p>Demonstrate understanding of United States' society and/or history, including the diversity of individuals and communities that make up the nation</p> <p>Understand the role of individual participation in US communities and government</p> <p>Apply historical and contemporary evidence to draw, support, or verify conclusions</p> <p><i>All SLOs required</i></p> | <p>Describe aspects of US society and/or history, including the diversity of individuals and communities that make up the nation.</p> <p>Explain the role of individual participation in US communities and government</p> <p>Apply historical and contemporary evidence to draw, support, or verify conclusions</p> <p><i>All SLOs required</i></p> |

**World History and Global Awareness (SUNY)/ Engage Global Issues (GLO)**

| <b>Current GLO SLOs</b>   | <b>SUNY SLOs</b>   | <b>New GLO SLOs</b>   |
|---|--|---|
| <p>Demonstrate knowledge and understanding of a society or culture outside of the United States</p> <p>Demonstrate knowledge and understanding of the interconnectedness of the world, past and present</p> <p><i>1/2 SLOs required.. but!</i></p> <p><b>“A significant portion of the course must address the diversity and interconnectedness of the world’s societies and cultures.”</b></p> | <p>Demonstrate knowledge of a broad outline of world history and/or the development of the distinctive features of at least one civilization or culture in relation to other regions of the world</p> <p>Demonstrate an understanding of the structures, systems, and interrelationships among civilizations and cultures within historical and/or contemporary contexts, and their impact on wellbeing and sustainability</p> <p><i>All SLOs required</i></p> | <p>Demonstrate knowledge of the development of distinctive features of at least one civilization or culture (outside of the USA) in relation to other regions of the world.</p> <p>Demonstrate knowledge of the interrelationships among civilizations and cultures within historical and/or contemporary contexts, and their impact on wellbeing and sustainability.</p> <p><i>All SLOs required</i></p> |

**World Languages (SUNY)/ Communicate in a Human Language Other Than English (LANG)**

| <b>Current LANG SLOs</b>  | <b>SUNY SLOs</b>   | <b>New LANG SLOs</b>  |
|---|--|---|
| <p>Write, read, listen and speak with basic proficiency in at least one non-English language</p> <p>Demonstrate an understanding of the people and culture associated with that language</p> <p>Present coherent information and ideas in that language to listeners or readers about the people and culture of that language <i>3/3 SLOs required (??)</i></p> | <p>Exhibit basic proficiency in the understanding and use of a world language</p> <p>Demonstrate knowledge of the distinctive features of culture(s) associated with the language they are studying</p> <p><i>All SLOs required</i></p> <p><i>Note this does not say “NOT English”</i></p> | <p><b>Exhibit basic communicative proficiency (as defined by ACTFL) in a human language other than English.</b></p> <p><b>Demonstrate knowledge of the distinctive features of culture(s) associated with the language studied.</b></p> |

**Critical Thinking and Reasoning vs Practice and Respect Critical and Ethical Reasoning (CER)**

|   |  |  |  |
|---|--|--|--|
| <p><b>Current CER SLOs</b></p> <p>Understand and differentiate ethical, legal, social justice, and political issues</p> <p>Demonstrate an ability to distinguish among the ethical principles guiding human behavior</p> <p>Apply ethical reasoning to a variety of situations and human experience</p> <p><i>1/3 SLOs required</i></p> <p><i>Ethical reasoning is left out of SUNY SLO</i></p> | <p><i>Note: CER as written does NOT comply with SUNY CTR, but CTR does not need a separate course since it is not a K&amp;S area, but rather is a core competency.</i></p> <p><i>SBU needs to decide if we keep CER as a university requirement.</i></p> | <p><b>SUNY CTR SLOs –this is not CER</b></p> <p>Clearly articulate an issue or problem</p> <p>Identify, analyze, and evaluate ideas, data, and arguments as they occur in their own or others’ work</p> <p>Acknowledge limitations such as perspective and bias</p> <p>Develop well-reasoned (logical) arguments to form judgments and/or draw conclusions</p> <p><i>All SLOs required</i></p> | <p><b>If CTR is folded into a course; the course must require the students to:</b></p> <p><i>Clearly articulate an issue or problem</i></p> <p><i>Identify, analyze, and evaluate ideas, data, and arguments as they occur in their own or others’ work</i></p> <p><i>Acknowledge limitations such as perspective and bias</i></p> <p><i>Develop well-reasoned (logical) arguments to form judgments and/or draw conclusions</i></p> |
|---|--|--|--|

**Information Literacy (SUNY / Evaluate and Synthesize Researched Information (ESI)**

| <b>Current ESI SLOs</b>   | <b>SUNY SLOs</b>  | <b>Proposed ESI SLOs</b>  |
|---|---|---|
| <p>Locate and organize information from a variety of appropriate sources</p> <p>Analyze the accuracy of information and the credibility of sources</p> <p>Use information ethically and responsibly</p> <p>Determine the relevance of information</p> <p><i>4/4 SLOs required</i></p> <p><i>Here is where ethics comes into The SUNY SLOs</i></p> | <p>Locate information effectively using tools appropriate to their need and discipline</p> <p>Evaluate information with an awareness of authority, validity, and bias</p> <p>Demonstrate an understanding of the ethical dimensions of information use, creation, and dissemination</p> <p><i>All SLOs required</i></p> | <p><b>This SUNY category is a core competency and does not need a special course as this can be obtained in many college-level courses.</b></p> <p><b>Furthermore, as ESI often accompanies upperdivision course in majors, ESI designation of lower level courses is needed.</b></p> <p><i>To have a ESI designation, students must be given the opportunity to:</i></p> <p><i>Locate information effectively using discipline-appropriate tools.</i></p> <p><i>Evaluate information with an awareness of authority, validity, and bias</i></p> <p><i>Demonstrate an understanding of the ethical dimensions of information use, creation, and dissemination.</i></p> <p>Note ethical use of information was a SBC SLO for this so CER could be folded into ESI rather than a separate category if we chose to get rid of the SBC CER requirement.</p> |