Progress Report to the
Middle States Commission on Higher Education
from
SUNY Broome Community College
P.O. Box 1017, Binghamton, NY 13902

Dr. Kevin Drumm, President

October 1, 2017.

Subject of the Follow-Up Report:

To request a progress report, due on October 1, 2017, further documenting:

(1) Development and implementation of a comprehensive institutional strategic plan that links long-range planning to decision making and budgeting processes (Standard 2)

(2) Steps taken to improve the college catalog including clearly articulated statements of student learning outcomes for all degree and certificate programs (standard 6)

(3) Implementation of the revised general education curriculum and implementation of an assessment process for general education (Standard 12).

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SECTION 1

Introduction –

SUNY (State University of New York) Broome Community College is a comprehensive community college supervised by SUNY, sponsored by the County of Broome, and governed by a ten member Board of Trustees. The College is one of thirty SUNY community colleges in New York. In 1946, the College was chartered as the New York Institute of Applied Arts and Sciences at Binghamton. In 1971, the College assumed the name Broome Community College and renamed in 2013 to SUNY Broome Community College. SUNY Broome's campus is located in the Town of Dickinson, three miles north of Binghamton, in the Southern Tier of New York State (NYS).

Mission. The College developed a new mission statement since the submission of the Periodic Review Report in June 2016 as part of its newly developed five-year (2017-2022) strategic plan. Per the new Mission Statement, "SUNY Broome Community College supports all members of the learning community by creating access to inclusive, diverse educational experiences. Success is achieved through the provision of innovative academics, transformative student support, and meaningful civic & community engagement. We realize our mission by fostering an environment that exemplifies the college's institutional goals to the highest quality". This mission statement exemplifies the spirit of the new vision statement: "Learning today, transforming tomorrow". The vision statement expresses the College's dedication to providing teaching and student support via varied modalities to a diverse student body, with the aim of transforming their academic life and their future.

Enrollment. Total enrollment for the Fall 2017 semester after the third week of classes was 7,294, compared to a Fall 2016 enrollment of 6,489 around the same time. About two-thirds of the students are enrolled full-time while one-third are part-time. The number of local high schools partnering with the College in the Fast Forward program increased from 20 to 24. The addition of the four high schools is evident in the increased enrollment for Fall 2017. Teaching faculty headcount for the 2015-2016 academic year was 432, comprised of 166 full-time and 266 adjunct faculty and resulting in a 20:1 student to faculty ratio.

The college has advanced its commitment to investing in student success by furthering the cause of Achieving The Dream (ATD) initiative aimed at student success. The model is internally known as Achieving Success. The Achieving Success team has developed a plan of action, which is being implemented in Fall 2017 to address student success issues. The implementation includes the involvement of faculty, student support services areas, students and all other campus units impacted by student success.

Follow up Report and Update

As part of its June 2016 Periodic Review Report (PRR), the College presented its self-assessment report, which discussed progress made since the last progress report in 2011. In the PRR report, we presented on our major challenges with regard to enrolment and plans in place to address them, our enrollment and finance trends, and updates on student learning outcomes and assessment-related efforts. The submission of the PRR led to the request for a follow up report in the following three areas:

(1) Development and implementation of a comprehensive institutional strategic plan that links long-range planning to decision making and budgeting processes (Standard 2);
(2) Steps taken to improve the college catalog including clearly articulated statements of student learning outcomes for all degree and certificate programs (standard 6);
(3) Implementation of the revised general education curriculum and implementation of an assessment process for general education (Standard 12).

This request came as a result of the almost extinct 2015-2016 College strategic plan at the time of PRR submission, as well as observed gaps in the course catalog pertaining to stated degree and certificate programs' student learning outcomes. Further, the PRR stated plans for the implementation of the General Education curriculum as well as the implementation of a General Education assessment process. The College has made progress on all the three fronts since the submission of the PRR and evidence to this effect is presented in this report.

SUNY Broome Community College recognized the need to develop a new five-year strategic plan while working on the PRR. Consequently, efforts were made in late Fall 2015 toward the identification of campus and community constituencies to involve in the planning process as well as membership composition of the steering committee. The strategic planning process took effect in Spring 2016 with the establishment of a steering committee and the layout of the process and timeline for completion. The process concluded in Summer 2017 culminating in the development of a new vision, mission, value statements as well as new goals and objectives. Input was received from students, faculty, staff, administrators, shared governance bodies, representatives from the local community, and representation from the college's Board of Trustees. The Plan was approved by the Board of Trustees and implemented in Fall 2017 as tied to outcome assessment and the allocation of resources.

The course catalog witnessed improvements related to degree and certificate program learning outcomes for students. This manifested through the working relationships developed between the Catalog Committee, Curriculum Committee, Deans, Department Chairs, and faculty. This collaborative effort led to the review and update of all course and program learning outcomes in the catalog. The catalog committee continues to work with faculty and chairs of respective programs and courses to regularly review and update the course catalog as well as purge it of defunct courses and programs based on established policies and procedures. The course catalog would continue to be updated as new courses and programs are developed.

Further, the College made considerable progress with regard to the implementation of the revised General Education curriculum as well as the implementation of its assessment process. Per the stipulation of the 2015 General Education Assessment Plan, all General Education courses would be mapped by Fall 2017. Currently, 95 percent of all General Education courses are mapped. Five percent -- representing 15 courses -- were not mapped because 10 of them were deactivated from the course catalog, while five are undergoing revision. There will be continued efforts to assess and revise the General Education plan when needed to ensure that it is in alignment with the priorities of the new strategic plan, especially in relation to Goal 2, focused on teaching and learning.

SECTION 2

Substantive narrative and analysis –

2.1. "(1) development and implementation of a comprehensive institutional strategic plan that links long-range planning to decision making and budgeting processes (Standard 2)"

In this section, we present the following:
2.1-1. Process and development of the new 2017-2022 strategic plan.
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2.2-2. Business and Professional Studies Division
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2.2-4. Liberal Arts Division
2.2-5. Science, Technologies, Engineering and Mathematics (STEM) Division
2.3: "(3) Implementation of the revised general education curriculum and implementation of an assessment process for general education (Standard 12)".
2.3.1. Implementation of the revised General Education Curriculum
2.3.2. Implementation of an assessment process for General Education
2.3.3. Initial assessment of the assessment plan

2.1-1. Process and Development of the 2017-2022 SUNY Broome Community College Strategic Plan

Following the expiration of the 2015-2016 strategic plan of the College, SUNY Broome initiated the planning process for the development of the new five-year strategic plan. This process included the development of a new vision, mission and value statements coupled with new goals and objectives. It was the determination of the College to develop a new strategic plan that is reflective of current and emerging priorities as well as cover all spheres of the College's operations. In November 2015, the Dean of Institutional Effectiveness started the planning process by outlining its duration, identification of a faculty Co-chair as well as potential constituencies to involve in the input gathering process.

In Spring 2016, the strategic plan development process officially unfolded with the formation of the Strategic Planning Steering Committee. The committee was co-chaired

by the Dean of Institutional Effectiveness, Dr. Sesime Adanu and Dr. Meghan McGuinness, a teaching faculty member from the Health Sciences division. Working with the steering committee, the co-chairs developed an action plan, which was followed in the collection of data and the completion of the strategic plan. See Appendix A for the action plan. The steering committee membership was made up of representation from students, faculty, staff, administrators, the local community, and the College's Board of Trustees.

Data and input-gathering for the plan was done in two phases. Phase 1 included environmental scanning and input gathering to develop the new vision, mission and values statements while phase 2 included input-gathering for the development of the new goals and objectives. Data collection for phase 1 included open forums and the use of surveys administered in April 2016 to inform and shape the narrative on a new vision, mission and value statement. The surveys were administered for interested individuals who had input but were unable to attend any of the open forums. The steering committee met bi-weekly during Spring 2016, Summer 2016, and early Fall 2016 to analyze data gathered across campus to aid in the development of a drafted new vision, mission and value statements. The drafted statements were shared with the entire campus, including Shared Governance bodies for input. Input received was used in the refinement of the drafted statements.

Further, in Fall 2016, the process continued with phase 2, which included environmental scanning, several open forums as well as Strengths, Weaknesses, Opportunities and Threats (SWOT) analyses sessions. This was done to gather input for the development of the goals and objectives. The input-gathering process concluded in early Spring (February) 2017 with two sessions exclusively scheduled for representatives from the local community. The local community representatives were very forthright in providing suggestions, which constituted important components of the strategic plan. SWOT analysis surveys were also administered during Fall 2016 to cater to the interest of individuals who were not able to attend any of the forums or meetings scheduled.

All input received from the SWOT analyses and surveys was summarized into themes, which formed the basis upon which the steering committee developed the drafted goals and objectives. These efforts led to the development of six major goals and their associated objectives. Appendix B shows the input-gathering and meeting schedule. To ensure the completion of the plan, the steering committee changed its meeting schedule from bi-weekly to weekly meetings on Fridays in Spring 2017. These efforts led to the development of a comprehensive strategic plan, including the vision, mission, values, goals as well as objectives. The drafted plan was shared with the entire campus for input at different stages in its development. This included input from the Shared Governance bodies, students, faculty, staff and administrators. Input received was used in the revision of the drafted plan. Thus, these individuals and groups played active roles in the review and completion of the plan. The new strategic plan is presented in Appendix C.

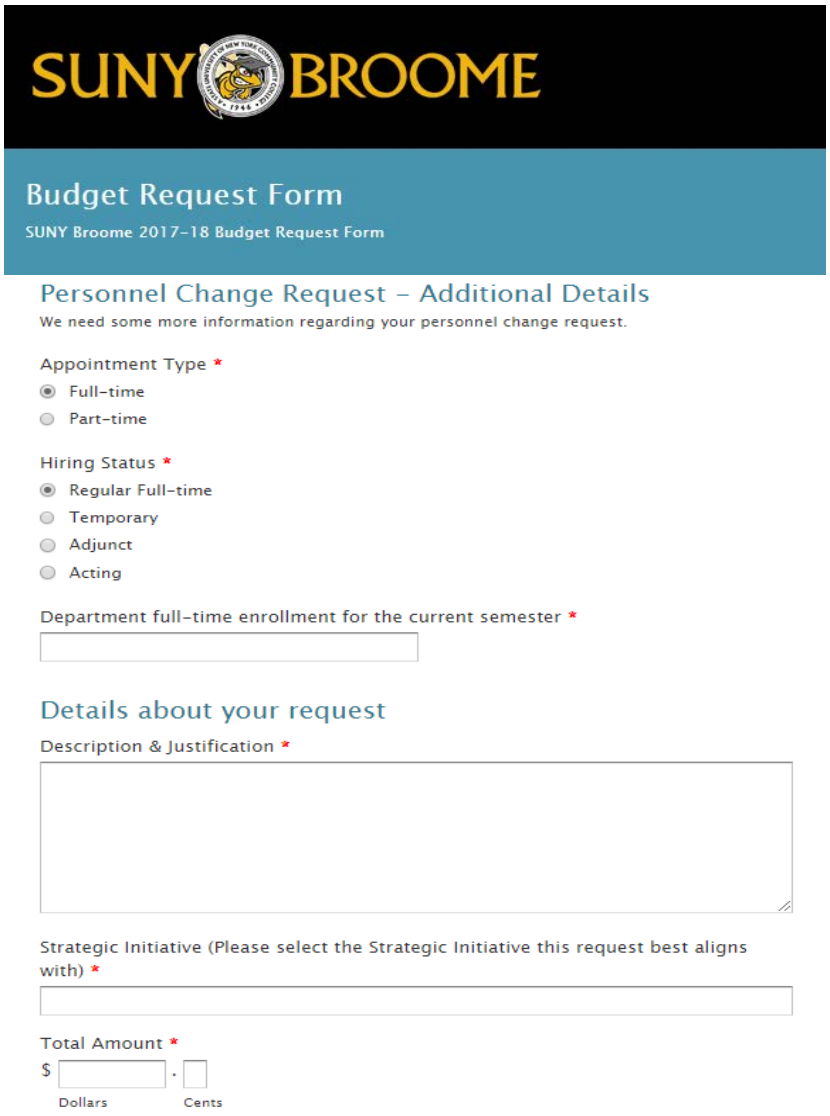
A conscious effort was made to ensure the integration of the strategic plan with the College Academic Master Plan, Diversity and Inclusion Plan, Student Success Plan, and Facilities Master Plan. This was attained by ensuring that all the major priorities in each of the plans mentioned are reflected in the new strategic plan. Consequently, the opportunity is presented to ensure the assessment of progress made in the attainment of strategic plan's goals as they relate to these other plans. The drafted plan was presented to the Board of Trustees in June 2017. The board tabled the final version of the plan for review and approval at their August, 2017 board meeting (no board meeting in July). They, however, deferred approval to their September meeting and then got it approved. The plan went into effect in Fall 2017 and would be assessed for progress made in regard to the goals developed each academic year. Each academic and administrative area will undertake annual outcome assessment and make use of the results to ensure continuous improvement.

2.1-2. Plan implementation and link to long-range planning, decision-making and budgeting processes

The strategic plan was introduced to the campus community during the Fall 2017 Faculty-Staff Assembly; the event is a gathering of faculty and staff to kick off the fall 2017 semester. The College website access link to the plan was shared at the event and is available at www.sunybroome.edu/strategicplan. All units, offices, departments and divisions have identified goals and objectives in the strategic plan that are aligned to their area of work and would undertake their first assessment pertaining to the new plan at the end of the 2017-2018 academic year. The identified goals were also linked to long range budgeting and decision-making. As was the case with the old strategic plan, it is a requirement that budgetary and resource requests are aligned to identified goal(s) in the strategic plan. Further, departments, units or areas needing resources are required to justify their need based on assessment that includes a link to the strategic plan.

2.1-3. Strategic Plan linked to long-range Budgeting and Resource Allocation

As part of efforts to simplify the establishment of a link between strategic planning and the allocation of resources, the College developed a form using the Wufoo software platform. This form specifically requests for evidence of a link between strategic plan priorities and the allocation or reallocation of fiscal resources. This process was put in place as part of the implementation of the new strategic plan for the 2017-18 budget year and beyond. There is as of now 100% compliance on this request. This setup ensures that all required information is completed before a budget request is accepted. In the past, online budget requests were made without requiring all fields of information to be completed. Below is a sample of SUNY Broome's new personnel budget development request form using the Wufoo software.



This process adds to the availability of benchmark data on the SUNY Broome Budget portal, which provides users with departmental data related to respective academic areas such as teaching ratios, department enrollments by term, and average class size. This benchmarking data, as well as identified strategic initiatives from the request form, is shared with the Chief Academic Officer (CAO) in determining personnel requests that have the greatest need. Below is an example of a completed personnel budget request for the 2017-2018 academic year.

SUNY Broome 2017-18 Personnel Budget Request									
Department Name	Org Code	Type of Request	Priority #	Appointment Type	Hiring Status	Full-time Enrollment	Description & Justification	Strategic Goal/Initiative	Total Amount
Mathematics	2253	Personnel Change Request	1	Full-time	Regular Full-time	207.2	The Mathematics Department has experienced several resignations and retirements over the last couple years. In addition, new initiatives (Quantway, PTECH, BAP) and more demand from external Departments for online classes has occupied more of our full-time faculty, leading to day overloads now becoming a regular occurrence, where even just a few years ago they were very rare. I request 2 full-time Assistant Professor lines for the Department, starting Fall 2017, to replace the two retirements we had last year. (Note: I do not have any idea about fringe and other personnel costs, so the amount given below is only salary based on Contract minimums.)	2,4,6	93,500

2.1-4. Plan linked to Contractual Expenses

Similar to the personnel planning and budgeting process, contractual expense budget requests are made through the Wufoo form. This form also requires that all requests are aligned with a strategic goal(s) (initiative) before budget requests are accepted. Further, it also calls for assessment to be made based on need and justified with evidence as tied to the strategic goals (priorities) of the College. An example of a completed contractual expense budget request for 2017-2018 is presented below.

SUNY Broome 2017-18 Contractual Expense Budget Request									
Your Name	Last	Your Title	Department Name	Org Code	Type of Request	Priority #	Description & Justification	Strategic Initiative	Total Amount
Amy	Brandt	AVP/Dean	DL & Hlt Sci	2226	Travel, Contractual Services & Supplies Request	1.7	The DH Clinical is requesting an additional $1,060.15 in supply money (under #7159). The department has placed all lab supply costs feasible into student fees. The lab, however, has supply expenses necessary to support patient care in the clinical and ensure students thereby have access to patient volume in order to meet clinical competencies per the Commission on Dental Accreditation requirements. The department has done a detailed estimate of lab costs per student for this endeavor based on 4 years of lab supply costs data and enrollments. Based upon data, the budget is short the requested amount. The budget was short this fiscal year 16/17 and required an immediate transfer of funds from Decker Support to ensure patient care in the clinical did not cease. This was despite that fact that Decker Support budget is not suppose to be utilized for these kinds of purposes. To rectify this for the future, the program is requesting that it have sufficient lab supply funds to ensure its applied learning efforts are sustained.	2.4, 2.5, 3.1	1,060

Evident in the above request are detailed estimates made based on prior-year average expenses and current enrollment trends for the academic department. The description and justification for this request also ensures that applied learning efforts in the Dental Hygiene lab are covered for the next budget year.

2.1-5. Assessment integrated into the budget reallocation process

The budget reallocation form was modified to include justification for resource reallocation. It also requests for evidence of need from outcome assessment as well as a description of the need. Below is a sample of the revised budget reallocation form.

17 - **SUNY BROOME BUDGET REALLOCATION**

department name	budget expense account title	department index #	expense account #	increase budget (+)	decrease budget (-)	+ or -
Please provide justification for the transfer below:						
(Link to strategic goals/initiatives, reason why funding is avaialable, and why funding is needed)						

Description of reallocation *(limit to 28 characters)*

Academic departments : Evidence of need from program learning outcomes assessment

2.2: "(2) Steps taken to improve the college catalog including clearly articulated statements of student learning outcomes for all degree and certificate programs (standard 6)"

2.2-1. The College Catalog Improvement Process

The College has made substantial progress since the submission of the Periodic Review Report to improve the course catalog. This progress includes work done by the Catalog Committee as well as Department Chairs of respective academic programs.

The Catalog Committee reviewed all courses in the course catalog between Fall 2016 and Spring 2017 to ensure that all course descriptions were clearly articulated and associated Student Learning Outcomes (SLO's) were specified for all certificate and degree programs. Noncompliant courses and programs were identified and communicated to respective Deans and Chairs for updates in the catalog. These efforts led to active courses and programs now having course and program learning outcomes listed in the course catalog. The catalog is thus very current as of now. The updated program and course learning outcomes of each of the academic divisions namely -- Business and Professional Studies, Health Sciences, Liberal Arts and STEM- (Science, Technology, Engineering and Mathematics) are shown in the course catalog via this link: http://www1.sunybroome.edu/academics/our-programs/ Access to the catalog content for each division is discussed below.

2.2-2. Business and Professional Studies Division: This division changed its name from Business and Public Services to Business and Professional Studies in Fall 2017. The name change is reflective of all the new courses and programs implemented by the division over the last few years. The program learning outcomes for the division's Certificate and Degree programs are accessible by first clicking on each program; for example, Accounting A.A.S and then scrolling down and clicking on "Full Catalog Entry". Beneath each of the program learning outcomes are the active courses with their respective learning outcomes listed. A click on each course shows its learning outcomes.

2.2-3. Health Sciences Division: The program learning outcomes for Certificate and Associate degree programs in the Health Sciences division are viewable by clicking on each program (for example, Dental Hygiene A.A.S) and looking at the top left list of contents to locate "…learning outcomes….". A click on this shows the learning outcomes for respective programs. The "Program details (catalog)" link shows all active courses with their learning outcomes. The course learning outcomes are displayed when each course is clicked on.

2.2-4. Liberal Arts Division: The Visual and Communication Arts A.S. program learning outcome is accessible by clicking on the program, locating "Learning Outcomes" on the top left and clicking on it. The learning outcomes for all the other Liberal Arts programs are accessible by clicking on the program, locating and then clicking on "Program Details (catalog)" to view the program learning outcomes. The course learning outcomes are accessible by scrolling down and clicking on each course.

2.2-5. Science, Technologies, Engineering and Mathematics (STEM) Division: The Certificate and Degree program learning outcomes for STEM are accessible by clicking on each program, and clicking on "Full Catalog Entry". Respective courses and associated learning outcomes are viewable by scrolling down, and clicking on each course.

Differences in the location of the program learning outcomes pertaining to degree and certificate programs by academic division are attributed to the fact that each division dictates how its website content is displayed. Efforts are in the works to devise a common standard of display of web content across academic divisions. This is, however, subject to approval from the respective academic divisions.

Other efforts aimed at the catalog improvement includes the Catalog Committee's research on the impact of Curriculum Management software on the course catalog. The purpose of this is to enhance efficiency in adding newly approved courses, and revised courses, and removing deactivated courses in the catalog. The Curriculum Committee would make a final decision on this in Fall 2017. Also, the Catalog Committee discussed and made a recommendation to archive the College Catalog semi-annually. This recommendation was forwarded to campus Shared Governance for consideration. If approved, the College would move forward with scheduled archive dates. Further, the Catalog Committee continues to support academic departments and offices in the update and revision of sections of the College catalog to ensure the information is accurate and current.

2.3: (3) Implementation of the revised general education curriculum and implementation of an assessment process for general education (Standard 12).

2.3.1: Implementation of the Revised General Education Curriculum
As referenced in the College's June 2016 Periodic Review Report, the College undertook a review of the general education curriculum in 2013-2014 in response to SUNY's seamless transfer initiative. As part of that review, the General Education Committee

developed its general education assessment plan for 2015-2019. The plan clearly delineated the criteria for SUNY Broome general education courses to meet MSCHE general education requirements and SUNY general education requirements, and align course-level student-learning outcomes with institutional student-learning outcomes (see Table 2.3.1 and 3.3.2). Courses adhering to MSCHE expectations and meeting SUNY general education requirements have been submitted to SUNY and can be found on the list of courses submitted to SUNY (See Appendix D*).* All editions and changes identified as necessary and brought about by the SUNY seamless transfer initiative have been implemented. At the present time, any changes to SUNY Broome's general education courses follows the process outlined by the campus' General Education Committee and aligns with all SUNY Broome Curriculum Committee processes for course review and approval.

Table 2.3.1: Alignment of SUNY Broome ISLOs with MSCHE and SUNY GER Components

MSCHE GER Curriculum Components	SUNY GER Curriculum Areas	SUNY Broome ISLOs
Cultural and global awareness and cultural sensitivity	Western Civilization, Other World Civilizations, Foreign Language, Humanities, Arts	ISLO 1, ISLO 4, ISLO 6
Values, ethics, and diverse perspectives	Social Science, American History, Other World Civilizations, Foreign Languages, Humanities, Arts	ISLO 1, ISLO 5 ISLO 6
Oral and written communication	Basic Communication (Written and Oral)	ISLO 2
Scientific and Quantitative Reasoning	Natural Science, Social Science, Mathematics	ISLO 3
Critical Analysis and Reasoning	Critical Thinking	ISLO 5, ISLO 7
Technological Competency	Basic Communication, Information Management	ISLO 1
Information Literacy	Information Management	ISLO 3

SUNY Broome ILOs (Institutional Learning Outcomes):

1. **(ILO 1)** Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. **(ILO 2)** Read, write, speak, and listen effectively in both personal and professional spheres.
3. **(ILO 3)** Retrieve, organize, analyze, evaluate, and appropriately use information.

4. **(ILO 4)** Perform effectively as a team member.
5. **(ILO 5)** Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. **(ILO 6)** Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. **(ILO 7)** Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Table 2.3.2: Example of Alignment of GER Course-level SLOs with SUNY and BCC ISLOs		
ENG 110: College Writing 1 SUNY BCC SLO (Local)	**SUNY - GER SLO**	**SUNY BCC ILO**
3. Students will represent information and ideas from texts accurately.	3	1, 2, 7
4. Students will evaluate sources for relevance and appropriateness	3	1, 2, 3, 4
5. Students will write for different audiences and rhetorical purposes	1, 2, 3	1, 2, 3, 5, 7
6. Students will write in Standard Written American English	1, 2	2

The 2015-2019 General Education Assessment Plan is presented in Appendix E.

2.3.2. Implementation of an Assessment Process for General Education

The SUNY Broome General Education Assessment Plan launched in 2015. The plan identified the assessment cycle as running from Fall 2015 to Spring 2019. The plan called for all general education courses to develop student-learning outcomes, if not already developed, and map course level student-learning outcomes to established SUNY general education learning outcomes and SUNY Broome institutional student-learning outcomes. The target set to complete all mapping and establish an assessment schedule was Fall 2017.

To date, the campus completed 95% of its Fall 2017 mapping goal. Three hundred general education courses were identified between the campus' four divisions: Business and Professional Studies (BPS), Health Sciences (HS), STEM, and Liberal Arts (LA) for mapping and assessment. At the present time, 285 courses have curriculum maps. The 15 courses that do not have maps are either due to scheduled deactivation, or they are under revision and in process of developing course-level student learning outcomes and mapping them to institutional student learning outcomes. Information on these are presented in Tables 2.3.3a and 2.3.3b below. The courses still in process are expected to complete mapping by the close of the Fall 2017 semester.

Table 2.3.3 a. Course Assessment and Mapping by Division as of 9-12-2017

Division	# Courses To be Assessed	# Curriculum Maps Completed	Assessment			
			Year 1	Year 2	Year 3	Year 4
BPS	5	5	1	0	0	0
HS	8	7	7	3	1	1
LA	209	197	45	13	1	0
STEM	78	76	14	9	3	1
Total	**300**	**285**	**67**	**25**	**5**	**2**

Table 2.3.3 b.

Reason for Incomplete Curriculum Maps		
Division	**# Inactive Courses; will be removed Gen Ed Categorization**	**# Courses without Course Outcomes; to be completed Fall 2017**
BPS	0	0
HS	1	0
LA	8	4
STEM	1	1
Total	**10**	**5**

With mapping complete, faculty will begin assessing student-learning outcomes in courses where assessment has not yet been completed. The campus has set a target to assess at least each course once per each assessment cycle. The current cycle will end in 2019.

As per the general education assessment plan, collected assessment data is currently being used by disciplines to enact changes suggested by the data. Examples of this are referenced in Table 2.3.4 below.

At the end of the assessment cycle, a formal report will be generated on general education assessment that reviews aggregated data on SLOs to provide an overall assessment of the curriculum. The overall assessment will be reviewed by the General Education Committee in conjunction with the Student Learning Outcomes Assessment Committee. Outcomes and recommendations will be submitted to the Council for Academic Issues who will then make formal recommendations for action to the Chief Academic Officer.

Examples of the mapping documents are presented in Appendix F while the SLAC Submissions are shown in Appendix G.

<table>
<tr><th colspan="3">Table 2.3.4: Examples of Changes Enacted Due to SLO Data</th></tr>
<tr><th>Class</th><th>SLO Finding</th><th>Enacted Change</th></tr>
<tr><td>BUS 115</td><td>For the uniform distribution materials, LO#1 87%, 2%, 9%, 12%. LO#2 52%, 0%, 13%, 5%. LO#3 95%, 2%, 3%, 0%. LO#4 95%, 2%, 0%, 3%. LO#5 90%, 0%, 0%, 10%. For the estimation materials, LO#1 45%, 8%, 38%, 9%. LO#2 54%, 19%, 23%, 1%. LO#3 54%, 19%, 23%, 4%. LO#4 63%, 3%, 0%, 12%. LO#5 77%, 0%, 1%J, 22%.

The previous assessment identified interpretation of data as we weak point, it was improved on this assessment cycle. This cycle estimation activity came in below benchmark.</td><td>The department will add additional homework activities on estimation and reassess during the next cycle.</td></tr>
<tr><td>CLT 208</td><td>
<table>
<tr><th rowspan="2">Learning Outcome</th><th>Avg by Ques.</th><th colspan="2">Avg by Ques & Cohort</th><th rowspan="2">Expectation</th></tr>
<tr><th></th><th>Traditional</th><th>Online</th></tr>
<tr><td>6</td><td>54.38</td><td>57.93</td><td>49.05</td><td>Below</td></tr>
<tr><td>2</td><td>84.86</td><td>95.27</td><td>69.25</td><td>Exceeds Trad./Below Online</td></tr>
<tr><td>3, 4</td><td>83.42</td><td>81.23</td><td>86.7</td><td>Exceeds</td></tr>
<tr><td>5, 1</td><td>83.54</td><td>83.20</td><td>84.05</td><td>Exceeds</td></tr>
<tr><td>6</td><td>96.7</td><td>96.27</td><td>97.35</td><td>Exceeds</td></tr>
</table>
</td><td>We will continue to offer the course content in a similar fashion. We feel the issue with the first question that assesses LO#6 is a poorly written question and not necessarily a lack of knowledge on the student; we believe that if we re-write the question and assess the students again, they will meet or exceed expectations. The issue with the assessment for LO#2 that is below expectation for the online students appears to be an anomaly for one semester that brought the whole average down, we plan to continue as we have and reassess the question again. If both questions continue below expectations, we will reassess content material to institute changes.</td></tr>
</table>

Class	SLO Finding	Enacted Change
MUS 108	Of the 15 students 6 exceeded, 6 met, and 3 failed to meet expectations. Within each category there was quite a range of justifications-in number and in specificity and accuracy.	In the next assessment of this course I will devise a more precise task for the students and a more accurate formula for analysis. I will continue to stress the big picture, i.e. always remind the class what the precedents are for all new music and styles
MAT 130, 136, 146, 156, 160, 181, 182	Goal is >=60% Completely Correct or Generally Correct Outcome 1: 57.6% CC or GC Outcome 2: 64.4% CC or GC Outcome 3: 72.6% CC or GC For these outcomes, we are meeting or nearly meeting our goal.	Online and Fast Forward course sections were included and completed the same assessments. Performance was comparable top on-campus sections. These results are shared with the Mathematics Department faculty at the beginning of the next semester. We have implemented a rolling schedule of assessment, so nearly all faculty are involved at some point during each academic year. This helps everyone stay focused on our students' success.

2.3.3. Initial Assessment of the Assessment Plan

During the 2016-2017 academic year, the campus engaged in an intensive process to revise its strategic plan for the 2017-2022 period. In order to reaffirm and strengthen the campus' commitment to engaging in effective assessment of student learning that is useful, systematic and sustainable, the strategic planning committee voted to revise and embed institutional learning outcomes into the campus' revised strategic plan as part of a strategic goal dedicated to teaching and learning. The model used for doing this was based on models suggested in the Middle States Commission on Higher Education's 2007 publication on *Student Learning Assessment: Options and Resources, 2nd Edition.* The strategic planning committee, decided to simplify its institutional student-learning outcomes so that programmatic outcomes could more easily be aligned with institutional ones. The decision for this shift was also made to ensure the campus kept pace with the new MSCHE standards published in 2014.

With the strategic plan now formally adopted by the Board of Trustees, program and course-level student learning outcomes will be cross-walked from the old outcomes to the new and programs will revise their assessment protocols accordingly. All assessments conducted heretofore will thus easily be understood under the old ISLO and new ISLO categories.

Table 2.3.3: GER Requirements Crosswalk

MSCHE GER Curriculum Components	SUNY GER Curriculum Areas & Components	New BCC ISLOs	Old BCC ISLOs
Cultural and global awareness and cultural sensitivity	Western Civilization, Other World Civilizations, Foreign Language, Humanities, Arts	Cultural and global awareness	ISLO 1, ISLO 4, ISLO 6
Values, ethics, and diverse perspectives	Social Science, American History, Other World Civilizations, Foreign Languages, Humanities, Arts	Cultural and global awareness	ISLO 1, ISLO 5 ISLO 6
Oral and written communication	Basic Communication (Written and Oral)	Oral and written communication	ISLO 2
Scientific and Quantitative Reasoning	Natural Science, Social Science, Mathematics	Scientific and quantitative reasoning	ISLO 3
Critical Analysis and Reasoning	Critical Thinking	Critical analysis and decision-making	ISLO 5, ISLO 7
Technological Competency	Basic Communication, Information Management	Technological competency	ISLO 1
Information Literacy	Information Management	Information literacy	ISLO 3

The General Education Committee will also begin its initial assessment of its assessment plan starting Fall 2017. Utilizing MSCHE expectations related to usefulness, cost-effectiveness, accuracy/truthfulness, planning, and organization/systematization/sustainability as a framework for evaluating the overall effectiveness of the assessment process, the committee will conduct an initial assessment as to improvements needed to mature its assessment process so as to maximize positive impacts on student learning.

SECTION 3

Conclusion –

In this section, we present information on how the three core areas of the follow-up report would be sustained. Specifically, the following are presented:

3.1. Sustainability of the strategic plan development and implementation
3.2. Sustainability of improvements made to the college catalog
3.3. Sustainability of implementation of the revised general education curriculum and assessment process

3.1. Sustainability of strategic plan development and implementation as linked to long-range decision making and budgeting

To ensure the sustainability of the strategic plan after its implementation, all academic and administrative units of the College have identified goals in the strategic plan that are aligned with their area of work and have developed measurable student learning outcomes and administrative unit outcomes linked to the strategic plan. Outcome assessment plans and reports would be done each academic year. With justification for the allocation of resources a requirement on submitted budget forms as linked to the strategic priorities of the College, sustainability is ensured. A joint Institutional Effectiveness and Strategic Planning Committee (IESPC) was formed in Fall 2017 to help assess and tract progress made on College priorities that are linked to the strategic plan. This would be done alongside the annual outcome assessment reports submitted from across the College.

Outcome assessment-related training sessions will be offered for faculty and staff each academic year as a means to sustain assessment efforts as they relate to established priorities in the strategic plan. There would also be one-on-one support provided for those needing it to sustain assessment initiatives on campus. The requirement to link resource request to the strategic plan as well as assessment justifying the need for requests as noted under 2.1.3, 2.1.4, and 2.1.5 of this report would equally help sustain plan implementation. Further, the requirement that each academic and administrative area undertake annual outcome assessment and make use of the results to ensure continuous improvement further demonstrates strides toward sustainability of the implemented strategic plan. The College is exploring options to purchase an assessment software that aggregates outcome assessment results to track progress made in accomplishing the goals of the strategic plan each academic year.

3.2: Sustainability of improvements made to the college catalog including clearly articulated statements of student learning outcomes for all degree and certificate programs

To ensure a regularly updated course catalog that includes courses as well as degree and certificate programs student learning outcomes, each academic division will review and update their respective course and program information annually. The changes will be communicated by Department chairs to the Catalog Committee for changes to be made. In instances where curriculum changes are required, policies and procedures governing such changes will be followed in working with the Curriculum Committee. Further, prior to any new additions to the course catalog, the Catalog Committee will ensure that all submissions have course and program

learning outcomes before they are added to the catalog. As noted in the narrative, the Catalog Committee is also working with the shared governance bodies to identify a software that is able to help manage the course catalog.

3.3: Sustainability of implementation of the revised general education curriculum and implementation of an assessment process for general education (Standard 12).
The college is poised to build on the gains attained through the implementation of the revised general education curriculum and associated assessment process. Specifically, all General Education course mappings will be concluded by the end of Fall 2017 while the assessment of mapped courses continue. To ensure the relevance and effectiveness of General Education assessments done and, for that matter, sustainability, the General Education Committee would continue to assess the Gen Ed process. Where findings suggest the need for changes, identified changes will be made. The General Education Committee will continue to make recommendations to the Council on Academic Issues (CAI), the shared governance body on academic issues for changes to be made with sustainability and continuous improvement in mind. CAI will, in turn, make recommendations to the Chief Academic Officer for change implementation.

As part of the assessment process, the General Education Committee will explore an assessment process whereby General Education requirements are mapped to respective academic programs so as to help track program specific General Education requirements. This would also be beneficial in guiding students on Gen Ed requirements for their program of choice.

Appendices –

Appendix A

SUNY Broome Community College
Strategic Planning 2017-2022
Schedule

Spring 2016 – Pre-Planning for New Plan

GOALS:

- Develop preliminary Plan process
- Evaluate success (effectiveness) of the process
- Review planning committee/charge

- March 11, 2016: Committee membership finalized
- March 16, 2016: Doodle poll distributed to assist in scheduling initial meetings (MM)
- April 2016: ***Strategic Planning Committee (SPC)*** convenes and holds one meeting this month (two meetings with two groups of committee members due to difficulty in scheduling meetings)
    - Meeting #1: Review of existing Strategic Directions 2010-2015, SUNY Broome Community College Vision and Mission Statements, charge of committee, establish timeline
    - Survey finalized and distributed to campus community before the end of the semester- Survey focused on input to develop new vision, mission and value statements
- May 2016: ***SPC*** meets once during the month of May before graduation
    - Meeting #2: Review of the vision and mission of the college

Fall 2016 (Fall semester begins August 29, 2016) – Planning Cycle Begins

GOALS:

- Review mission/vision per survey input
- Environmental scan
- SWOT and gap analysis
- Develop goals/objectives
- Develop implementation plan

- September 2016: Assessment Input (AI) sessions with ***campus*** community
- September 2016: ***Campus*** SWOT
- October 2016: ***Campus*** SWOT
- October 2016: AI sessions with ***campus*** community
- October 2016: ***SPC*** reconvenes

    - Meeting #1 – early October; President Drumm addresses group and gives official charge
- November 2016: AI session with ***students*** (mission, vision, value statements)
- November 2016: ***SPC*** meeting
- December 2016: Presentation to ***College Assembly*** **(shared governance body)**
- December 2016: ***Executive Council*** Review (drafted mission, vision, value statements)

Spring 2017 - Review of Process, Implementation

GOALS:

- Communication of process and findings with campus community and community at large
- Presentation of process and findings to the campus shared governance bodies, executive council, and board of trustees
- Share drafted Plan with entire campus and shared governance bodies for input

- January 2017: Review of Spring 2017 dates presented to ***College Assembly***
- February 2017: ***Community*** Forum (2 sessions – morning and afternoon)
- February 2017: ***SPC*** meeting
- March 2017: ***SPC*** meeting
- April 2017: ***SPC*** meeting
- May 2017: SPC meeting
    - ***College Assembly*** votes to approve vision, mission, values and strategic initiatives
    - ***Executive Council*** votes to approve vision, mission, values and strategic initiatives

Summer 2017- Finalizing Plan for approval by Board of Trustees

GOALS:

- Make final edits and changes to the Plan based on input received from across campus
- Graphic design of Plan and formatting to have Plan ready for printing and posting online
- Approval of Plan by Board of Trustees

- June 2017: Gather final suggested changes to Plan and undertaking all changes
- June 2017: Final endorsement of Plan by President's executive team
- July 2017: Communication and Marketing area finishes work on the design and formatting of Plan
- August 2017: Board of Trustees votes to approve Plan

Appendix B

2016-2017 Strategic Planning Data Collection Plan

Date/Time	Location	Campus Group	Contact for Group	Individual Responsible
4/16-7/16	D201	Town hall and online survey	-	Sesime
9/26/16 9:30	W107	Executive Council	Patricia O'Day	Sesime
10/5/16 8:30-10	W203B	The Gathering and CAO	Dani Berchtold	Sesime and Meghan
10/6/16 9:00-10:30	W203B	Council for Operational Issues (Meeting #1)	Carine Surdey	Sesime
10/6/16 11:00-12:00	B224	Business and Pubic Services Division	Beth Mollen	Sesime
10/12/16 3:00-4:30	W203B	Council for Academic Issues (Meeting #1)	Mary Donnelly	Meghan
10/13/16 2:00	W201	Foundation	Cathy Williams	Sesime and Meghan
10/14/16 11 am-12:30	NSC207G	SLAC and IEAC	Rachael Hagerman (SLAC); Sesime Adanu (IEAC)	Sesime
10/17/16 3:00-4:30	W203B	College Assembly	Giovanni Scaringi	Sesime
10/19/16 3:00-4:30	W203B	Council for Academic Issues (Meeting #2)	Mary Donnelly	Sesime and Meghan
10/20/16 9:00-10:30	W203B	Council for Operational Issues (Meeting #2)	Carine Surdey	Sesime
11/15/16 3:00-4:30	D201	Chairs and Deans	Dani Berchtold	Sesime
10/27/16 1:00-3:00	D201	Town Hall Meeting	-	Sesime and Meghan
10/31/16 11:00-1:00 pm	D215	Health Sciences Division	Amy	Sesime
10/31/16 3:00-4:30	W203B	College Assembly (Meeting #2)	Giovanni Scaringi	Sesime
11/2/16	W203B	Council on Academic Issues CAI	Mary Donnely	
11/3/16 9:00-10:30	W203B	Council for Operational Issues (Meeting #3)	Carine Surdey	Sesime
11/3/16 11:00-12:00	NSC 207G	STEM	Kelli Ligiekis	Sesime
11/11/16 9:00-11:00	D201	Town Hall	-	Sesime
11/11/16 1:00-3:00	T210	Liberal Arts	Michael Kinney	Sesime and Meghan

11/17/16 9:00-10:30	W203B	Council for Operational Issues (Meeting #4)	Carine Surdey	Sesime
TBD	W203A	Gen. Ed. Committee	Jason Smith	Sesime and Rachael
10/20/16 4:00-5:00	D 117	Diversity Taskforce	Scott Corley/Venessa Rodriguez	Sesime
11/31/16 11-1	D215	Health Sciences	Amy Brandt	Sesime and Meghan
10/14/16 3:00-4:30	Old Sci Blding	Student Assembly (Student Government)	Amanda Soto	Sesime
02/16/17 4:00-6:00	B110	SWOT Input from representatives from local community	Email to confirmed individuals	Sesime
02/21/17 4:00-6:00	D215	SWOT Input from representatives from local community	Email to confirmed individuals	Meghan

SUNY BROOME

Strategic Plan

2017 - 2022

STRATEGIC PLANNING STEERING COMMITTEE MEMBERSHIP

Name	*Position*
Denise Abrams	Health Sciences Faculty and Chairperson
Sesime Adanu	Co-chair for Steering Committee & Dean of Institutional Effectiveness
Francis Battisti	Executive Vice President and Chief Academic Officer
Amy Brandt	Associate VP and Dean of Health Sciences and Distance Learning
Margaret Coffey	Chair, Board of Trustees
Shelli Cordisco	Director of Sponsored Programs
Scott Corley	Liberal Arts Faculty
Rachael Hagerman	Health Sciences Faculty and Chairperson
Janet Hertzog	Director, Continuing Education
Therese Kettering	Staff Associate, Health Sciences
Angelo Mastrangelo	Member, Board of Trustees
Meghan McGuinness	Co-chair for Steering Committee and Health Sciences Faculty
Wayne Mitteer	Local Community Representative
Debra Morello	Vice President, Student and Economic Development
Joseph O'Connor	Director of Campus Safety & Security
Donna Rehak	Staff Associate, Liberal Arts
Gian Roma	Business and Public Services Faculty
Scott Schuhert	Dean of Students
Lisa Strahley	Liberal Arts Faculty and Chairperson
Michael Sullivan	Vice President, Administrative and Financial Affairs
Kenyetta Torrence	Student Representative
Catherine Williams	Executive Director, BCC Foundation

MESSAGE
from the President

Colleagues:

We are pleased to share with you SUNY Broome's updated Strategic Plan publication. I want to thank our strategic plan steering committee, our executive team, and everyone involved for their efforts in completing this.

Strategic planning has become a critical element throughout all of higher education – so much so that it has its own standard within our Middle States accreditation process. Historically, SUNY Broome Community College has been very strong in this arena and, in fact, our planning process was lauded by our Middle States visiting team. Consequently, ongoing strategic planning itself is one of those initiatives for which we simply have to maintain the high standards we already have in place.

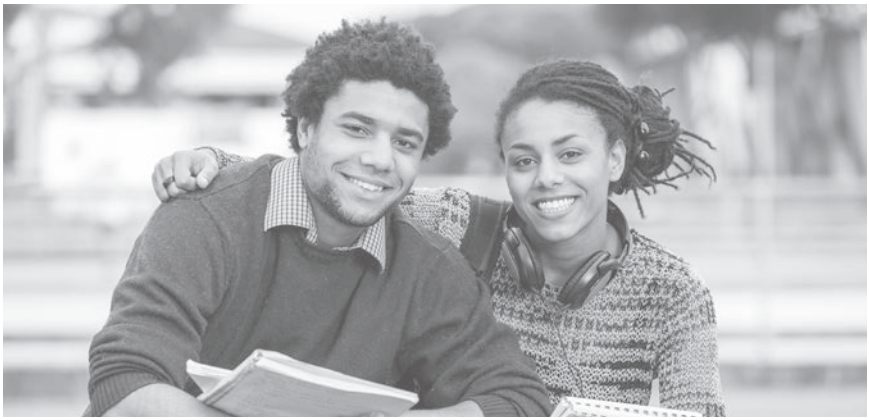
The executive team and College Assembly look forward to working with you on this plan and, of course, with our ongoing assessment and accountability initiatives.

Let me thank you in advance for your help as we commence a new era of achieving our ambitious plans as laid out in this document.

Kevin E. Drumm, PhD
President, SUNY Broome

SUNY BROOME COMMUNITY COLLEGE

Strategic Plan, 2017 - 2022



VISION:

Learning today, transforming tomorrow.

MISSION:

SUNY Broome Community College supports all members of the learning community by creating access to inclusive, diverse educational experiences. Success is achieved through the provision of innovative academics, transformative student support, and meaningful civic & community engagement.

We realize our mission by fostering an environment that exemplifies the college's institutional goals to the highest quality.

INSTITUTIONAL GOALS AND OBJECTIVES:

SUNY Broome provides access to diverse educational opportunities delivered through different modalities, in which students of all backgrounds and abilities are able to achieve their educational goals aimed at success. Student success is evident through the earning of a certificate, degree, transfer to four-year institutions, or knowledge and skills acquired through continuing education offerings. SUNY Broome has established the following institutional goals and objectives that reflect the college's mission.

1. DIVERSITY AND INCLUSION:

Foster the essential connections among diversity, equity, and inclusion in all of the college's endeavors.

Goal 1. Demonstrate commitment to diversity and inclusion by making SUNY Broome an increasingly engaged, culturally responsive, socially responsible and equitable place to learn, teach, work, and live.

Objectives/Strategies:

1.1 Increase intentionality in leadership that demonstrates commitment to diversity and equity through governance, budget, and institutional practices.

1.2 Increase the recruitment, retention and graduation of underrepresented students.

1.3 Expand the recruitment and retention of diverse faculty, staff and administration.

1.4 Enhance learning experiences inside and outside the classroom that will help students develop competencies related to diversity, equity and inclusion.

1.5 Advance a living/learning community that embraces diversity of ideas, cultures and social responsibility.

1.6 Establish, strengthen and sustain strategic partnerships that foster diversity initiatives on and off campus.

2. TEACHING AND LEARNING:

Provide dynamic educational experiences to afford students opportunities for transfer, employment, personal enrichment and to contribute to community life.

Goal 2. Develop an inclusive teaching- and learning-centered environment that supports pedagogical excellence, student success and student attainment of key learning outcomes

i. Cultural and global awareness

ii. Critical analysis and decision-making

iii. Oral and written communication

iv. Scientific and quantitative reasoning

v. Technological competency

vi. Information literacy

Objectives/Strategies:

2.1 Continually assess and evaluate courses and programs to ensure quality, relevance, and compliance.

2.2 Offer faculty and staff professional development opportunities informed by program and student learning outcome data, best practices, and for the intellectual, scholarly and interpersonal growth of the campus community.

2.3 Support diverse teaching methodologies grounded in best practices that challenge and inspire students to attain academic success and intellectual enrichment.

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2.4 Develop and implement a formalized framework for assessment and utilization of student learning, program and initiative outcome data in resource allocation decisions across all learning modalities to attain equity in student success.

2.5 Improve performance on student success indicators.

2.6 Increase collaboration between divisions, departments and offices/units to facilitate student success.

2.7 Cultivate partnerships to enhance access, educational experiences and opportunities.

2.8 Support the library in adapting to a changing, multi-dimensional learning and teaching environment.

2.9 Enhance capacity for prior learning assessment.

3. FISCAL, PROGRAM DEVELOPMENT, AND INFRASTRUCTURE SUSTAINABILITY:

To provide sustained open access to diverse and innovative educational experiences and transformative student support, the institution commits to responsible acquisition and stewardship of resources.

Goal 3. Practice fiscal responsibility and sustainability as part of a comprehensive decision making process to support equity among all members of the learning community to ensure continuous improvement.

Objectives/Strategies:

3.1 Prioritize and allocate fiscal resources based on objective criteria and outcome assessment results.

3.2 Invest in energy efficient resources that reduce cost and sustain the teaching and learning environment.

3.3 Invest in the maintenance of facilities and the building of new ones when needed to support the strategic priorities of the college.

3.4 Continue to procure equipment and technological resources that meet the changing needs of instructional delivery, student support services and administrative needs aimed at student success.

3.5 Promote an environment that enhances wellness and long-term health.

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3.6 Continue to develop viable, innovative and entrepreneurial/ enrichment/professional programs that meet the needs of the local community and region.

3.7 Expand the Foundation's institutional advancement efforts to increase alumni engagement and fundraising of critical private gifts that support the academic and professional pursuits of students, faculty and staff and the physical campus.

3.8 Support, prioritize, and align human capital in order to provide quality academic programming and facilitation of student success.

3.9 Explore opportunities for alternate funding streams.

3.10 Provide accurate and timely financial information for internal and external use in compliance with Federal, State, College and other stakeholders' policies, procedures, and legal requirements

4. STUDENT SUPPORT & SUCCESS:

Foster student growth and success by providing transformative academic and student supports, comprehensive resources, and an enriching climate that contributes to the attainment of individuals' goals and achievements from initial inquiry through graduation and beyond.

Goal 4. Enhance accessibility and use of support services to help students obtain their academic and personal goals.

Objectives/Strategies:

4.1 Develop enrollment and recruitment strategies that align with identified best practices for student success.

4.2 Align student support with strategies developed through the Achieving Success process.

4.3 Adapt communication strategies to effectively engage and inform students.

4.4 Prepare students for financial independence and responsibility.

4.5 Provide and align adequate human, technological and other resources to address diverse and holistic student needs.

4.6 Enhance and expand student participation in extra and co-curricular activities.

4.7 Prepare students to become employable and/or in a position to transfer to a four-year educational institution.

5. CIVIC, COMMUNITY ENGAGEMENT, AND SERVICE-LEARNING:

Emphasize the importance of each individual being an informed and engaged citizen.

Goal 5. Provide opportunities to increase community engagement by developing collaborative, socially-just, responsive and effective solutions to local, national and global community needs.

Objectives/Strategies:

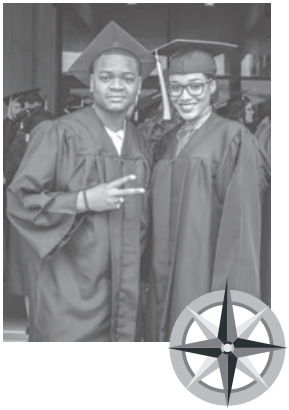
5.1 Develop and sustain strategic partnerships to foster civic discourse and engagement.

5.2 Provide opportunities and access to civic learning activities that positively influence students' lives and their communities.

5.3 Foster the theory and practice of deliberative democracy.

5.4 Increase awareness of the impact of collaborative civic initiatives between the college and community.

5.5 Serve the community through proactive leadership related to economic development in the region.



6. STRATEGIC AND CONTINUOUS IMPROVEMENT:

We continue to take full responsibility for our institutional outcomes to continuously improve and fulfill our college mission.

Goal 6. Enhance assessment and decision-making that is grounded in reflective practices to best align existing and emerging initiatives, fiscal capacity, and human resources with the college mission.

Objectives/Strategies:

6.1 Develop a more robust and integrative data infrastructure in order to engage in a "culture of evidence" when developing initiatives that align with the college mission.

6.2 Research and implement best practices that support the long-term vision of student success.

6.3 Develop and implement a process to prioritize initiatives informed by community and student needs, evidence-based data, mandates, and institutional values.

6.4 Optimize the grants planning process to ensure capacity and resource availability.

VALUES:

All members of the campus community will demonstrate:

Inquiry: We embody an environment that promotes critical and creative thinking.

Respect: We demonstrate courtesy and tact.

Integrity: We act with honesty and fairness.

Trust: Our relationships and interactions are based on mutual understanding and good faith.

Equity: We embrace diverse and inclusive practices.

THE 2017-2022 STRATEGIC PLAN & ASSESSMENT

The Strategic Plan Steering Committee engaged the entire campus community in the strategic planning process. Students, faculty, staff and administrators were involved in the deliberative process as well as representation from the local community. Based on input gathered from across campus and the local community, the steering committee developed the new vision, mission, values, goals and objectives for the next five years. The new drafted plan was shared with the entire campus for input, including the shared governance bodies at different stages of the plan. Feedback from the campus community was incorporated into the drafted plan. The plan was then reviewed and approved by the Board of Trustees of the College.

Implementation takes effect in the fall of 2017 and will become the foundation for assessment across campus. Each unit/division/office on campus will identify goals and objectives in the plan that are linked to their area of work and undertake annual assessment. These annual assessment reports will be used to measure progress made in the attainment of the goals and objectives of the strategic plan.

Appendix D. SUNY Broome General Education Courses

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
Community Colleges	Broome	Mathematics	BUS	115	Business Statistics	Concepts and mechanics of measures of central tendency, measures of dispersion, probability, sampling theory, estimation, hypothesis testing, regression and correlation and other statistical techniques as they relate to general problems in business and economics.	3.00	3.00	148174
			CAS	109	The Mathematics of Gaming	The Mathematics of Gaming is a Liberal Arts Mathematics course. Using the backdrop of traditional casino games and horse racing, students will investigate relevant concepts that involve applications of arithmetic, algebra, probability and statistics. The students will learn different ways to present and interpret numerical and statistical data. The students will investigate mathematical models and simulations along with their applications. The students will investigate gaming strategies involving mathematical reasoning and psychological components such as risk versus reward, wagering and bluffing. Students will also be required to read and discuss the short novel "The Gambler" by Fyodor Dostoyevsky. Prerequisite-CorequisitePrerequisites: MAT 093 (4-credit) Integrated Arithmetic and Basic Algebra, MAT 091 Mathematical Literacy I, or equivalentCredits: 4Cross-listedMAT 109Hours4 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics.2. Represent mathematical information symbolically, visually, numerically and verbally.3. Employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems.4. Estimate and check mathematical results for reasonableness.5. Recognize the limitations of mathematical and statistical	4.00	4.00	299560

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
			MAT	109	The Mathematics of Gaming	The Mathematics of Gaming is a Liberal Arts Mathematics course. Using the backdrop of traditional casino games and horse racing, students will investigate relevant conceps that involve applications of arithmetic, algebra, probability and statistics. The students will learn different ways to present and interpret numerical and statistical data. The students will investigate mathematical models and simulations along with their applications. The students will investigate gaming strategies involving mathematical reasoning and psychological components such as risk versus reward, wagering and bluffing. Students will also be required to read and discuss the short novel "The Gambler" by Fyodor Dostoyevsky. Prerequisite-CorequisitePrerequisites: MAT 093 (4-Credits) Integrated Arithmetic and Basic Algebra, MAT 091 Mathematical Literacy I, or equivalent Credits: 4Cross-listedCAS 109Hours4 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics.2. Represent mathematical information symbolically, visually, numerically and verbally.3. Employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems.4. Estimate and check mathematical results for reasonableness.5. Recognize the limitations of mathematical and statistical	4.00	4.00	299616
				115	Mathematics for Gen Education	This course is designed to satisfy the SUNY General Education Requirements at the baccalaureate level. Its purpose is to enhance a student's quantitative literacy and critical thinking. The course topics illustrate the relevance of mathematics in society. Prescribed topics include analysis of propositions, assumptions and inductive and deductive arguments, the basic principles of counting, the laws of probablility and introductory descriptive and inferential statistics, modeling with functions, and financial mathematics.Prerequisite-CorequisitePrerequisite: MAT 091 Mathematical Literacy I or MAT 093 Integrated Arithmetic and Basic Algebra, 4-credit or equivalentCredits: 3Hours3 Class Hours	3.00	3.00	148677

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				116	Math for Gen Ed II	This course is the second course of a two-course sequence designed to satisfy the SUNY General Education Requirements at the baccalaureate level. It provides an interdisciplinary approach to quantitative literacy, critical thinking and the relevance of mathematics in society. Prescribed topics include the mathematics of saving and borrowing money, functions (especially linear, quadratic, logarithmic, exponential and/or sine) as models for interpreting data. Symmetry and fractals, voting or graph theory will also be included. Computer technology will be used throughout the course to explore these concepts and to prepare a project demonstrating an understanding of mathematics as it is applied in another discipline. The SUNY GER in mathematics is satisfied only upon completion of both MAT 115 and MAT 116.Prerequisite- CorequisitePrerequisite: MAT 092 Foundations for College Mathematics IICredits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Use e-mail.2. Use electronic spreadsheets.3. Use the Internet.4. Use electronic presentation software.5. Give examples of how math can be used to solve problems in everyday life and in his/her discipline.6. Investigate risk, return, and liquidity of investments.7. Calculate simple and compound interest.8. Use spreadsheet templates and web-based calculators to evaluate whether an annuity plan or	3.00	3.00	148678
				117	Elem Finite Math w Algebra	Solving systems of linear equations and linear inequalities, matrix algebra, linear programming, sets, counting, probability, statistics, finance, and logic.Prerequisite- CorequisitePrerequisite: MAT 093 Integrated Arithmetic and Basic Algebra, or equivalentCredits: 4Hours4 Class Hours	4.00	4.00	148679

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				118	Mathematics of Sustainability	The Mathematics of Sustainability is a liberal arts mathematics course that satisfies the SUNY General Education Requirement. Using the concept of sustainability as it relates to social, economic and environmental capitol, students will investigate relevant issues that involve applications of arithmetic, algebra, geometry and statistics. The students will learn different ways to present and interpret numerical and statistical data. In addition, they will investigate mathematical models and simulations in a variety of applications.The Mathematics of Sustainability is a liberal arts mathematics course that satisfies the SUNY General Education Requirement. Using the concept of sustainability as it relates to social, economic and environmental capitol, students will investigate relevant issues that involve applications of arithmetic, algebra, geometry and statistics. The students will learn different ways to present and interpret numerical and statistical data. In addition, they will investigate mathematical models and simulations in a variety of applications. Prerequisite- Corequisite Prerequisite: MAT 093 Integrated Arithmetic and Basic Algebra Credits: 3 Hours3 Class Hours Course Profile General Education Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics. 2. Represent mathematical information symbolically, visually,	3.00	3.00	261660
				119	Math for Elementary Ed I	An exploration of order of operations, fractions, equations of a single variable, graphing lines; visual display of data using charts and graphs, descriptive statistics, data analysis, hypothesis testing; area and perimeter of plane figures, volume and surface area of solids. Students are expected to explain the material as though to a target audience. Course uses a project-based instruction methodology. Intended only for elementary education majors, this course is the first course in a two course sequence (with MAT 120) for completion of SUNY General Education Math requirement.	3.00	3.00	148680
				120	Math for Elementary Ed II (WE)	Simple probability, odds, expected value; patterns, symmetry, tilings, sequences, and pattern block manipulation; functions of one or more variables with graphs and applications; right triangle trigonometry; sine, logarithmic, exponential, quadratic and logistic curves. Students are expected to explain the material as though to a target audience. Course uses a project-based instruction methodology. Intended only for elementary education majors, this course is the second course in a two course sequence (with MAT 119) for completion of SUNY General Education Math requirement. (Writing Emphasis Course)	3.00	3.00	148681

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				124	Statistics I	Sampling theory, organization and presentation of data, measures of central tendency, variance, standard deviation, exploratory data analysis, correlation and regression, normal distributions, Student?s t-distributions, binomial distributions, statistical inference, hypothesis testing, confidence intervals, use of a statistical software package.	3.00	3.00	148682
				127	Mathematical Literacy II	Mathematical and statistical reasoning are explored through topics in everyday life. It integrates quantitative literacy with percents, probability, mathematical modeling, and statistical thinking. Concepts are investigated with hands-on activities using medical, environmental, and financial examples. Communicating mathematics will be developed in this course.Prerequisite- CorequisitePrerequisites: MAT 091 Mathematical Literacy I, MAT 093 (4-credits) Integrated Arithmetic and Basic Algebra, or equivalentCredits: 3Hours3 Class HoursCourse ProfileObjectives of the Course:1. Scaling factors and area unit conversion.2. Calculating interest rates and estimation.3. Calculating with percentages.4. Applied uses of percentages.5. Understand Absolute and relative change.6. Understanding designs of statistical studies.7. Reading visual display of data.8. Understanding visual display of data.9. Using spreadsheet to organize data.10. Reading, interpreting, and creating bar and pie charts.11. Reading contingency tables.12. Reading and creating statistical graphs of quantitative date.13. Understanding and calculating measure of central tendency.14. Understanding and calculating standard deviation.15. Understanding and calculating weighted averages.16. Understanding linear models with words, tables, graphs, and equations.17. Understanding piecewise linear models.18. Approximating data with linear models, scatter plots and lines of best fit.19.	3.00	3.00	322575
				130	Applied Algebra and Trig	Designed for students in the Engineering Technologies only, the course covers algebra and trigonometry emphasizing computational skills and graphing using application problems from technology fields. Topics include: function definition, graphs, exponents, logarithms, trigonometric identities, complex numbers and vectors.	4.00	4.00	148683

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				136	College Algebra and Trig	Rational exponents; radicals; polynomial long division; rational expressions; solving quadratic equations and inequalities; polynomial functions; absolute value equations and inequalities; complex numbers; operations of functions; inverse functions; properties of exponential and logarithmic functions; trigonometric functions; reference angles; radian measure; graphs of sine, cosine, and tangent; basic trigonometric identities.Prerequisite-CorequisitePrerequisite: MAT 096 Elementary Algebra and Trigonometry or equivalentCredits: 4Hours4 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:Perform skills in three categories: Algebra, Geometry, and Trigonometry.Note: Throughout the course the students are expected to solve applied problems related to the topics of the course.Algebra, Geometry, Trigonometry:1. Perform arithmetic operations and simplification of rational expressions including complex fractions.2. Solve absolute value linear equations and inequalities using analytic methods.3. Perform operations and simplify expressions involving radicals and rational exponents.4. Perform operations and simplify expressions involving complex numbers.5. Rationalize denominators and numerators.6. Understand the definition of a function of x and find the domain and range of a function.7. Use function notation.8. Review linear functions and their applications.9. Perform	4.00	4.00	148684
				146	Applied Business Calculus	Review of analytic geometry of lines and parabolas; functions, and their graphs; limits and continuity; differentiation rules and applications; integration techniques and applications; exponential and logarithmic functions and applications. Recommended for Social Science, Health Science and Business students. Not for Mathematics majors or Science majors in the A.S. Degree program.Prerequisite- CorequisitePrerequisite: MAT 136 Intermediate Algebra and Trigonometry or equivalentCredits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. After a brief review:Write and recognize the equations of lines and parabolas.Define a function and determine the domain of a given function.Graph polynomials, rational functions and functions involving radicals.Find the points of intersection of two functions.Understand the composition of functions.2. Understand the concept of limit and use limit rules to evaluate limits.3. Understand the concept of continuity and find points of discontinuity of a given function.4. Evaluate limits from a given graph.5. Define a derivative and find derivatives of functions using the definition.6. Understand the geometric interpretation of a derivative (slope of tangent line).7. Understand the difference between a function and its derivative on a graph.8. Use the rules of differentiation to find derivatives of more complex functions.9. Find	3.00	3.00	148685

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				156	Algebra and Trig for Calculus	Graphs of rational functions, asymptotes, exponential and logarithmic equations, conic sections, matrix arithmetic and matrix solutions to systems of equations, determinants, trigonometric identities and equations, Law of Sines, Law of Cosines, vectors, polar graphs, parametric graphs, polar form of complex numbers, powers and roots of complex numbers, limits of functions using tables.Prerequisite- CorequisitePrerequisite: MAT 136 College Algebra and Trigonometry or equivalentCredits: 4Hours4 Class HoursCourse ProfileLearning Outcomes of the Course:Perform skills in three categories: Algebra, Geometry, and Trigonometry.Note: Throughout the course the students are expected to solve applied problems related to the topics of the course.Upon successful completion of this course the student will be able to:Algebra, Geometry, Trigonometry Objectives:1. Determine the horizontal, vertical, and oblique asymptotes of a rational function.2. Solve rational, polynomial, exponential, logarithmic, trigonometric equations analytically.3. Solve rational and polynomial inequalities analytically.4. Graph Inx, ex, logax and ax.5. Name the equation of a transformed basic function/relation by viewing its graph.6. Construct a graph of a rational function from its intercepts and asymptotes.7. Solve systems of linear equations using substitution, elimination and row operations on matrices.8. Perform the partial fraction decomposition of a rational expression.9. Solve systems of	4.00	4.00	148688
				160	Applied Calculus I	Designed for students in the Engineering Technologies only, this course covers the mechanics of calculus using application problems from technology fields. Topics include: equations of tangent lines; limits; differentiation and integration of algebraic, logarithmic, exponential, and trigonometric functions; product rule, quotient rule, and chain rule; implicit differentiation; related rates; maxima and minima; differentials; the definite integral and applications to finding area, center of gravity, volume of revolution and work done; numerical integration.	4.00	4.00	148689

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				181	Calculus I	A university parallel calculus course covering functions, limits and continuity. Differentiation and integration of polynomial, rational, trigonometric, logarithmic, exponential functions using computational and intuitive methods. Applications including curve sketching, rectilinear motion, related rates, maxima and minima. Summation, integration and the Fundamental Theorem of Calculus, and applications of the definite integral.NOTE: Students may not use more than one of the following to meet graduation requirements: MAT 146, MAT 160, MAT 181.Prerequisite- CorequisitePrerequisite: MAT 156 Algebra & Trigonometry for Calculus or equivalentCredits: 4Hours4 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Find limits using computational and intuitive methods.2. Understand the formal definition of a limit.3. Determine continuity of functions.4. Find the derivative of a function using the limit definition.5. Graph, differentiate and integrate polynomial, rational, trigonometric, logarithmic, and exponential functions, using computational and intuitive methods.6. Find derivatives by the chain rule.7. Find implicit derivatives.8. Understand differentials and linear approximations and their relation to the derivative.9. Understand the Mean Value Theorem and Rolle's Theorem.10. Set up and solve maxima and minima problems and related rate problems.11. Use the first and second	4.00	4.00	148690
				182	Calculus II	Exponential and logarithmic functions from an integral viewpoint, the calculus of inverse functions. Techniques of integration including integration by parts, partial fractions and trigonometric substitution. Improper integrals. Sequences, detecting convergence, and L'Hospital's rule. Infinite series, tests for convergence, power series, Maclaurin series and Taylor series. Polar curves, parametric equations and conics in calculus.Prerequisite-CorequisitePrerequisite: MAT 181 Calculus ICredits: 4Hours4 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Define a sequence and a series.2. Test series for convergence.3. Test alternating series for absolute or conditional convergence.4. Perform operations with power series.5. Find the radius of convergence of a power series.6. Develop Taylor and Maclaurin series expansions for a function.7. Employ various integration techniques including integration by parts, trigonometric substitution and partial fractions.8. Evaluate improper integrals.9. Solve elementary differential equations.10. Compute limits using L'Hopital's Rule.11. Transform from rectangular to polar coordinates and from polar to rectangular.12. Graph in polar coordinates.13. Compute area in polar coordinates.14. Compute arc length in polar coordinates.15. Perform applications of integration.16. Use Calculus with parametric equations.17. Recognize graphs and perform	4.00	4.00	148691

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				224	Statistics II	Review of probability fundamentals, discrete random variables and probability distributions. The F distributions, chi-squared distributions, hypothesis testing, analysis of variance, linear regression and correlation, nonlinear and multiple regression, the analysis of categorical data, nonparametric procedures, use of a statistical software package.	3.00	3.00	148692
				245	Design of Experiments	This course is an introduction to the most common types of statistical designs and analyses of experiments. Topics include single-factor experiments with randomized blocks, Latin squares, incomplete blocks, two-factor experiments, 2^k designs, fractional designs, response surface techniques, and other selected topics. Technology will be used throughout the course.	3.00	3.00	148693
				250	Discrete Mathematics	Sets, functions, mathematical induction, relations, partially ordered sets, combinatorics including permutations, the pigeonhole principle, binomial and multinominal coefficients, recurrance relations, generating functions, the principle of inclusion-exclusion. Graph theory, including paths and connectedness, minimum length paths, Eulerian and Hamiltonian graphs, graph isomorphisms, trees, planar and nonplanar graphs.	4.00	4.00	148694
				260	Applied Prob and Statistics	Descriptive statistics, probability and random variables, discrete and continuous probability distributions, joint distributions, sampling distributions, confidence interval estimates, hypothesis tests on means, categorical populations, and the form of distributions, linear regression analysis on bivariate and multivariate data, single factor ANOVA, randomized block experiments, all with a strong emphasis on engineering applications and the use of statistical software to simulate, model, and analyze data.	4.00	4.00	148695
				264	Linear Algebra	Linear equations and matrices, vector spaces, inner product spaces, linear independence, linear transformations. Determinants and Cramer?s rule, systems of homogeneous equations, Gram-Schmidt process and diagonalization. Eigenvalues and eigenvectors and applications.	4.00	4.00	148696
				266	Introduction to Real Analysis	This course provides a rigorous introduction to the concepts of axiomatics, sets, measures, functions, sequences, series, integration/differentiation and metric spaces. Emphasis will be placed on writing mathematics clearly, especially regarding proofs. Recommended for Mathematics majors or Computer Science and Engineering Science students as advised.Prerequisite-Corequisite Prerequisite: MAT 281 Calculus III or permission of the instructorCredits: 3Hours 3 Class Hours	3.00	3.00	148697

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				281	Calculus III	Triple integrals with cylindrical and spherical coordinates. Vector geometry and vector calculus in two and three dimensions. Calculus of multivariable functions: gradient, extrema and optimization (with and without constraints). Line and surface integrals. Green's theorem and Stokes' theorem.	4.00	4.00	148698
				282	Diff Equations w Linear Alg	First and second order differential equations. Matrices, determinants, eigenvalues and eigenvectors, and systems of linear equations. Linear independence, the Wronskian, and differential operators. Homogeneous and nonhomogeneous linear differential equations with constant coefficients. Methods of undetermined coefficients, and variation of parameters. Systems of linear differential equations, Laplace transforms, and power series solutions.	4.00	4.00	148699
		Natural Sciences	ANT	112	Introduction to Archaeology	An introduction to current archaeological issues, methods, and theories. The nature of archaeological data and the means by which they are gathered, analyzed, dated, and interpreted, will be considered by reviewing current research on both prehistoric and historic sites. Scientific methods of research formulation, survey, excavation and analysis will be emphasized in both the laboratory and lecture. Credits: 4Hours 3 Class Hours, 3 Laboratory Hours	0.00	4.00	148015
				113	Intro Biological Anthropology	An introduction to the biological and evolutionary history of humans. The course will consider basic concepts of evolutionary theory and human genetics, the fossil record for human evolution, the behavior and ecology of living non-human primates, and human population biological adaptation and diversity. Laboratory will include study of primate evolution, human anatomy, and DNA analysis. The laboratory also requires a full weekend field trip.	0.00	4.00	148016
			ART	129	The Chemistry of Art	This course is a study of art from a scientific perspective. The molecular basis of art will be explored by using the atomic theory to explain how paints are made, the function of binders and varnishes, the absorption of light, the structure of ceramics, the process of photography, and the materials used for sculpture. The atomic structure of the material will be used to explain its function for the artist. The use of chemistry in art conservation, restoration, and the detection of forgery will also be investigated. This course includes a hands on laboratory and is intended for non-science majors.	0.00	4.00	298416

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
			BHM	127	Kitchen Chemistry	You are what you eat. Cooking and recipes may be the oldest and most widespread application of chemistry and chemical research. This course will cover the basic chemistry of the main components of food, carbohydrates, lipids, and protein, as well as water, vitamins, minerals, enzymes, food additives, flavors, and colors. It will also cover the processing of food and the use of fermentation in the production of yogurt, cheese, wine, and beer. The laboratory component will give the students a chance to perform the reactions presented in lecture.	0.00	4.00	212386
			BIO	111	General Biology I	Principles of evolution and ecology as unifying themes in biology. Evolutionary processes and ecological adaptations illustrated by plant and animal diversity. Cellular life processes. Current environmental problems. The laboratory includes physically demanding field trips. Accommodations can be made for students with disabilities.	0.00	4.00	148093
				112	General Biology II	Principles of evolution and ecology as unifying themes in biology. The human animal and its systems. Concepts of animal behavior. Classical genetics, current concepts of gene function and human genetics. Organismal growth and development. Current environmental problems. The laboratory includes physically demanding field trips. Accommodations can be made for students with disabilities.	0.00	4.00	148094
				115	Ecology of the National Parks	A biological survey of our National Park System concentrating on the variety of ways living organisms respond and adapt to meterological, geological, and ecological pressure.	0.00	4.00	148095
				117	Principles of Biology I	To give science majors a working foundation of biology and to prepare them for transfer to a four-year institution and upper level biology courses. The biological principles covered include, but not limited to, Ecology, Conservation Biology, and Evolution. The underlying themes of unity and diversity of living organisms will be used to amalgamate the topics covered. Scientific methodology will be emphasized in both laboratory and lecture using current publications to support discussion as well as developing and executing scientific experimentation.Note: Must have taken High School Regents Biology and Regents Chemistry	0.00	4.00	148096
				118	Principles of Biology II	A continuation of Principles of Biology I. To give science majors a working foundation of biology to prepare them for transfer to a four-year institution and upper level biology courses. The biological principles covered include, but not limited to: Molecular Biology, Cellular Structure and Function, and Genetics. The underlying themes of unity and diversity of living organisms will be used to amalgamate the topics covered. Scientific methodology will be emphasized in both laboratory and lecture using current publications to support discussion as well as developing and executing scientific experimentation.	0.00	4.00	148097

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				131	Anatomy & Physiology I	Normal structure (gross and microscopic) and function of the skeletal, muscular and nervous systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.	0.00	4.00	148100
				132	Anatomy & Physiology II	A continuation of BIO 131 Anatomy & Physiology I covering the circulatory, respiratory, digestive, urinary, reproductive and endocrine systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.	0.00	4.00	148101
				140	Pathophysiology	Symptoms, syndrome and etiology of pathogenic processes affecting the function and structure of the body.	3.00	3.00	148102
				150	Microbiology	An introduction to a basic understanding of the biology of microorganisms, with a focus on bacteria. Course topics include biochemistry, cell structure and function, metabolism, microbial ecology, microbial genetics, applied microbiology, microbial control, epidemiology, pathogenesis and microbial disease. Laboratory exercises reinforce those principles discussed in lecture.	0.00	4.00	148103
				200	Ecology:The Everglades	A scientific yet sensitive look at one of the world's rare and endangered wilderness areas. Everglades ecology is studied through an extensive wilderness camping experience in Everglades National Park, involving a minimum of 90 hours of classroom and field instruction. Offered during the January Intermission.	0.00	4.00	148106
				202	Biology Seminar	The course is designed specifically for students interested in pursuing careers in the biological sciences. Students will be asked to critically analyze both current and historical readings, experiments and controversial topics within the field. An emphasis will be placed on showing the special niche of the biological sciences within the context of both the physical and social sciences. A weekend field trip is required.	1.00	1.00	148107
				211	Self Organizing Systems	Introduction to the fundamental principles involved in the self-organization of living systems, extending from molecules, to cells, tissues, organisms and social systems. Focus on developing an understanding of emergent properties, based on computational investigations of processes such as diffusion, protein folding and clustering. Analytical procedures for characterizing self-organizing systems. Needed by Engineering Science students transferring to BU in Bioengineering.	4.00	4.00	148108

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				212	Ecology (WE)	An introduction to basic principles of ecology, including ecosystem ecology, evolutionary ecology, major terrestrial and aquatic biomes, population and community ecology. Labs have an emphasis on those ecosystems found in the N.E. U.S. Field studies will emphasize the use of the scientific method and approaches used by ecologists in the field. Prerequisite- Corequisite Prerequisite: BIO 117 Principles of Biology I.Corequisite: BIO 212L Ecology Laboratory. Credits: 4 Cross-listed ENV 212 Hours 3 Class Hours, 3 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Demonstrate knowledge of the basic principles of ecology.2. Demonstrate knowledge of the basic principles of ecosystems.3. Analyze and discuss current scientific literature.4. Apply basic ecological principles to explain the interactions of organisms with their environment and with each other.5. Apply basic ecological principles in planning and conducting field and laboratory studies.	0.00	4.00	148109
				216	Immunology	An introduction to the basic concepts in immunology, including development of the immune system, innate immunity, immunoglobulin structure and genetics, antigen-antibody reactions, the major histocompatibility complex and antigen presentation, T cell receptors, T cell activation and effector functions, anergy and apoptosis, adhesion molecules, phagocytic cell function, immune responses to infections organisms and tumors, autoimmune diseases, allergies, immune deficiencies and AIDS.	3.00	3.00	148110
				218	Orinthology	An in-depth study of the world of birds indigenous to the Northeast as well as a look at how humans have affected the survival of many avian populations. The course will cover the anatomy and physiology of birds; their habitats and behavior, including field identification of birds by sight and sounds.	0.00	2.00	148111
			CHM	120	Fundamental Chemistry	Composition of substances, atomic structure, periodicity, bonding, chemical equations, state of matter, aqueous solutions, pH, and an introduction to organic chemistry and biochemistry.	0.00	4.00	148221
				121	Forensic Sciences	The science behind the examination of firearms, cartridges, explosives, drugs and other types of physical evidence by the crime lab is presented. Emphasis on proper handling of substances found in crime scene investigations. Laboratory techniques include many modern instrumental methods, such as gas chromatography, infrared and mass spectroscopy as used in today's modern crime labs.	0.00	4.00	148222

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				123	Environmental Science I	Is your water safe to drink? Worry about hotter climates, holes in the ozone layer, pesticide residues in food, and extinction of species? This course is designed to give the student a better scientific background for understanding the environment from a chemical viewpoint and do hands on laboratory investigations to better appreciate the ecosystem in which we live. Experiments in drinking water, groundwater, air, and soil analysis using EPA methodology. Analysis will include Gas Chromatography, Mass Spectrometry, Liquid Chromatography, Microbiology and Atomic Absorption Spectroscopy of real world samples.	0.00	4.00	148223
				124	Environmental Science II	A continuation of CHM 123 Environmental Science: this course will include biotec, geologic, hydrologic, and atmospheric factors of the environment, human impacts and interdisciplinary issues. Federal and State regulations and approved methodology for monitoring and remediation will also be discussed as illustrated by case studies.	3.00	3.00	148224
				125	Fire Protection Chemistry	Fundamental concepts of inorganic chemistry. Composition of substances, kinetic and molecular theories, atomic structure and bonding, solutions and colloids, ions in solution and introduction to organic chemistry. For Fire Protection Technology students.	0.00	4.00	148226
				126	Marine Chemistry	Would you like to learn more about the Earth?s Oceans? They cover 71% of Earth but are often neglected because we are land-based creatures. The Earth?s oceans are not simply water, but a mixture of various compounds. The student will learn the basic principles of chemical oceanography. The course topics presented will allow an understanding of the coupled atmospheric/ocean system and also demonstrate the current and future effects of human activities on the coastal and oceanic environments. The chemical properties of the ocean are important to understand because the marine environment supports the greatest abundance of life on earth. Credits: 4 Hours 3 Class Hours, 3 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Discuss and explain the chemical origin and history of the Oceans.2. Discuss and explain the hydrological cycle.3. Discuss and explain the chemistry of marine water.4. Discuss and explain the influence of the atmosphere on ocean chemistry.5. Discuss and explain the environmental issues involved in coasts, estuaries, and wetlands.6. Discuss and explain the energy flow through marine trophic levels.7. Discuss and explain the role of chemical nutrients and Liebig?s law of minimums.8. Discuss the chemistry of deep sea vents.9. Discuss and explain the chemistry and envrionmental impact of oil spills at sea.10. Discuss and explain the effect of temperature on	0.00	4.00	202443

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				127	Kitchen Chemistry	You are what you eat. Cooking and recipes may be the oldest and most widespread application of chemistry and chemical research. This course will cover the basic chemistry of the main components of food, carbohydrates, lipids, and protein, as well as water, vitamins, minerals, enzymes, food additives, flavors, and colors. It will also cover the processing of food and the use of fermentation in the production of yogurt, cheese, wine, and beer. The laboratory component will give the students a chance to perform the reactions presented in lecture.	0.00	4.00	212389
				129	The Chemistry of Art	This course is a study of art from a scientific perspective. The molecular basis of art will be explored by using the atomic theory to explain how paints are made, the function of binders and varnishes, the absorption of light, the structure of ceramics, the process of photography, and the materials used for sculpture. The atomic structure of the material will be used to explain its function for the artist. The use of chemistry in art conservation, restoration, and the detection of forgery will also be investigated. This course includes a hands on laboratory and is intended for non-science majors. Credits: 4Cross-listedART 129Hours3 Class Hours, 3 Laboratory Hours	0.00	4.00	313358
				133	Survey of Organic Chemistry	Fundamental treatment of organic chemistry, nomenclature, properties of selected functional groups, mechanisms, stereochemistry and synthetic methods.	3.00	3.00	148227
				141	Gen Organic Biochemistry I	Introductory treatment of general chemistry for the non-science student emphasizing applications of chemistry in everyday life. Measurements, atoms and bonding, the states of matter, nuclear processes, oxidation and reduction, solutions, acids and bases. Applications include energy sources, effects of radiation, the environment, life processes, testing of advertising claims. For Liberal Arts non-science students.	3.00	3.00	148228
				142	Gen Organic Biochemistry II	Continuation of CHM 141 General, Organic and Biochemistry I. A survey of organic chemistry including nomenclature, reactions of selected functional groups, stereochemistry and biochemistry. Applications include consumer products, living systems, food and metabolism. For Liberal Arts non-science and Allied Health students.	3.00	3.00	148230
				145	General Chemistry I	Comprehensive treatment of general chemistry for the science-oriented student. Builds on their prior chemistry, with emphasis on the basic laws and theories of chemistry and their derivation from experimental evidence. Presents the qualitative and quantitative aspects of matter's composition and changes and their unifying principles. Includes physical and chemical properties, periodicity of elements, stoichiometry, current atomic and bonding theories, laws and theories of physical states and changes of state, solution chemistry, and thermochemistry.	0.00	4.00	148232

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				146	General Chemistry II	Continuation of CHM 145 Chemistry including thermodynamics, kinetics, equilibrium, equilibrium in aqueous solution, acids and bases, coordination chemistry and electrochemistry.	0.00	4.00	148234
				245	Organic Chemistry I	A fundamental treatment of organic chemistry. Organic nomenclature, chemical properties of selected functional groups, mechanisms, stereo-chemistry and synthetic methods. For Liberal Arts science majors and Engineering Science students with departmental approval.	3.00	3.00	148236
				246	Organic Chemistry II	A continuation of CHM 245 Organic Chemistry including spectroscopy and introduction to molecules of biological importance.	3.00	3.00	148238
				247	Biochemistry	A study of the chemical and physical properties of biomolecules occurring in living organisms including proteins, carbohydrates, lipids and nucleic acids. Enzyme kinetics particularly emphasized. Experiences in the laboratory involve the application of techniques used in biochemical investigations.Prerequisite- CorequisitePrerequisites: CHM 245 Organic Chemistry I Credits: 4Hours3 Class Hours, 3 Laboratory HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Understand how chemical models can be developed and tested on the basis of empirical evidence and the scientific method.2. Recognize that modern chemical science is based upon the idea of atoms, their combination in compounds, and their recombination in the course of chemical reactions.3. Understand that atomic, molecular and ionic particles are in constant motion.4. Realize that physical and chemical properties of matter result from subatomic particles that behave according to physical rules not apparent in the behavior of macroscopic objects, and they must realize the importance of spectroscopy in establishing this behavior.5. Understand how atoms combine in covalent molecules, coordination complexes and ionic solids, and understand the importance of the 3-D arrangements of atoms and ions in these molecules.6. Understand the principal laws of thermodynamics and how these dictate the behavior of chemical substances.7. Possess a	0.00	4.00	298395

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				265	Analytical Chemistry	Analytical Chemistry serves as an introduction to laboratory techiques with an emphasis on quantitate data acquisition and analysis. By course's end, the student should be able to identify the appropriate laboratory technique to solve several types of chemistry problems, thoroughly explain the implementation of several techniques, statistically analyze data, and communicate results in standard scientific research paper format. Techniques investigated include atomic spectroscopy, gas chromatography, high-performance liquid chromatography, gravimetric analysis, mass spectrometry, and spectrophotometry, as well as several titration and electrochemical techniques.Prerequisite- CorequisitePrerequisites: CHM 146 and 146L General Chemistry II and General Chemistry II Laboratory, with a minimum grade of "D", MAT 136 College Algebra and Trigonometry, with a minimum grade ot ?D"Corequisites: CHM 265 Analytical Chemistry Laboratory Credits: 4Hours3 Class Hours, 4 Laboratory HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Describe the basic scientific principles for following techniques: atomic spectroscopy, gas chromatography, high-performance liquid chromatography, gravimetric analysis, mass spectrometry, spectrophotometry, as well as several titration and electrochemical techniques.2. Perform standard laboratory calculations. a. Carry uncertainty	0.00	4.00	298415
				290	Forensic Toxicology	Application of the principles of forensic toxicology and the related forensic sciences within the scope of medical-legal investigation. Drug and poison analysis, examination of physical evidence and death investigation. Laboratory sessions will provide basic knowledge of forensic analysis utilizing microscopy, gas chromatography, thin layer chromatography and spectroscopy.	0.00	3.00	148240
			CLT	206	Immunohematology	An introduction to the field of blood banking, including the study of theoretical knowledge of blood groups and blood grouping, component and transfusion therapies, transfusion reactions, and allo- and auto-antibody formation. In laboratory sessions, the student performs ABO and Rh grouping, antibody identification, and compatibility testing.	2.00	2.00	148267
				208	Pathogenic Microbiology	An introduction to microorganisms of importance in human health and disease. Topics include the morphology, isolation, identification, and clinical significance of pathogens, the interrelationships of microorganisms and human hosts, and the prevention and control of infectious diseases. Emphasis on bacteriology; includes survey of mycology, parasitology and virology.	3.00	3.00	148269

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				209L	Pathogenic Microbiology Lab	An overview of the basic clinical microbiology techniques, including collection and processing of clinical specimens, media used for isolation and identification of organisms common to human flora, aseptic techniques, staining procedures, susceptibility testing, and isolation techniques. This course also includes a review of the main components and functions of the human immune system.	1.00	1.00	148270
				210	Diagnostic Microbiology Lab	A comprehensive study of diagnostic methods for identification of normal and pathogenic microorganisms from clinical materials by appropriate laboratory techniques. Emphasis on cultural, microscopic and biochemical characteristics, chemical significance, collecting and processing of clinical specimens, diagnostic tests, and susceptibility tests.	0.00	3.00	148271
				216	Immunology	An introduction to the basic concepts in immunology, including development of the immune system, innate immunity, immunoglobulin structure and genetics, antigen-antibody reactions, the major histocompatibility complex and antigen presentation, T cell receptors, T cell activation and effector functions, anergy and apoptosis, adhesion molecules, phagocytic cell function, immune responses to infections organisms and tumors, autoimmune diseases, allergies, immune deficiencies and AIDS.	3.00	3.00	148274
				220L	Serological Techniques	An introduction to the theory, practice, and clinical significance of serological testing for the clinical laboratory setting. Principles and practical applications of laboratory methods based on both traditional serological methods and molecular methods for detection and confirmation of disease.	1.00	1.00	148275
				240	Clinical Affiliation I	Performance of procedures in clinical chemistry, immunology-serology, and immunohematology in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing, quality control, preventative maintenance, laboratory safety, and significance of abnormal results. Clinical hours: 40 hr/week for 4 weeks.	4.00	4.00	148276
				242	Clinical Affiliation III	Performance of procedures in microbiology in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing, quality control, preventative maintenance, laboratory safety, and significance of abnormal results. Clinical Hours: 40 hr/week for 2 weeks.	2.00	2.00	148278

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
			ENV	212	Ecology (WE)	An introduction to basic principles of ecology, including ecosystem ecology, evolutionary ecology, major terrestrial and aquatic biomes, population and community ecology. Labs have an emphasis on those ecosystems found in the N.E. U.S. Field studies will emphasize the use of the scientific method and approaches used by ecologists in the field. Prerequisite- Corequisite Prerequisite: BIO 117 Principles of Biology I.Corequisite: BIO 212L Ecology Laboratory. Credits: 4 Cross-listed BIO 212 Hours 3 Class Hours, 3 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Demonstrate knowledge of the basic principles of ecology.2. Demonstrate knowledge of the basic principles of ecosystems.3. Analyze and discuss current scientific literature.4. Apply basic ecological principles to explain the interactions of organisms with their environment and with each other.5. Apply basic ecological principles in planning and conducting field and laboratory studies.	0.00	4.00	148489
			MLT	210	Diagnostic Microbiology Lab	A comprehensive study of diagnostic methods for identification of normal and pathogenic microorganisms from clinical materials by appropriate laboratory techniques. Emphasis on cultural, microscopic and biochemical characteristics, chemical significance, collecting and processing of clinical specimens, diagnostic tests, and susceptibility tests.	0.00	3.00	148746
				220L	Serological Techniques	An introduction to the theory, practice, and clinical significance of serological testing for the clinical laboratory setting. Principles and practical applications of laboratory methods based on both traditional serological methods and molecular methods for detection and confirmation of disease.	1.00	1.00	148750
				240	Clinical Affiliation I	Performance of procedures in clinical chemistry, immunology-serology, and immunohematology in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing, quality control, preventative maintenance, laboratory safety, and significance of abnormal results. Clinical hours: 40 hr/week for 4 weeks.	4.00	4.00	148751

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				242	Clinical Affiliation III	Performance of procedures in microbiology in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing, quality control, preventative maintenance, laboratory safety, and significance of abnormal results. Clinical hours: 40 hr/week for 2 weeks.	2.00	2.00	148753
			PHS	111	Earth Investigations	Investigate Earth?s atmosphere, its geology, and its place in the universe. Students will discover how weather and/or geology affect our every-day lives and how we use and modify our physical surroundings. Students will learn how the Earth compares to the other planets and how our solar system compares to the universe. Current scientific topics may be introduced by both students and instructors. Binghamton?s regional weather and geology will be emphasized. Laboratory activities, including a field trip and a student project are included in this course. This course does not meet science requirement for LAAA, LAAS or BAAS degree. Credits: 3 Hours 2 Class Hours, 2 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. List and explain the steps in the scientific method.2. Develop a hypothesis, test, modify, compare other hypotheses, and come to consensus on a theory as to what is hidden from view by using a cube with a hidden side.3. Write an original scientific research project. Students will form a hypothesis, design data collection and an analysis schemes to prove or disprove their hypothesis. Students will learn how to write a scientific report by using a standardized scientific paper format.4. List the elemental composition of the Earth?s crust and apply how these elements combine to form minerals. Students should also be able to use the definition of a mineral and their physical properties to identify minerals.5.	0.00	3.00	148880
				112	Interactions - Natural World	Explore the relationships between living organisms and their physical environment in this activity-based course. Study Earth's atmosphere and seasons and explore the resulting adaptations of living things, for example through photosynthesis and respiration. Investigate rocks and minerals as the building blocks of the solid Earth and cells as the basic unit of life. Biologic and earth science concepts are integrated to show the prehistoric and modern interactions among Earth's atmosphere, its rocks and minerals and its life. Students are expected to become personally involved with in-class and at-home activities and projects. Learning is accomplished by experimentation and discussion within cooperative groups; the laboratory becomes the classroom. Appropriate for Elementary Education and Early Childhood majors.	0.00	4.00	148881

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				113	Astronomy Exploring Universe	Exploring the universe is an exciting challenge as you are led away from earth on a journey through the cosmos and back again. Starting with a look at the historical origin of the constellations and a basic knowledge of the sky, you are taken into the realm of the stars, galaxies, and the universe at large. Current theories of the birth, life, and death of stars will show you the possibilities of extraterrestrial life. Theories of the origin of the universe will give you an informed opinion of the nature of existence itself. The return trip to earth brings you a look at our solar system with the NASA provided knowledge of the planets. Extensive hands-on experience is generated in the laboratory, which makes full use of the off-campus Link Planetarium and Kopernik Observatory.	0.00	4.00	148882
				114	Meteorology Investig Weather	Does Binghamton have some of the worst weather in the nation? Is severe weather getting worse? How accurate are the weather forecasts? If you have ever wondered about these questions and others, this course will help you find these answers. This introductory course intends to educate you on the fundamentals of the Earth's atmosphere, weather and climate. Topics including: the atmosphere and its energy transformations, the seasons, atmospheric optics, water vapor, precipitation, and the wind are woven together to enable you to understand how weather works and what constitutes severe weather. Other topics of study might include El Nino, ozone depletion and global warming. You will participate in the act of doing science by investigating a weather topic. After taking this course, you should have a better understanding of the science of meteorology, how science progresses, and why Binghamton has such cloudy weather. Laboratory activities including weather data collection and analysis are included in this course.	0.00	4.00	148883

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				115	Physical Geology:Dynamic Earth	Why does Binghamton have such steep hills and flat valleys? Why do we find such a great variety of rocks in our backyard? Why doesn't Binghamton have more earthquakes or volcanoes? If you have ever wondered about these questions and others like them, this course will help you to discover the answers to them. This course will show you how geologists collect information, analyze and interpret observations. Course content emphasizes the differences between rocks and minerals and what those differences mean to our region. Local examples of streams, the effects of glaciers, volcanoes, earthquakes and why mountains and oceans form. Other topics may be substituted in appropriate parts of the course depending on exciting developments on our dynamic planet. You will gain working knowledge of the geologic wonders that surround you at home and when you travel. Laboratory activities in learning communities allows students to gain a hands-on understanding of geologic concepts and processes.	0.00	4.00	148884
				116	Energy and the Environment	Learn about the causes and effects of global warming and other environmental threats including ozone depletion and acid rain. How does the way we use energy affect our changing global climate? How much energy does it take to drive our cars or light, heat and cool our homes? How can we save energy and will saving energy make a difference? Discover positive things we can do as a society and as individuals to help reduce human impact on the climate. Investigate the sources of the energy we use every day. Energy sources include: fossil fuels, nuclear, and alternative sources such as solar, wind, biomass, hydropower and geothermal energy. Current scientific topics may be introduced by both students and instructors. Laboratory experience will include hands-on exercises, field trips and an analysis of your own energy use.	0.00	4.00	148885
				117	Exploring Everyday Phenomena	This course uses activities that engage the students in hands-on learning of common physical concepts by experimentation. The course will improve students? perspectives and comfort with science while promoting scientific literacy. There will be no distinction between lab and lecture since the activities are an integral part of the teaching and learning process in the course. The methods and ideas of the course will usually be based on the use of commonly available materials. Group-based activities include observations and measurements of size perspective, solids, liquids, gases, heat, simple machines, magnets, static electricity and electrical devices. Appropriate for Elementary Education and Early Childhood majors.	0.00	4.00	148886

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				123	Natural Disasters	Tsunamis! Tornadoes! Earthquakes! Floods! How likely are you to have to deal with a natural disaster? What is the likelihood that Binghamton will have another flood like the one in June 2006? This course examines the science behind natural disasters and how this results in loss of life and property. Course will use case studies of natural disasters to analyze the forces of nature and their impact.	0.00	4.00	148887
				125	Historical Geology	Did an asteroid really cause the extinction of the dinosaurs? Where did life come from and how did it evolve? Why do I find fossils of marine organisms in my back yard? If you have ever wondered about these questions, you can discover the answers by taking this course. This course intends to give you a perspective of the enormity of the geologic history of the Earth and the life that lives on it. You will learn how scientists know how old a rock or fossil is and what the conditions in the past were like when it formed. You will also investigate how scientific thinking about the geologic past have changed with respect to the age of the Earth and what the dinosaurs were like. By looking at some bizarre groups of fossils, questions about evolution, speciation and chance will be examined. Also, a detailed study of the local geologic past will reveal that Binghamton was on the shoreline of an ancient tropical sea about 365 million years ago. Course includes laboratory activities.	0.00	4.00	148888
				210	Mountain Geology and Climate	This course entails an in-depth study of processes affecting topography in mountainous regions, focusing on the geological and meterological aspects of mountain formations. The geological portion of study includes rock formations and units of the region, orogenesis (mountain formation), glacial geology and mass wasting. The meteorological portion of study includes the climatology of the region, orographic uplift and the influence of mountains on severe and hazardous weather. The highlight of the course is intensive field study in the White Mountains of New Hampshire, including hiking of five or more miles per day with significant elevation gain.Credits: 4Hours3 Class Hours, 3 Laboratory HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Identify key geologic features in mountainous terrain.2. Interpret past geologic settings and environments based on present day observations.3. Identify key meteorological phenomenon that occur in mountainous regions.4. Interpret past climate and meteorological conditions based on present day geological observations.5. Use basic tools geologists and meteorologists use in observational field study.	0.00	4.00	320288

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				226	Oceanography	Oceanography is the study of fundamental principles of ocean science. A wide range of subjects will be presented including marine organisms, ocean currents, waves, geophysical fluid dynamics, plate tectonics, the geology of the ocean floor, tides, coastal processes, and the biology of diverse ecosystems such as deep sea vents, coral reefs, and estuaries. Prerequisite-Corequisite Prerequisites: PHS 111 Earth Investigations; or PHS 114 Meteorology; or PHS 115 The Dynamic Earth; or PHS 116 Global Warming: Energy and the Environment; or CHM 126 Marine Chemistry: An Introduction to Chemical Oceanography Credits: 4 Hours 3 Class Hours, 3 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Explain the geologic history of the oceans.2. Describe the fundamental physical properties of seawater, and explain the temporal and spatial variation in these properties.3. Describe the major water currents and circulation of ocean waters with these currents.4. Explain the formation of waves and understand the differences between the major wave types.5. Explain why coastal waters are biological highly productive and diverse.6. Explain why the future productivity of such coastal water regions is uncertain.7. Explain how the ocean influences life on land and the role it plays in global climate.	0.00	4.00	202447
			PHY	105	Conceptual Physics	How does your cell phone work? How does the manipulation of light, sound, and motion help create more realistic animations or simulations? What did Einstein mean when he said the distinction between past, present, and future is only a persistent illusion? This course will give you the tools to answer these questions for yourself.?You know you can't enjoy a game unless you know its rules?Physics is about the rules of nature-so beautifully elegant that it can be neatly described mathematically. However, in this course we will treat physics conceptually- in down-to-earth English rather than in mathematical language." (from Conceptual Physics by Paul Hewitt) Credits: 4 Hours 3 Class Hours, 3 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Explain laws of physics and apply these principles to determine probable outcomes and explain discrepant events demonstrated or observed in the natural world.2. Discuss the historical origins and evolution of the laws of motion and energy including the work of Aristotle, Galileo, Newton, Joule, Franklin, Faraday, and Einstein.3. Demonstrate proportional reasoning by identifying and manipulating independent, dependent and controlled variables.4. Demonstrate porportional reasoning to the laws of motion, gravity, energy, wave motion, electromagentic fields, and light.5. Recognize violations of the conservation of energy.6. Apply major principles in the areas	0.00	4.00	261648

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				118	Physics for Physical Therapist	Course is designed to cover topics in physics specifically related to PTA students. The topics covered include: forces, torques, linear motion, energy, momentum, conservation laws; temperature and heat, temperature scales, heat transfer, changes of state; electric fields, potential difference; Ohm?s law, DC circuits, magnetic field, electromagnetic induction, motion of charges in magnetic fields; wave motion, electromagnetic spectrum, atomic structure.	0.00	4.00	148890
				160	Applied Physics IS	This is a one-semester course in physics with emphasis on hands-on activities completed by students working in teams. General topics to be discussed include mechanics, vibrations and wave motion, light and optics, electricity and magnetism, thermodynamics and modern physics. Class activities and laboratory experiences are integrated into the class discussions. Computers will be used extensively for data analysis and presentation. Oral and written reports are required.Note: This course may not be used as a substitute for PHY 161 or PHY 162.	4.00	4.00	148891
				161	Physics I Mechanics Heat	Physics includes the study of matter and motion, mass and energy. It tells you how and why things move. It is important for everyone from technicians to doctors to know why something happens. Problem solving skills that you learn in physics will help you in other courses, as will the skills in laboratory observation and analysis. In Mechanics you will learn about forces and the accelerations they produce, and conservation laws for energy and momentum. In thermodynamics you will study how heat energy affects the properties of matter. This includes topics that range from how atoms bounce around on a hot day to the operation of a gasoline engine. Physics provides the underlying concepts used in technologies and in other sciences. Basic principles are applied to solve realistic problems, using algebra and elementary trigonometry. This course is designed for Liberal Arts, Computer Science, and Technology students and others who are interested in learning why things happen the way they do. Laboratory experiences will provide you with problem solving techniques, measurement skills and applications of theory.	0.00	4.00	148892

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				162	Physics II Wave and Motion	This is the second course of an algebra-based sequence in physics. Your study of sound and light will reveal them as examples of waves, and will include study of optical instruments. Electricity and magnetism introduces you to the basic properties of charges and currents, producing electric fields and magnetic fields. You will progress to understand electric energy as one essential component of our standard of living. Some selected topics in modern physics are also covered, including the study of atoms and their nuclei. Laboratory experiences will provide you with problem solving techniques, measurement skills and applications of theory.	0.00	4.00	148893
				181	Physics for Engineers I	Engineering Physics, sometimes called "University Physics," uses calculus in the development of principles. The topics include the description of motion and the causes of motion, with the ideas of force, energy, power, and momentum; equilibrium and rotation; and heat and its effects. This course is designed for students studying engineering, computing, science, or mathematics. Laboratory experiences will provide you with problem solving techniques, measurement skills and applications of theory.	0.00	4.00	148894
				182	Physics for Engineers II	This continuation of PHY 181 covers the nature of sound and of light and their behavior; electric and magnetic forces and fields; electric circuits and electric energy transfer; and electromagnetic induction. This is the second semester of University Physics taught at most major Engineering schools. Laboratory experiences will provide you with problem solving techniques, measurement skills and applications of theory. Prerequisite- Corequisite Prerequisite: PHY 181 Physics for Engineers & Scientist I: Mechanics and ThermodynamicsCorequisite: MAT 182 Calculus II Credits: 4 Hours 3 Class Hours, 3 Laboratory Hours	0.00	4.00	148895
				281	Physics for Engineers III	This elective is the third and last physics course for Engineering and Science majors. It covers Einstein?s theory of relativity, quantum mechanics, atomic physics, and nuclear physics. Students majoring in Electrical Engineering, Nuclear Engineering, and Physics should consider taking this course.	4.00	4.00	148896
		Social Sciences	ANT	111	Cultural Anthropology	Introduction to the study of culture as the behavioral adaptation unique to human societies. Cultural characteristics shared by all humans and major variations found among specific groups. Explanations for rules of social interaction in common activities, the social functions of institutions, language is a culturally defined system of communication, modernization in our own and third world societies.	3.00	3.00	148014

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				114	Language/Culture/Communication	An introduction to the multifaceted meanings and uses of language in society. Basic discussion of issues in the evolution of language, language learning, language and cultural meaning and sociolinguistics. Relationships between language and class, race and gender.	3.00	3.00	148017
			BUS	116	International Business Environ	An overview of the social, cultural, political, and economic factors that influence the trade related interaction of nations and the operations of global business enterprises. Trade theory, economic integration, global sourcing, export-import basics, cultural awareness, and other current topics relating to international business will be covered.	3.00	3.00	148175
				215	Managing Diversity in Org.	An entry level course which explores the impact that a culturally diverse work force has on buinesses, industry and the global/international environment. The course illustrates the manager's role/responsibility in managing a culturally diverse work force and develops student awareness and an understanding of the role of culture, values, and social behavior in managing diverse groups in organizations. This course explains why diversity is vitally important for organizations and how it helps in recruiting, retaining, and effectively utilizing a diverse workforce. Legislation, litigation, and research topics will be covered providing a solid factual support basis for embracing diversity.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Have a positive attitude toward valuing differences in the workplace.2. Have a positive attitude towards embracing diversity and inclusion.3. Be aware and understand the role of how culture, values, social behavior and politics impacts the management of diverse groups of employees.4. Understand how assumptions, stereotypes and myths can create barriers and roadblocks to managing diversity effectively.5. Value diversity and the benefits that follow from such a policy.	3.00	3.00	322555
			CRJ	245	Criminology (WE)	A study of the general field of criminology considering the general theories of crime causation and the impact crime has on society. Policy implications related to prevention, treatment of victims, and legal intervention are reviewed.	3.00	3.00	148329
			ECO	105	Intro to Economic Thought	This course will introduce students to the basic ideas of economics through a study of the ideas of the great economists. The course will introduce students to the problem of "scarcity", and to the interpretation of economic theory. The origins of economic thought, the ideas of the major economists, and the current state of economic theory in relation to contemporary economic issues will be studied. Credits: 3 Hours 3 Class Hours	3.00	3.00	202444

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				110	Microeconomics (WE)	An introduction to key economic concepts which relate to the market mechanism, supply and demand, the allocation of scarce resources, consumer behavior and the behavior of firms. We all live in a world where choices are made and those choices always involve economic costs and consequences.	3.00	3.00	148425
				111	Macroeconomics	Causes of unemployment and inflation and the government's efforts to control them. Problems of economic growth as they relate to our economy and the other countries, developed and underdeveloped. International trade and finance problems.Credits: 3Hours3 Class HoursNoteSatisfies the Civic Education requirementsCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Demonstrate an understanding of and apply an economic perspective.2. Identify causes of fluctuations in economic activities.3. Identify phases of the business cycle in the macroeconomy.4. Interpret macroeconomic aggregate variables.5. Describe the application of governmental stabilization policies.	3.00	3.00	148426
			GEO	120	World Cultural Geography	Description and analysis of human or cultural use of physical space, economics, religious, linguistic, and political phenomena in major world areas. A regional approach is used to highlight the phenomena.	3.00	3.00	148516
			POS	201	Intro to American Government	American political institutions, processes and behavior. The relationships among cultural, legal and social aspects of the political system. Structure, organization and function of political parties, pressure groups and mass media. Application to contemporary issues and events. Satisfies the civic education requirement.	3.00	3.00	148908
				203	International Relations	An examination of basic concepts and principles of world politics: international conflict resolution, international organizations, and the struggle for power. Factors affecting the relationships among the major powers. The role of diplomacy, alliances, war and peace in the world arena.	3.00	3.00	148909
				204	American State Local Govt	Theory and practice of state and local government, utilizing a problem solving or "policy" approach. Students are encouraged to explore in depth the workings of city and county governments locally. Satisfies the civic education requirement.	3.00	3.00	148910

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				205	Women and Politics	This course will focus on the role of women in politics. We will start by reviewing the women's suffrage movement in the U.S. and abroad, then examine how far women have come today. Interspersed with our historical examination, we will review the women themselves that have contributed to the progress of the women's movement as well as look at current women contributing to the movement today. We will also consider questions such as: Does gender matter in politics? Is there a bias against women? Do women politicians have different issue priorities than their male counterparts? What is the gender gap? We will use social science methodology to hypothesize, observe, measure, and assess the roles of women in politics and the impact of the political process on women.Credits: 3Hours3 Class Hours	3.00	3.00	330070
			PSY	110	General Psychology	Survey of the field of psychology. Major principles, theories, and methods, and their application to the study of human behavior. Topics include the history and fields of psychology, the scientific method and statistical applications, the neural system, sensation and perception, consciousness, learning and memory, intelligence and cognition, maturation, emotion, personality and social influences.	3.00	3.00	148913
				210	Human Development (WE)	Human development from conception through adulthood to the end of life. Considers physical, intellectual, emotional, and social maturation and typical problems in various stages of the life cycle. Especially designed for Health Sciences, Education and Psychology majors.	3.00	3.00	148914
				211	Child Development (WE)	An overview of the growth and development of the child from conception to adolescence including cognitive, physical, social and psychological changes. Major theories and research related to child development.	3.00	3.00	148915
				212	Adolescent Development (WE)	Study of adolescent development and the complex nature of adolescent thought, behavior, and relationships. Focus is on physical, cognitive, social, psychological, and moral development.	3.00	3.00	148916
				214	Abnormal Psychology	Overview of the history of psychopathology, major psychological disorders, theoretical perspectives to understanding abnormality and approaches to treatment and therapy.	3.00	3.00	148917
				217	Intro to Counseling Theory	Theoretical foundations and techniques associated with a variety of individual counseling approaches including psychoanalystic, humanistic, existential, cognitive - behavioral, feminist, and integrative. Basic counseling skills are introduced and practiced.	3.00	3.00	148918

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				223	Human Exceptionality Assmt(WE)	PSY 223 is a survey of human exceptionality: attention will be focused on the problems, etiologies (causes), and expectancies of exceptional people in their communities, at school, and at home. Topics include persons with learning disabilities, attention-deficit/hyperactivity disorders, emotional disabilities, mental retardation, autism, and people who are gifted, talented, and creative. Special consideration is given to intelligence testing and the placement of atypical learners in special education and inclusive school settings.	3.00	3.00	148919
				227	Learning and Behavior	Exploration of the basic principles of conditioning and learning. Emphasis on clinical and operant conditioning and their place in the larger theoretical framework of behavioral psychology. Application of these principles to understanding and changing individual and group behavior.	3.00	3.00	148920
				230	Psychology of Women	Introduction to the scientific study of female behavior. Exposure to and evaluation of psychological theories used to explain the female experience. Major women theorists in the field of psychology, their perspectives and contributions.	3.00	3.00	148921
				240	Psychology of Advertising	Emphasizes the psychological dimensions of advertising as a basis for attracting and retaining consumer awareness of products, companies, and services. Learning, drive and motivation, and communication theories, as they pertain to the diffusion of media advertising messages, are examined and analyzed using television, radio, print, and Internet media.	3.00	3.00	148923
				245	Social Psychology (WE)	Scientific study of social influences on human behavior. Topics include social influence, attitudes, group behavior, social perception, social cognition, aggression, and interpersonal attraction.	3.00	3.00	148924
				250	Educational Psychology (WE)	Application of psychological theory and research to education including behavioral, cognitive, and social approaches to teaching and learning in schools and other educational settings.	3.00	3.00	148925

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				255	Forensic Psychology	The primary goal of this course is to investigate the psychological disorders present in both perpetrators and victims of crime as these disorders apply to the various aspects of the United States criminal justice system. Psychological underpinnings of crimes such as stalking, child abuse, murder, and sexual deviance are explored. The course also provides an overview of the role psychologists play in criminal investigations, including profiling, risk assessment, crime scene analysis, and therapeutic interventions. Prerequisite-Corequisite Prerequisite: PSY 110 General Psychology Credits: 3 Hours 3 Class Hours Course Profile Objectives of the Course:1. This course is designed to familiarize students with the symptoms of clinical syndromes and the application of diagnostics to forensic populaltions.2. Students will be exposed to the aspects of forensic psychology as a career.3. This course is intended to develop student research and writing skills in the expected professional writing format for social and behavioral sciences and criminal justice (APA).Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Recognize, relect on, and articulate (both orally and in writing) the scope of the field of forensic psychology including main terminology.2. Summarize major topics, theories, research and concepts in the discipline and explain the interaction between the fields of Criminal Justice and Psychology.3. Apply the principles learned	3.00	3.00	181483
			SOC	110	Introduction to Sociology	Students will focus on developing their sociological imagination through the scientific study of society and the human behavior that occurs as a result of social conditions. To accomplish this task, the three major sociological approaches, research methodology, culture, socialization, social interaction in groups and organizations, deviance, social stratification, the social institutions, and social change constitute the major topics of study. This course satisfies the civic education requirement.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Analyze the meaning and relevance of developing a "sociological imagination."2. Identify major contributions of the early classical social theorists.3. Explain the three major theoretical approaches used by sociologists.4. Discuss the four major research methods used by sociologists, the difference between qualitative and quantitative research methods and the importance of science to the discipline of sociology.5. Identify the four levels of measurement, measures of central tendency, variance, standard deviation and the difference between descriptive and inferential statistics.6. Describe at least two major functions of each major social institution.7. Identify the sociological meaning of culture, socialization, social interaction, groups, organizations, deviance, social stratification, social institution, and social change.	3.00	3.00	148988

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				111	Social Problems	This course presents a sociological study of social issues with a particular focus on those social issues that have been defined within U.S. society as social problems. Topics presented for discussion and critical analysis include: sociological theory, research methodology, social inequality, deviance, sexuality, physical and mental health, urbanization, globalization, war/terrorism and the environment. Additional topics may be included as social problems are continually defined within U.S. society. This course satisfies the civic education requirement.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Describe the difference between a social issue and a social problem as it is defined in the U.S.2. Discuss the reasons for variations in the definition and recognition of social problems over time and within industrialized societies.3. Identify the major research methodologies used by sociologists to collect data.4. Analyze the major sociological causes underlying social problems.5. Identify possible sociological solutions that may alleviate some aspects of social problems.6. Analyze public policies that foster the continuance of some major social problems from the sociological perspective.	3.00	3.00	148989
				220	Race and Ethnicity	The purpose of this course is to provide the student with an introduction to the sociological study of race and ethnicity in the United States and the intergroup relationships that emerge. The development of intergroup hostility, acculturation, assimilation, and pluralism are considered. Specifically, the course emphasizes understanding the social, demographic, economic, political, and historical forces that have resulted in the unique experiences of different racial and ethnic groups. (This course will satisfy the social science elective requirement).Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Explain the concepts of race and ethnicity as socio-historical constructs.2. Evaluate the socio-cultural concepts of race and ethnicity using the sociological perspective.3. Describe the concepts of intergroup hostility, acculturation, assimilation, and pluralism based on the sociological perspective.4. Apply sociological theories to explain the historical forces that have resulted in the unique experiences of racial/ethnic groups in the United States.5. Explain the impact of socio-demographic forces among and between racial/ethnic groups in the United States.6. Analyze the socio-economic forces that have and continue to shape the social lives of racial/ethnic groups in the United States.7. Analyze the socio-political forces that have and continue to shape the social lives of racial/ethnic groups	3.00	3.00	148990

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				250	Introduction to Social Work	Exploration of the field of social work. Introduces philosophical frameworks for the profession and examines the social welfare system. A systems approach to social issues and functions will be emphasized to provide balance between policy and practice.	3.00	3.00	148992
			SOS	101	Contemporary World Issues	An introduction to the ideas, methods, and materials (print, visual, and electronic) used in various social science fields, including history, political science, sociology, economics, anthropology, and geography. Topics will cover selected modern global issues such as that will change each semester, but which will focus on underlying issues of globalism, pluralism, democratic aspirations, and equity. Additional topics may cover issues in population, human rights, natural resources, development, conflict resolution, and cooperation. Intended for beginning liberal arts students who will take social science courses In the future. Daily newspaper reading is a core activity.	3.00	3.00	148994
				111	Public Policy	This course offers students an analytical survey of policy formulation and implementation in the United States, together with an examination of the impact of policy upon individuals and groups in American society. Topics covered will include: policy making processes, policy analysis, federal and state policies, rationality and irrationality in public policy, incrementalism, special interests, public choice, and institutional influences. This course satisfies the civic education requirement.Credits: 3Cross-listedPOS 111Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Define some of the major concepts in the study of public policy.2. Describe the context within which policy decisions are made, including institutional, economic, cultural, and so on.3. Apply their general knowledge of public policy to the analysis so specific policy issues such as economic, environmental, educational, and foreign policy issues.4. Evaluate arguments for various policy options.5. Assess public policy as an approach to dealing with public issues.	3.00	3.00	148996
				116	INTERNATIONAL BUSINESS ENVIRONMENT		3.00	3.00	50095
					International Business Environ	An overview of the social, cultural, political, and economic factors that influence the trade related interaction of nations and the operations of global business enterprises. Trade theory, economic integration, global sourcing, export-import basics, cultural awareness, and other current topics relating to international business will be covered.	3.00	3.00	148997

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				120	Science/Tech/ Democ Society	A study of the interaction of the forces of science and technology with the major institutions (I.e., govt., industry, family, education, and organized religion) of contemporary democratic society. Analysis of differing viewpoints on the role of a scientific technology with respect to key public policy issues (I.e., genetic engineering, fetal tissue research, pollution, space exploration, information management, weapons development, evolution/creationism debate, communications, etc.). Satisfies the Civic Education requirement.	3.00	3.00	148998
				155	Media and Society (WE)	An in-depth examination and analysis of the impact and effects of the mass media upon society an the converse societal influences upon the media Includes such issues as media concentration, portrayal of violence, stereotyping, the public's right to know, among others.	3.00	3.00	149000
				186	Food in History & Society (WE)	This course will explore the history of food as a means of introducing students to basic concepts in food studies. Through historical examples, general themes will be developed, including the historical evolution of food systems, the development of regional and national cuisines, the relation of food to society and culture (including religion, ethnicity, and gender), and the globalization of foods and cuisines.Credits: 3Cross-listedHOS 186Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Identify some of the basic concepts in food studies.2. Describe the fundamental features of the foraging, agricultural, and industrial food systems.3. Analyze historical examples which illustrate the relation of food to society and culture.4. Describe the historical development of some regional and national cuisines.5. Identify some of the main issues in the globalization of foods and cuisines.	3.00	3.00	281356
		American History - Category I	HIS	130	United States History I	The United States from 1607 to 1877. The colonies, Revolution, Constitution, early national period, Jacksonian era, expansion, Civil War and Reconstruction, and Westward Movement. Survey of political, economic, social and cultural developments through most of the 19th century. Satisfies the civic education requirement.	3.00	3.00	148530
				131	United States History II	The United States from 1877 to the present. The closing of The Frontier, the American Empire, Progressive reforms, World War I, the Twenties, the Depression, The New Deal, World War II, the Cold War, the Civil Rights Movement, the Vietnam involvement, and the present. Emphasis on political, cultural, social, and economic & developments. Satisfies the Civic Education requirement.	3.00	3.00	148531

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				194	Affrican American History	An introduction of African American history from the colonial period to the present. Topics to be discussed include West Africa and the slave trade; slaves and free blacks in the colonial and revolutionary periods; slavery, abolitionist movements, and African Amercian life in the antebellum years; the Civil War and emancipation; Reconstruction and the Jim Crow erea; the development of African American thought and culture; the Civil Rights era; and recent developments. This course will meet the SUNY General Education US History requirement for all students, and it also meets the Civic Education requirement.Credits: 3Hours 3 Class Hours	3.00	3.00	148544
		American History - Category II	HIS	175	Local History	This introductory study encompasses the history of Broome County and, where relevant, the larger upstate New York area. Areas of exploration include: early presence of the First Peoples (Native Americans) from the early woodlands period to the Iroquois Confederacy, late 18th and 19th century Anglo settlement with cultural, religious, and land use perspectives, canal, railroad, industrial and factory growth fueled by rural migrants and European immigrant groups, as well as recent changes in County growth and demographics. Historical methods of research will be used, along with actual exploration of historical aspects of the County, for instance, the homes of Riverside Drive or the Chenango Canal. We will utilize the archival and historical records on the premises of cooperative local institutions. Meets SUNY General Education requirement for US History for students scoring 85 and above on US history regents.	3.00	3.00	148538
				183	Women in American History	An introduction to women's history in America. The course will discuss women's roles from the pre-colonial period to the present, including social, economic, political, and cultural aspects of women's lives. This course will meet the SUNY General Education US history requirement for students who scored 85 or above on the US History and Government Regents Examination.Credits: 3Hours 3 Class Hours	3.00	3.00	148540
				187	US Civil War: Causes/Effects	A study of American institutions within the time-frame of 1815-1877; examination and analysis of Antebellum politics, society, and culture; origin and nature of the American Civil War and the social, economic and political changes brought about by the War and Reconstruction. Approval for SUNY General Education requirement for US History pending.	3.00	3.00	148541
				188	Vietnam and America	A course on the Vietnam War and American society. Background: modern Vietnam, war and American culture, the Cold War. The War: military and political aspects, the soldier's experience. The homefront: social developments, the media, the anti-war movement. The legacy of the war. Meets SUNY General Education requirement for US History for students scoring 85 and above on US history regents.	3.00	3.00	148542

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				189	1st Peoples: Nat American Hist	An introduction to the history of Native North Americans from their earliest history to the present day. From New England to the Southwest, various Indian cultures will be examined by region and time period. Early creation beliefs, religious, social, and political practices, peace and conflict, family life, environmental adaptations, frontiers and borderlands, and archaeological and artistic survivals will be covered. Emphasis will be on the period since Europeans arrived in the present-day United States. Particular interest will be given our local Haudenosaunee (Iroquois), and their contacts with French and English colonists. Modern day legal and geographical conflicts will be reviewed. Approval for SUNY General Education requirement for US History pending.	3.00	3.00	148543
		Western Civilization	HIS	100	The Rise of the West: 1500-Pre	Introduction to both the study of history and the evolution of modern society, including its basic ideas, values and institutions, through an examination of Western Civilization. The Age of Transition - the Renaissance, the Reformation, the Scientific Revolution, and the Enlightenment. The Industrial Transformation, appearance of modern constitutional and authoritarian government, major socio-political ideologies-liberalism, socialism, communism, nationalism, imperialism, fascism, totalitarianism. The intellectual crisis of the 20th Century, World Wars I and II; the Rise and Fall of the Cold War.	3.00	3.00	148526
				103	Western Civilization I	A survey of Western Civilization from its beginnings to the 18th century. This course fulfills the SUNY Western Civilization requirement.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Distinguish primary and secondary sources in history.2. Read primary sources in history and formulate pertinent inferences and interpretations.3. Identify some of the methods used by historians and social scientists to study the past.4. Identify the major civilizations of the ancient Near East and describe their influence on Western Civilization.5. Identify the main periods and themes in the history of Ancient Greece.6. Identify the main periods and themes in the history of Ancient Rome.7. Describe the major transformation in late antiquity.8. Identify the major influences of Byzantine Civilization on Western Civilization.9. Identify the major influences of Islamic Civilization on Western Civilization.10. Describe the major social, political, and cultural developments of the High Middle Ages.11. Describe the crisis of the late Middle Ages and the origins and early history of the Renaissance.12. Identify and describe the main political, economic, social, cultural, and religious conditions of early modern Europe.	3.00	3.00	202445

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				104	Western Civilization II	A survey of Western Civilization from the 18th century to the present. This course is equivalent to HIS 100 The Rise of the West, which is no longer offered. This course fulfills the SUNY Western Civilization requirement.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Distinguish primary and secondary sources in history.2. Read primary sources in history and formulate pertinent inferences and interpretations.3. Identify some of the methods used by historians and social scientists to study the past.4. Identify and describe the main political, economic, social, cultural, and religiou conditions fo lat medieval and early modern Europe (1450-1789).5. Identify and explain the increasing conflicts between a traditional aristocratic society and emerging "modern" movements in the economic, political, social, cultural, and religious arenas.6. Describe the industrial transformation and evaluate its consequences.7. Identify and describe the movements of the 19th century age of "isms," including imperialism, and evaluate their impact on European and non-European societies.8. Explain why World War I was the product of mounting tensions within an increasingly "modern" European nation-state system.9. Explain and assess how WW II grew out of a failed European peace and a series of interwar crises.10. Explain and evaluate the impact of communism and	3.00	3.00	305535
				155	War and the Western World	A survey course from 1500 to the present examining the interaction of Western Civilization and warfare. Major emphasis will be on how warfare/military developments helped to shape Western Civilization as well as a distinctive Western style of warfare. Specific concern will be given to the role of gunpowder, industrialization, nationalism, as well as economic, social, and cultural factors. Exploration of how the West used its distinctive style of warfare to dominate the rest of the world and to spread Western influence and institutions will also be considered.	3.00	3.00	148534
				156	Nature & Western Civilization	An historical overview of human interaction with the natural system in the Western World; an examination of the western ideologies justifying the exploitation of nature; an examination of the present state of the global energy system; a critical reexamination of various solutions for ecological problems.	3.00	3.00	148535
			HUM	101	Western Humanities I	Critical analysis of western culture through a thematic investigation of literature, philosophy, music, and the arts as found in the ancient Near East, classical Greece and Rome, and Medieval Europe.	3.00	3.00	148580
				102	Western Humanities II	Critical analysis of western culture through a thematic investigation of literature, philosophy, music and the arts as found in the Renaissance, early modern and 19th-20th centuries Europe.	3.00	3.00	148581

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
		Other World Civilizations	HIS	116	World History I	A survey of the histories of human societies from the beginnings to the 16th century. This course was formerly titled The West and the World to 1500. It fulfills only the SUNY World History requirement; students who took HIS 116 before the fall 2015 semester should consult with their advisor.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Distinguish primary and secondary sources in history.2. Read primary sources in history and formulate pertinent inferences and interpretations.3. Identify some of the methods used by historians and social scientists to study the past.4. Identify some of the main features of human prehistory.5. Distinguish the general characteristics of civilizations.6. Identify the primary civilizations of the Old and New Worlds.7. Identify some of the main features of some of the major religious and cultural traditions of Asia, Africa, and Europe to circa 1500 CE.8. Explain the rise of the state and the development of distinct social groups and gender roles.9. Locate the major trade routes of the Old World before 1500 CE.10. Describe the general conditions that existed in the Old and New Worlds on the eve of modernity, circa 1500 CE.	3.00	3.00	148528
				117	World History II	A survey of the histories of human societies around the world from the 16th century to the present. This course was formerly titled The West and the World since 1500. It fulfills only the SUNY World History requirement; students who took HIS 117 before the fall 2015 semester should consult with their advisor.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Distinguish primary and secondary sources in history.2. Read primary sources in history and formulate pertinent inferences and interpretations.3. Identify some of the methods used by historians and social scientists to study the past.4. Describe the general conditions that existed in the Old and New Worlds on the eve of modernity, circa 1500 CE.5. Identify the major changes in Europe and its relations with the rest of the world in the period 1500-1800.6. Describe some of the major developments in Asia, Africa, and the Americas in the period 1500-1800.7. Explain the origins and consequences of the Industrial Revolution.8. Identify the major political developments of the period 1800-1914.9. Describe the general crisis of the first half of the twentieth century and identify its global consequences.10. Identify some of the main themes in global history since 1950.	3.00	3.00	148529

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				141	History of Mod Lat Am and Carb	History of Latin America and the Caribbean from independence to the present, emphasizing distinctive cultures, power relations between indigenous peoples and elites, the causes of political instability and economic backwardness. Close analyses of reform, reactionary, and revolutionary movements in the hemisphere and inter-American affairs.	3.00	3.00	148533
				163	Intro to Chinese Civilization	Survey of Chinese history and introduction to Chinese culture. Origins of Chinese civilization. Development of Chinese culture and religion in early Chinese history. Unification of China under the Qin and Han dynasties. Imperial China: institutions, social life, and culture. Relations between imperial China and other societies. Crisis of late Qing China. Chinese revolution, 1911-1949. China under Mao. Recent developments.	3.00	3.00	148536
				164	Intro to Japanese Civilization	Survey of Japanese history and introduction to Japanese culture. Origins of Japanese civilization. Chinese and Korean influences in early Japan. Classical Japan (Nara and Heian periods): institutions, social life, culture. Medieval Japan: rise of the Bushi, new forms of Buddhism, social and cultural developments. Early modern Japan: wars of unification, Tokugawa period. Meiji Restoration and its consequences. The modernization of Japan: industrialization, imperialism, cultural changes, the Pacific War. Japan since 1945.	3.00	3.00	148537
		Humanities	ART	102	History of Western Art I (WE)	An overview of Western Art and Architecture from the 25,000 B.C.E. to about 1350 C.E. Study of objects, sculptures, paintings, ceramics, and architecture with a focus on the social, religious, political, and philosophical influences that affected cultural development in the Ancient World. Slide lecture format.	3.00	3.00	148021
				103	History of Western Art II (WE)	Survey of the visual arts in Western culture from the early Renaissance until today, revealing the ways that the world and the thoughts of men and women have changed during this period, and how evolving ideas are reflected in works of art. Slide lecture format.	3.00	3.00	148022
				104	History of Asian Art	History of Asian Art is appropriate for all students who are interested in the cultural traditions and artistic expressions of Asian countries. This course presents a general survey of the development of Asian Art and Architectural forms in the Far East including India, Japan and China with supplementary study of Korea, Tibet, Indonesia, Burma and Thailand. Cultural traditions, especially Buddhism introduced. Prior experience in art history is not necessary. The format involves slide lecture, readings and class discussion.	3.00	3.00	148023
				108	History of Architecture I	Overview of 40 centuries of building, beginning in Ancient Egypt. The student follows the political technological, religious and social movements that have influenced the major design styles, outstanding architects, and designer of each era through the Gothic period.	3.00	3.00	148027

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				109	History of Architecture II	Overview of the history of buildings from the Early Renaissance to the present. Students achieve an historical perspective on and understanding of the development and evolution of architectural design.	3.00	3.00	148028
				110	Modern Art	Art of the late 19th century. Impressionism (circa 1870) to Cubism and other forms of abstract art Panorama of 20th century visual movements including Futurism, Surrealism, Abstract Expressionism Pop Art, and Post-Modernism. Slide/lecture format and field trips.	3.00	3.00	148029
				146	History of Photography	This course is designed to give students a strong background in the historic, aesthetic, and cultural background of photography as both a significant art form and important cultural and communications medium. The course content includes topics dealing with the invention of photography, photography as art in the 19th century, great photographers, and new photography.	3.00	3.00	148041
			COM	145	Contemporary Film Analysis	Topics covered within the class are cinematography, narrative vs. non-narrative structure, symbolism, genre, realism vs. expressionism, composition, and editing style. Course work consists of analysis of contemporary issues through screening and discussion of film/cinema work from numerous historical periods.	3.00	3.00	148291
				200	Image Theory Film Photo TV(WE)	This course offers the student a chance to study many of the important theories behind image production and its effectiveness. The class will survey the work of several significant photographers, filmmakers, and television artists. There is an emphasis on the formal elements of the still and moving images and their psychological and aesthetic effects. Students will have the chance to discuss the history and development of visual image production spanning from the pre-technological era to the present, with a view toward understanding the universal nature of the need for visual and conceptual expression among all mediums.	3.00	3.00	148294
			ENG	220	Communicating Abt Ideas Values	Critical analysis of issues and moral problems affecting all thinking adults. Selected readings organized around broad themes. Required writing assignments and oral communication. Required of most degree students.	3.00	3.00	148485
			HUM	101	Western Humanities I	Critical analysis of western culture through a thematic investigation of literature, philosophy, music, and the arts as found in the ancient Near East, classical Greece and Rome, and Medieval Europe.	3.00	3.00	148580
				102	Western Humanities II	Critical analysis of western culture through a thematic investigation of literature, philosophy, music and the arts as found in the Renaissance, early modern and 19th-20th centuries Europe.	3.00	3.00	148581

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				103	The Shock of the News: 20th Ce	A course on the humanities in the twentieth century. The nineteenth-century background. Developments in modern thought. Modernism in music, the visual arts, and literature, 1880-1940. Major cultural movements (expressionism, surrealism, etc.). High modernism, 1940-1975. New directions in culture (International Style, theatre of the absurd, etc.). Late twentieth century developments, 1975-2000. Recent trends in art, music, and literature (magic realism, the new classicism, etc.).	3.00	3.00	148582
				104	Intro to Classical Mythology	Introduction to Classical Mythology, is designed to introduce the basic substance of the stories which constitute classical Greek mythololgy. The course is also meant to provide experience in reading and understanding those stories in their original context-so far as that can be determined-so as to discern how they have continued to influence western art and culture, and express its values. Part of appreciating that influence will rely on introducing as well key traditional interpretative methods and applying them to the mythology.	3.00	3.00	148583
				135	Jazz in US History	This is a course on the evolution of jazz in the context of American history. The course explores how events and trends in American history have created and influenced the development of jazz and its evolution within american culture. The development of jazz from its African roots, through the creation of African American musical forms in the nineteenth century, to the present day will be examined. Various styles and personalities in jazz history will be studied.	3.00	3.00	148584
			LIT	200	Introduction to Literature(WE)	An overview of the major literary genres and approaches to interpretation. Students will practice the process of literary analysis in oral and written forms.	3.00	3.00	148615
				201	Crime and Punishment	This course focuses upon works of literature which incorporate the theme of punishment and justice. An additional theme of resistance to punishment will also be represented in course readings and lecture-discussions.	3.00	3.00	148616
				210	Studies in US Lit I (WE)	A study of United States literature from Pre-Colonial times through the 19th century, exploring recur-rent themes and motifs in the works of both newly discovered and long-recognized authors. Emphasis on engaging student curiosity, eliciting student response, and fostering student development of critical analysis and interpretation through close reading of texts, class discussion, and formal and informal writing assignments.	3.00	3.00	148617

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				211	Studies in US Lit II (WE)	A study of United States literature from the late 19th century to the present, exploring recurrent themes and motifs in the works of both newly discovered and long-recognized authors. Emphasis on engaging student curiosity, eliciting student response, and fostering student development of critical analysis and interpretation through close reading of texts, class discussion, and formal and informal writing assignments.	3.00	3.00	148618
				214	Studies in British Lit I (WE)	History and development of British literature from the Middle Ages to the 18th century. Selections of literary merit from prose, drama, poetry.	3.00	3.00	148619
				215	Studies in British Lit II (WE)	History and development of British literature from the beginning of the 18th century to the middle of the 20th. Selections of literary merit from prose, poetry, drama.	3.00	3.00	148620
				220	The Short Story (WE)	Close reading and analysis of stories produced in different times and places. Attention to the relationships among author, text, reader, and context in the making of meaning.	3.00	3.00	148621
				225	US Latino Literature	A literary overview of contemporary United States Latino/Latina literature. The course will focus on short stories, essays, poems, and films produced by this influential, fastest-growing cultural group. Works will explore themes of gender, sexuality, class, race, and color within the context of the cross-cultural American experience.	3.00	3.00	148622
				230	American Drama (WE)	A survey of American drama. Examination of dramatic theories and techniques, and consideration of historic and thematic problems in American drama.	3.00	3.00	148623
				233	World Drama (WE)	A survey of world drama produced in both Western and non-Western cultures. Examination of dramatic theories and techniques, and consideration of dramatic themes common to diverse cultures.	3.00	3.00	148624
				235	Shakespeare (WE)	Shakespeare as both dramatist and poet. Emphasis on selected comedies, histories and tragedies. Consideration of the playwright?s life and times.	3.00	3.00	148625
				240	The Poetic Exp Sight and Sound	This course exposes students to poetry from different countries and cultures, to important aspects of poetic language, and to diverse poetic forms. Students will read, discuss, and write about poetry, and strive to understand what poetry portrays of human experience. Students will also write poems about their own experience. In doing so, students will learn how poems are built or structured.	3.00	3.00	148626
				250	Women, Lit Other Perspect (WE)	Critical analysis and evaluation of literary works by and about women produced in diverse socio-political contexts. Emphasis upon the relationship between the text and its cultural setting and upon other, nontraditional critical perspectives, including feminist perspectives.	3.00	3.00	148627

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				253	Psych Investigation in Lit(WE)	The application of Jungian, Freudian, and other psychological theories and insights to selected short stories, novels, and poems to promote more penetrating appreciation of characters? motivations and actions and the literary work in general.	3.00	3.00	148628
				260	Detective Fiction (WE)	A critical study of one of the most popular literary forms of our time, designed for armchair detectives. Starting with Poe, Conan Doyle (Sherlock Holmes), and other classics in the field, the course traces the development of the detective story from its puzzle-solving beginnings to the modern psychological novel of crime and detection.	3.00	3.00	148629
				263	Children's Literature (WE)	Close reading and analysis of a diverse selection of literature written for children including short fiction, novel, and poetry. Emphasis on the use of critical theories in investigating diverse interpretations of the texts and in exploring revelatory connections between the literature and contemporary human experience.	3.00	3.00	148630
				264	World Folktales Storytelling	Reading, analyzing, discussing, adapting, and retelling selected multicultural folktales transcribed from the oral tradition. Emphasis on the importance of motifs, narrative structure, recurring global themes, cultural and ethnic specificity, as well as the morphology of the tales. Identification of cross-cultural story techniques will build the story repertoire; diverse oral performance techniques will enhance motif and character analysis.	3.00	3.00	148631
				270	20th Working Class Lit of NA	An examination of literature in which 20th century North American working-class writers explore working-class life. Emphasis upon the investigation of broad themes, such as the role of work in the shaping of values and identity and the impact of work upon human relationships. Multi-ethnic and multi-racial perspectives; issues of gender and sexuality. Attention given to the sociocontexts in which works were produced.	3.00	3.00	148633
				272	Lit of the No American Wild	This course aims to involve the student in the thinking of seminal writers who struggled to define human beings? relationship to the natural world. The approach is both literary and historical. It is historical in that it begins with the overwhelming effect that the fecundity of the new world had on writers and ends with the effect that profound environmental problems area having on thinkers who use the techniques and form of expression usually identified with writers of creative and imaginary literature. Students will read essays, fiction, and poetry. Some videos and media presentations will be viewed.	3.00	3.00	148634

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				274	Intro to African Amer Lit (WE)	This survey course will introduce students to African American literature from Colonial America to the present. Various genres, representative works, and major writers will be examined in terms of development, theme, structure, and context. This will be a study of African American literature as both artistic and cultural expression.	3.00	3.00	148635
				276	Native American Literature	A survey of the literature of selected Native American tribes in distinct geographical areas of what is now known as the United States (focusing on the Northeast, Southeast, Plains, and Southwest). Critica reading of traditional and contemporary works, with emphasis upon translated myths, legends, and songs handed down through the oral tradition. An examination of how Native American oral tradition, myth, and genre challenge "Western" notions of literature. Investigation of the texts as both artistic and cultural expression.	3.00	3.00	148636
				277	Intro to Irish Literature	A survey of Irish literature in several genres-novels short stories, poetry, drama, essays, and criticism- from the nineteenth century to the present. Students will read and critically analyze the work of major figures, such as Maria Edgeworth, W.B. Yeats, James Joyce, and Seamus Heaney, and of figures who are less well-known. Close attention will be paid to the ways in which Irish literary works respond to the pressures of Irish history and culture. A research paper is required.	3.00	3.00	148637
				280	The Short Novel	An introductory course on the novel, focusing on shorter exemplars of the genre written in English since 1850. Emphasis on narrative technique, religious and philosophical ideology, as well as socio-psychological themes. Students will demonstrate achievement through various writing and speaking activities and assignments.	3.00	3.00	148638
				285	Autobiography (WE)	An examination of a variety of autobiographies from various times, cultures, and backgrounds Emphasis on detailed literary analysis of style, content, and context. Students will be expected to engage in memoir writing and other various personal writing exercises to better appreciate and critique the auto-biographical experience.	3.00	3.00	148639
				290	Banned Books (WE)	This course will survey literary works from several genres, including drama, novels, poems, and stories that have been censored or banned at one time and may still be prohibited in some places. The titles will be chosen for their importance to the study and interpretation of literature and to censorship history. Emphasis will be placed on close reading of the texts and on research into the artistic, political, and social reasons for their censorship. Some of the reading material will come from free Internet sources such as The Gutenberg Project and Banned Books Online.	3.00	3.00	148640

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				291	ST Folklore and Fantasy(WE)	This course will examine the roots and flowering of the modern genre of fantasy. Beginning with myth such as that found in Genesis and The Odyssey and fairytales such as "Beauty and the Beast," proceeding through the great heroic tale tradition of Beowulf and King Arthur, we will arrive at the great fantasy works of the last hundred years. We will use literary critical analysis to form a definition of fantasy that we can use as a touchstone with which to examine hybrids such as the Star Wars Epic and works yet to come.	3.00	3.00	148641
				294	Nature Literature (WE)	Envirolit (Literature of the Environment) is a literary and visual journey into writings and viewpoints about nature, in addition to other explorations that trace the environmental movement. In this Writing Emphasis course, students will respond to essays, short stories, poems, movies, and books as the usual method of learning, but guest speakers, field trips, research, and individual Service Learning options will also provide educational opportunities.Prerequisite- CorequisitePrerequisite: ENG 110 College Writing ICredits: 3Hours3 Class hoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Have improved their ability at oral discourse by discussing and explaining their interpretive responses.2. Have improved their ability to write analytically and argumentatively by composing applications of critical methods to literary works.3. Identify literary devices and define them.4. Use specific details to support a claim about a text.5. Express their interpretation of a work in clear expository prose.6. Utilize various literary analysis approaches toward literature.7. Express multiple viewpoints about the life questions dealt with in literature (even if they disagree with those viewpoints).8. Relate one literary work to another, and also to the culture from which it emerged.9. Learn and demonstrate competence in basic principles and techniques of literary research, using print as well as electronic	3.00	3.00	148643
				295	Literature and Film (WE)	Introduces students to literary and cultural inquiry through exploration of the compositional and aesthetic relationships between fiction and film. Analysis of various literary texts (predominantly, novels) as well as films based on those texts will lead to significant discoveries concerning fundamental differences between the two genre and-perhaps, most importantly-the transactional dynamics that exist between audience and image, reader and word.	3.00	3.00	148644
				297	World Literature I	A multi-genre course surveying world literature from approximately 1300 B.C. to the 1500 A.D.. The course has a strong humanities component and is designed to engage students in the lives and histories of the people and cultures who created and enjoyed these poems, stories, and plays.	3.00	3.00	148646

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				298	World Literature II (WE)	A multi-genre course surveying world literature from approximately 1600 A.D. into the 20th century. The course has a strong humanities component and is designed to engage students in the lives and histories of the people who wrote these poems, stories, and plays as well as those who read, witnessed, and enjoyed them.	3.00	3.00	148647
			MUS	101	Introduction to Music	A survey course examining the music of the great composers representing each major period of Music History. How to listen to different forms of music such as symphonies, concertos, opera and jazz will be included in the topics covered. Emphasis on developing listening skills to bring the student to an informed awareness and understanding of great music. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcome of the Course: Upon successful completion of this course the student will be able to: 1. Describe the properties of sound 2. Identify the three kinds of musical texture 3. Explain the techniques that create musical form 4. List the instrumentation of a standard orchestra and also describe how the orchestra developed through time 5. Trace the development of music from Gregorian chant of the Middle ages to the breakdown of tonality into the Twentieth century 6. Give specifics characteristics of music from each period of study 7. Describe the roots, characteristics and different styles of jazz 8. Identify composers from each period and list pertinent characteristics 9. Identify musical examples from each period and give the composer for each musical example	3.00	3.00	148757
				104	Fundamentals of Music	This course is for those students having little or no prior knowledge of music theory but desiring to learn and explore the basic tools of music: clefs, note names, scales, rhythm, intervals, key signatures, form and familiarity with the piano keyboard. Credits: 3 Hours 3 Class Hours Course Profile Objectives of the Course: 1. To introduce students the fundamental elements needed to write and perform music. 2. To develop a sensitibity and appreciation for the creation and analysis of music and how its tenets are grounded in form and structure.3. To develop in students an understanding of how the algorithmic and affective dimensions of music are balanced when composers create meaningful works of art. Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Aurally distinguish the differences among various scales, keys and chords. 2. Aurally distinguish the differences between simple and compound meter. 3. Correctly identify the key names of the piano keyboard. 4. Identify and construct major and minor key signatures. 5. Correctly identify pitches in all of the commonly used clefs. 6. Construct and identify the basic intervals used in musical composition and performance.	3.00	3.00	261641

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				108	History Renaissance to 1800	Students will develop an understanding of music from the Middle Ages through 1800 A.D. Active listening and discussion of the important historical and cultural influences and the development of music during the Medieval, Renaissance, Baroque and Classical Periods will be examined. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Identify essential elements of Medieval, Renaissance, Baroque and Classical Period styles. 2. Describe the transitions from each of those styles to the next. 3. Identify important composers and specific compositions representing all important genres. 4. Demonstrate the ability to apply that knowledge to any composition heard for the first time.	3.00	3.00	148761
				109	Ragtime to Rock Am Pop Mus	A survey of American popular music including folk songs, musical theater, jazz, country, rock, and bluegrass. This course will familiarize the student with popular music which helped shape the American culture and reflect important social, historical and political events. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Demonstrate a vocabulary for hearing, analyzing, and discussing any style of popular music. 2. Identify the origins and explain development of all major genres of popular music. 3. Recognize and describe cross-influences among those styles. 4. Explain the role of technology in the evolution of musical style and in the dissemination of music to the public.	3.00	3.00	148762
				111	19th Century Music	Important musicians and musical styles of the Romantic Period. Emphasis on developments in piano literature, the symphony orchestra and opera. Listening to selected recordings and attendance at local concerts. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Describe the many aspects of Romanticism and their effect on compositional choice and style. 2. Identify the important movements and individual composers of the century and the contributions of each to stylistic progress. 3. Identify representative compositions and develop the ability to hear similar characteristics in any music from the period.	3.00	3.00	148763

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				112	20th Century Music	Important musicians and musical styles of the 20th century. Emphasis on the trends and development of music in America. Leading European composers. Prerequisite- Corequisite Prerequisite: MUS 101 Introduction to Music or consent of instructor Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Describe the transition out of a Romanticism-based aesthetic into a wider range of styles and motivations. 2. Identify important composers, and the aesthetic point of view they illustrate. 3. Identify representative compositions and the stylistic movements they exemplify.	3.00	3.00	148764
				114	History of the Opera	A survey of the various styles of opera from the 17th through the 20th centuries. Emphasis on the works of master composers - Monteverdi, Mozart, Verdi and Wagner; impact of opera on music history; social and cultural contents of opera. Prerequisite- Corequisite Prerequisite: MUS 101 or permission of instructor Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Recall and be knowledgeable of great operas and arias from repertoir of Opera Seria of Baroque Period, Opera Buffa and Singspiel of the Classical Period, the golden age of opera in the Romantic Period, as well as masterworks and current operas of the 20th Century. 2. Demonstrate knowledge of the operas of Caccini, Monteverdi, Purcell, Handel, Mozart, Verdi, Donizetti, Bizet, Gounod, Wagner, Strauss, as well as current composers.	3.00	3.00	148765
			PHI	102	General Philosophy	This course introduces Philosophy by examining some of its major areas, including metaphysics (theories concerning the nature of reality), epistemology (theories concerning the nature of human knowledge). ethics (theories of morality) and logic.	3.00	3.00	148872
				104	Philosophy of Religion	An examination of the relationship between Relation of religion and philosophy and an investigation of the different concepts of God. An Analysis of religion's types and experiences, and a review of the different attempts to justify religious beliefs. An exploration of the logic of religious experience through a consideration of the leading ideas in the philosophy of religion both as a historical and contemporary phenomenon.	3.00	3.00	148873
				105	World Religions	A survey of the major world religious traditions, including Hinduism, Buddhism, Confucianism, Judaism, Christianity, and Islam. The origins, major historical developments, socio-cultural influences, and core beliefs and practices of each tradition will be studied. The instructor may choose to include other traditions as well.	3.00	3.00	148874

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				201	Ethics:Moral Philosophy	An examanination of the main classical and modern ethical theories, including those of such theorists as Plato, Aristotle, Mill, Kant, and Moore. A comparison and contrast of normative and meta-ethical theories, the good life and how one should act, the meaning of moral judgments and the criteria of validity and the justification of moral beliefs and the ground of moral responsibility.	3.00	3.00	148875
				203	Issues in American Education	Philosophy of selected American educators, with attention on the historical development of the American educational system. Brief review of educational outlooks from antiquity to the present, including Plato, Aristotle, Rousseau. Analysis of educational issues and of key terms in education from philosophical perspective. The nature of the individual, the school and society and the underlying philosophical interrelations that may exist.	3.00	3.00	148877
				206	Social/Political Philosophy	A philosophical study of the social/political organization of society through an examination of such topics as justice, authority, leadership, individual rights, and of the relationship between the state and various social institutions, such as family, business, church, and education.	3.00	3.00	148878
			SPA	204	Spanish thru Its Literature	To talk about literature is also to talk about history, culture, and experience. This course will attempt to explore the ways in which Latin American/Hispanic writers have made connections between literature and history, literature and culture, literature and experience. One of the objectives of this course is to provide students an opportunity to examine the social, historical, and culture context(s) in which Latin American/Hispanic literature is produced. That is, to open a space, a ?contact zone,? that will allow students to relate not only with the Spanish language but also with its literary production, its culture and its history.	3.00	3.00	149010
				207	Intro to Latin Amer Literature	An introductory survey of Latin Americas literary production with special attention to historical and social contexts. The course will include selected readings reflecting historical developments of Latin American literature from the Conquest to the "Boom" to Testimonial Narrative. The selections to be read will include works by Colon, Guaman Poma de Ayala, Bartolome de las Casas, Gabriel Garcia Marquez, Elena Poniatowska, Laura Esquivel, Isabel Allende, Vargas Llosa, Cortazar, and Carmen Cecilia Suarez.	3.00	3.00	149011

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
			THR	102	Intro to Musical Theater	Chronological history of American Musical Theatre (with contemporary British additions) from 19th century minstrelsy, melodrama, vaudeville and burlesque to the present day Broadway musical. Interaction of composer, lyricist, librettist, director, choreographer, performers and technicians. Illustrated by films, slides and live performances.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Define the evolution of the American musical from the 19th century to the present.2. Identify the roles played by the various migrating groups to America in shaping the art form.3. Recognize and define the roles of the composer, lyricist, and book writer.4. Recognize and define the contribution made to the production by the director, choreographer, stage designer, costume designer, sound designer, etc.5. Explain how musical theater reflects the culture and period in which it occurs.	3.00	3.00	149027
				221	History of the Theater (WE)	History of theatrical production with selected periods of theater activity as a mirror of social and cultural experience from ancient times to the present. Credits: 3Hours3 Class HoursNoteGood for students from all disciplines.Course ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Explain and write about aspects of historical periods of theater from the Greek and Roman to the contemporary.2. Speak and write about individual playwrights and their reflection of a given period of history.3. Articulate theater epochs in terms of the styles, movements and plays specific to each period.4. Explain their knowledge of recorded history in general with its political, sociological and artistic movements.5. Use critical writing skills which comply with and meet standards of writing emphasis.	3.00	3.00	149045
		The Arts	ART	102	History of Western Art I (WE)	An overview of Western Art and Architecture from the 25,000 B.C.E. to about 1350 C.E. Study of objects, sculptures, paintings, ceramics, and architecture with a focus on the social, religious, political, and philosophical influences that affected cultural development in the Ancient World. Slide lecture format.	3.00	3.00	148021
				103	History of Western Art II (WE)	Survey of the visual arts in Western culture from the early Renaissance until today, revealing the ways that the world and the thoughts of men and women have changed during this period, and how evolving ideas are reflected in works of art. Slide lecture format.	3.00	3.00	148022

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				104	History of Asian Art	History of Asian Art is appropriate for all students who are interested in the cultural traditions and artistic expressions of Asian countries. This course presents a general survey of the development of Asian Art and Architectural forms in the Far East including India, Japan and China with supplementary study of Korea, Tibet, Indonesia, Burma and Thailand. Cultural traditions, especially Buddhism introduced. Prior experience in art history is not necessary. The format involves slide lecture, readings and class discussion.	3.00	3.00	148023
				105	Intro Two Dimensional Design	Introduction to design involves the student with investigation of visual perception and organization. Training the eye to become sensitive to design elements and principles is emphasized. Critical analysis of point, line, shape, value, texture, and color; and balance, proportion, scale, rhythm, and unity. The student will become familiar with a variety of media and intellectual comprehension of text, lecture, and visual examples. Class projects will focus on learning design methods that are based on logic and expression, to create spatial illusion within a two-dimensional context.	0.00	3.00	148024
				106	Intro 3 Dimensional Design(WE)	Developing sensitivity and awareness of our spatia environment is the object of this course. Aesthetic and functional elements of three-dimensional design are explored. Through reading, projects, lectures and field trips, techniques are explored to assist in heightening awareness. This enables the student to understand the functional and aesthetic examples of the three-dimensional environment. Emphasis is placed on studio projects.	0.00	3.00	148025
				108	History of Architecture I	Overview of 40 centuries of building, beginning in Ancient Egypt. The student follows the political technological, religious and social movements that have influenced the major design styles, outstanding architects, and designer of each era through the Gothic period.	3.00	3.00	148027
				109	History of Architecture II	Overview of the history of buildings from the Early Renaissance to the present. Students achieve an historical perspective on and understanding of the development and evolution of architectural design.	3.00	3.00	148028
				110	Modern Art	Art of the late 19th century. Impressionism (circa 1870) to Cubism and other forms of abstract art Panorama of 20th century visual movements including Futurism, Surrealism, Abstract Expressionism Pop Art, and Post-Modernism. Slide/lecture format and field trips.	3.00	3.00	148029
				111	Hist Decorative Arts 1600 on	Introduction to the development of style in fabric furniture and accessories for the interior from 1600 to the present. Emphasis will be placed on the history of American interiors. Required for interior design students, recommended for students in Art and Design and as an elective for students interested in history or American Studies.	3.00	3.00	148030

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				112	Beginning Photography	Basics of camera design and operation, plus the fundamentals of photographic visualization and composition; line, form, color, light shadow. Darkroom procedures, film processing, basic printmaking, selecting printing techniques. (Students can sign-out cameras and other supplies from the Communications Department thus reducing the overall costs for photo supplies.)	0.00	3.00	148031
				113	History Modern Design	Survey of modern design examines changing developments in graphics, industrial design, architecture and decorative arts from 1851 to the present. Beginning with The Exhibition of Art and Industry in London and concluding with postmodernism, mass culture and the role consumption plays in design will be explored. The course focuses on design as a creative activity influenced by technology, economics and social history.	3.00	3.00	148032
				115	Beginning Drawing	Emphasis on a series of open-ended interrelated problems dealing with visual language and its vocabulary, and organization. Drawing problems will intensify the student's perception and comprehension of the elements and principles of design including point, line, shape, tone, texture, and color; and balance, proportion, scale, rhythm, and unity in composition. Student's perception and comprehension of light, space, and form will be given special emphasis. Format involves intensive instruction and demonstrations in charcoal, pencil, pen and ink, and mixed media as a means to personal investigation, under-standing, and expression. Subjects include land-scape, figure, and still-life. Various historical models will be studied through text and visual examples. Students are encouraged to develop their own style and viewpoint through discussion of art criticism.	3.00	3.00	148034
				116	Painting I	Lectures and practical application will focus on design fundamentals to depict form in space. Subjects include value studies of form light, front light, rim light, and back light. Paint-handling, composition, figure-based vignettes, still-life, landscape, and abstraction will be explored. In the Summer session, the landscape will be the subject of lectures and practical applications. Lectures will include value studies of the sunny day, gray day, and moonlit sky with and without recession.	3.00	3.00	148035

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				118	Intro to Digital Photgraphy	This course is an Introduction to Digital Photography. The purpose of this course is to develop proficiency in digital photography and the ?digital darkroom" through projects in digital photography and Adobe Photoshop. It is suggested that students have prior experience working with Adobe Photoshop, but it is not required. Students will learn about: color temperature, exposure, and camera controls (depth of field; shutter speed), creative and technical applications relating to composition and aesthetics in photography, photographic representation, electronic publishing, digital output, portfolio preparation, and careers in digital photography. Students will be encouraged to use the medium of digital photography to develop a personal vision as evidenced in his or her final portfolio.Credits: 3Hours2 Class Hours, 2 Laboratory HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Understand the relationship between traditional photography and digital photography.2. Utilize the proper technique and tools in relation to camera equipment, hardware and editing software.3. Demonstrate understanding of the principles of design and artistry through the use of color, light, composition and balance.4. Develop skills for varying types of photo shoots (i.e. Studio and location).5. Effective use of time management skills as they pertain to the digital photographic medium.6. Develop and utilize appropriate photo	0.00	3.00	281375
				119	Art of Science	The Art of Science is an introductory course that explores the fundamentals of scientific and medical illustration. Learn how to visually investigate and represent plants, animals, microbes and insects while you heighten your appreciation and understanding of the natural world. Create simple diagrams of plants and anatomical structures, as you delve into the mysterious worlds of botany, anatomy, physiology and entomology. Learn how to make colorful and informative visuals that could be used in textbooks, journals, museum displays, web sites, videos, educational software, or anatomical diagrams for medical professionals.Credits: 3Cross-listedBIO 119Hours2 Class Hours, 3 Studio HoursCourse ProfileObjective of the Course:1. Develop an appreciation for the relationship of art and science2. Synthesize information, think critically and solve critical thinking problems; write clear, well organized essays or research papers that demonstrate synthesis.3. Apply principles of scientific inquiry, differentiate a theory from a hypothesis, and differentiate fact from opinion in regard to biological sciences.4. Define and correctly use scientific terminology in regard to biological organisms and processes.5. Work well independently and in small groups. Show self-direction and motivation, and contribute to group work.6. Students will demonstrate the ability to acquire and communicate scientific data, ideas, and interpretations through written, oral, and visual means.7. Students will	0.00	3.00	286235

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				125	Intro to Computer Graphics	The study of Visual Communication theory relating to applied arts fields such as advertising and editorial design, animation, gaming, and web design. Students are introduced to vector and raster graphic programs on Macintosh computers, and learn how to develop initial thumbnail sketches into final design comprehensives. Other topics include digital photography, scanning, image manipulation, color correction, and typography.	0.00	3.00	148038
				130	Into Ceramics: Const & Glazes	Study of the basic processes of design and creation of clay forms, both functional and sculptural. Techniques of handbuilding, throwing on the potter's wheel, glazing and firing will be explored.	3.00	3.00	148039
				140	Printmaking	This three-part course will begin with an introduction to printmaking through the methods of collograph and monotype printing. Then linecuts and woodcuts will be developed, and there will be a concentration on the silkscreen process. The third part will be an historical survey of printmaking and its techniques. This will be accomplished through visits to local print collections.	3.00	3.00	148040
				145	Children and the Arts	This course prepares students to effectively teach the arts to young children. Students learn the role of creative movement, dramatics, music, and visual art in young children's education through the exploration of their own creative identity and become comfortable in using integrated teaching methods, which nuture creativity in young children. Through discussion and analysis of current research and theory in the teaching of the arts, they also learn how to choose and use multicultural fine artworks, music, and children's literature, how to use the arts in inclusionary practice, and how to assess children's artistic progress to enhance children's creative development in the arts.Credits: 3Cross-listedECE 145Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Plan and carry out developmentally appropriate, integrated activities in the arts that nurture creativity and foster children's development and meet the arts standards.2. Understand the role their personal experiences in the arts play in how they approach arts education with young children.3. Use authentic assessment tools to evaluate children's development in the arts.4. Adjust and adapt arts activities to meet	3.00	3.00	322535
				146	History of Photography	This course is designed to give students a strong background in the historic, aesthetic, and cultural background of photography as both a significant art form and important cultural and communications medium. The course content includes topics dealing with the invention of photography, photography as art in the 19th century, great photographers, and new photography.	3.00	3.00	148041

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				215	Painting II	An opportunity to refine the principles explored in Painting I with an emphasis on execution. Preliminary studies in composition will be required before focusing on large-scale finished paintings. Concepts of edges, lighting, planes, forms, value relationships, and brushwork re-examined.	3.00	3.00	148051
				217	Advanced Drawing	Advanced course presenting new media techniques and concepts; life drawing emphasized.	3.00	3.00	148053
				222	Advanced Photography	Advanced Photography is a lecture/laboratory course that offers students with previous photography education or experience the opportunity to further explore photography as an expressive tool. The scope and approach of the course is the study and application of advanced methods of working with a photographic camera, as well as processing film and prints with photochemistry.	0.00	3.00	181414
				226	Advanced Computer Imagery	A continuation of Visual Communication theory that students were introduced to during ART 125/COM 124. Through more advanced visual design problems, students will develop their conceptual problem-solving skills relative to applied arts fields such as advertising and editorial design, animation, gaming, and web design. Advanced digital imagery techniques will be introduced using Photoshop CS2, in addition to page layout theory using QuarkXPress.	0.00	3.00	148055
				227	Editorial Design	Students investigate the segment of the graphic arts industry that is responsible for the creation of news-papers, tabloids, and periodicals such as magazines and monthly trade journals. The art of page layout is explored as a powerful tool that editorial designers can use to influence how we interpret world and local events. This course will emphasize the idea that "people learn best by doing". Students will publish a periodical. The classroom setting will be transformed into a small-scale publishing business where students experience a variety of publishing roles such as: Art Direction, Advertising Design, Page Layout, Marketing, Advertising and Sales, and Editing. Students will experience and understand the critical connection between Graphic Arts and Business. The publication will contain advertisements created for local businesses and text gathered from faculty members, students, and our community. Students will have the opportunity to develop professional relationships with local business clients.	0.00	3.00	148056
				228	Animation I	Animation I introduces the student to the beginning concepts of classical animation. The focus is the investigation of two-dimensional animation using the program of Macro-media Director MX. Topics covered are writing for animation and history of animation, in addition to basic animation concepts such as character development, storyboarding, audio/music timing and screening.	0.00	3.00	148057

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				230	Producing Public Murals	Producing Public Murals introduces students to all aspects of mural design and production. The curriculum will help students develop several practical skills: drawing, painting, understanding logistics, planning strategies/processes, selecting materials, and problem-solving. Students will identify and evaluate prospective mural sites; study the composition and durability of various paints and sealants; investigate various methodologies for painting and/ or installing murals; and, ultimately, participate in the creation of a public mural. In addition, students will explore the role of murals (and other forms of public art) in the aesthetic, social, and economic revitalization of communities.	0.00	3.00	148058
			BIO	119	Art of Science	The Art of Science is an introductory course that explores the fundamentals of scientific and medical illustration. Learn how to visually investigate and represent plants, animals, microbes and insects while you heighten your appreciation and understanding of the natural world. Create simple diagrams of plants and anatomical structures, as you delve into the mysterious worlds of botany, anatomy, physiology and entomology. Learn how to make colorful and informative visuals that could be used in textbooks, journals, museum displays, web sites, videos, educational software, or anatomical diagrams for medical professionals.Credits: 3Cross-listedART 119Hours2 Class Hours, 3 Studio HoursCourse ProfileObjective of the Course:1. Develop an appreciation for the relationship of art and science2. Synthesize information, think critically and solve critical thinking problems; write clear, well organized essays or research papers that demonstrate synthesis.3. Apply principles of scientific inquiry, differentiate a theory from a hypothesis, and differentiate fact from opinion in regard to biological sciences.4. Define and correctly use scientific terminology in regard to biological organisms and processes.5. Work well independently and in small groups. Show self-direction and motivation, and contribute to group work.6. Students will demonstrate the ability to acquire and communicate scientific data, ideas, and interpretations through written, oral, and visual means.7. Students will	0.00	3.00	286255
			COM	112	Beginning Photography	Basics of camera design and operation, plus the fundamentals of photographic visualization and composition; line, form, color, light shadow. Darkroom procedures, film processing, basic printmaking, selecting printing techniques. (Students can sign-out cameras and other supplies from the Communications Department thus reducing the overall costs for photo supplies.)	0.00	3.00	212390

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				124	Intro to Computer Graphics	The study of Visual Communication theory relating to applied arts fields such as, advertising and editorial design, animation, gaming, and web design. Students are introduced to vector and raster graphic programs on Macintosh computers, and learn how to develop initial thumbnail sketches into final design comprehensives. Other topics include digital photography, scanning, image manipulation, color correction, and typography.	0.00	3.00	148288
				145	Contemporary Film Analysis	Topics covered within the class are cinematography, narrative vs. non-narrative structure, symbolism, genre, realism vs. expressionism, composition, and editing style. Course work consists of analysis of contemporary issues through screening and discussion of film/cinema work from numerous historical periods.	3.00	3.00	148291
				200	Image Theory Film Photo TV(WE)	This course offers the student a chance to study many of the important theories behind image production and its effectiveness. The class will survey the work of several significant photographers, filmmakers, and television artists. There is an emphasis on the formal elements of the still and moving images and their psychological and aesthetic effects. Students will have the chance to discuss the history and development of visual image production spanning from the pre-technological era to the present, with a view toward understanding the universal nature of the need for visual and conceptual expression among all mediums.	3.00	3.00	148294
				205	Introduction to Filmmaking	This course offers the student an introduction to the craft of filmmaking and motion picture production. Within the course the student will receive a hands-on approach to the principles of cinematography, including formats, film stocks, lighting, and camera operation. Topics covered will include production techniques involved in single-system filmmaking, basic editing, screening techniques, and shooting film for video transfer and post-production.	0.00	3.00	148296
				215	Intermediate Filmmaking	This concentrated, advanced-level course examines digital filmmaking as a cinematic form of visual storytelling for the 21st Century. Students will be introduced to the art of filmmaking using inexpensive Digital Video as the medium. Each student will write, shoot, and edit a high production value short film using the school?s digital cameras and editing equipment. The primary emphasis is telling a story visually by producing, directing, and supervising cinematography, lighting, grip, editing, and sound recording. Also, students will learn all of the basic positions and responsibilities on a professional independent film set. Prior experience in visual production or photography is helpful but not required.	0.00	3.00	148300

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				222	Advanced Photography	Advanced Photography is a lecture/laboratory course that offers students with previous photography education or experience the opportunity to further explore photography as an expressive tool. The scope and approach of the course is the study and application of advanced methods of working with a photographic camera, as well as processing film and prints with photochemistry.	0.00	3.00	181420
				226	Advanced Computer Imagery	A continuation of Visual Communication theory that students were introduced to during ART 125/COM 124. Through more advanced visual design problems, students will develop their conceptual problem-solving skills relative to applied arts fields such as advertising and editorial design, animation, gaming, and web design. Advanced digital imagery techniques will be introduced using Photoshop CS2, in addition to page layout theory using QuarkXPress.	0.00	3.00	148302
			ECE	145	Children and the Arts	This course prepares students to effectively teach the arts to young children. Students learn the role of creative movement, dramatics, music, and visual art in young children's education through the exploration of their own creative identity and become comfortable in using integrated teaching methods, which nurture creativity in young children. Through discussion and analysis of current research and theory in the teaching of the arts, they also learn how to choose and use multicultural fine artworks, music, and children's literature, how to use the arts in inclusionary practice, and how to assess children's artistic progress to enhance children's creative development in the arts.Credits: 3Cross-listedART 145Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Plan and carry out developmentally appropriate, integrated activities in the arts that nurture creativity and foster children's development and meet the arts standards.2. Understand the role their personal experiences in the arts play in how they approach arts education with young children.3. Use authentic assessment tools to evaluate children's development in the arts.4. Adjust and adapt arts activities to meet the needs of children of different ages, backgrounds, and abilities.	3.00	3.00	148409
			ENG	170	Creative Writing (WE)	Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose, poetry, and drama. Class discussion, workshops, and personal conferences with the instructor.	3.00	3.00	148481

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				175	Creative Writing with Publicat	Students interested in imaginative writing have the opportunity to investigate concepts and to practice techniques implicit in three genres: nonfiction, fiction, and poetry. In addition, the class publishes a 100-page bound annual book presenting creative works drawn from a campus-wide group of writers, which include staff, students, faculty, and alumni. Learning format involves class discussions, work-shops, and personal conferences with the instructor. Students are expected to work on various aspects of magazine production, including soliciting, editing, and arranging pieces.	5.00	5.00	148482
			MUS	101	Introduction to Music	A survey course examining the music of the great composers representing each major period of Music History. How to listen to different forms of music such as symphonies, concertos, opera and jazz will be included in the topics covered. Emphasis on developing listening skills to bring the student to an informed awareness and understanding of great music. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcome of the Course: Upon successful completion of this course the student will be able to: 1. Describe the properties of sound 2. Identify the three kinds of musical texture 3. Explain the techniques that create musical form 4. List the instrumentation of a standard orchestra and also describe how the orchestra developed through time 5. Trace the development of music from Gregorian chant of the Middle ages to the breakdown of tonality into the Twentieth century 6. Give specifics characteristics of music from each period of study 7. Describe the roots, characteristics and different styles of jazz 8. Identify composers from each period and list pertinent characteristics 9. Identify musical examples from each period and give the composer for each musical example	3.00	3.00	148757

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				104	Fundamentals of Music	This course is for those students having little or no prior knowledge of music theory but desiring to learn and explore the basic tools of music: clefs, note names, scales, rhythm, intervals, key signatures, form and familiarity with the piano keyboard. Credits: 3 Hours 3 Class Hours Course Profile Objectives of the Course: 1. To introduce students the fundamental elements needed to write and perform music. 2. To develop a sensitibity and appreciation for the creation and analysis of music and how its tenets are grounded in form and structure. 3. To develop in students an understanding of how the algorithmic and affective dimensions of music are balanced when composers create meaningful works of art. Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Aurally distinguish the differences among various scales, keys and chords. 2. Aurally distinguish the differences between simple and compound meter. 3. Correctly identify the key names of the piano keyboard. 4. Identify and construct major and minor key signatures. 5. Correctly identify pitches in all of the commonly used clefs. 6. Construct and identify the basic intervals used in musical composition and performance.	3.00	3.00	261641
				105	Music Theory I	A beginning course in music theory, including the rudiments of music, harmonic analysis including inversions through the dominant seventh chord, passing tones and part writing in root position of all diatonic triads excluding the diminished chord. Credits: 3 Hours 3 Class Hours Course Profile Objectives to the course: 1. To develop upon music fundamentals learned in MUS 104 or through previous music study. 2. To introduce students to the process of composing and analyzing music. 3. To foster and build a love and appreciation of all musical genres. Learning Outcomes of the course: Upon successful completion of this course the student will be able to: 1. Visually and aurally distinguish between seven types of scales, Major and minor keys, and Major, minor, Augmented, and diminished triads. 2. Identify and build the seven different church modes. 3. Correctly build the Major and relative minor key signatures in the Circle of Fifths/Fourths. 4. Successfully identify the harmonic chords in both Major and minor keys. 5. Write a musical composition using and following all part-writing rules.	3.00	3.00	148758

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				106	Music Theory II	Continuation of Music Theory I including part writing of all diatonic chords in first and second inversion, harmonic analysis of all non harmonic tones including inversions of the dominant seventh chord and transposition and scoring for brass instruments. Prerequisite- Corequisite Prerequisite: MUS 105 Music Theory I Credits: 3 Hours 3 Class Hours Course Profile Objectives to the course: 1. To develop upon topics learned in MUS 105 (Music Theory I). 2. To introduce students to the process of analyzing music for chord and non-chord tones, as well as cadences, and small form. 3. To foster and build a love and appreciation of all musical genres. Learning Outcomes of the course: Upon successful completion of this course the student will be able to: 1. Visually and aurally distinguish between all cadences and non-chord tones. 2. Construct and discuss the differences between small form types. 3. Correctly build seventh chords in both Major and minor keys. 4. Successfully analyze and compose counterpoint examples in First and Second species. 5. Write a musical composition using and following all part-writing rules while including non-chord tones, cadences, and seventh chords.	3.00	3.00	148759
				107	Music Theory III	Continuation of Music Theory II including writing and analysis of the dominant seventh chord, the diminished seventh chord, applied dominants, chromatic third relationships, modulation to related and foreign keys, mode mixture, Neopolitan 6th chord, Augmented Sixth chords, analysis of form including Sonata Form, Rondo, Theme and Variations and an introduction to Species Counterpoint.Prerequisite- CorequisitePrerequisite: MUS 106 Music Theory II Credits: 3 Hours-3 Class Hours Course Profile Objectives to the course: 1. To develop upon topics learned in MUS 106 (Music Theory II). 2. To introduce students to the process of analyzing and composing music with borrowed chords, mode mixture, and Neapolitan and Augmented Sixth chords. 3. To foster and build a love and appreciation of all musical genres. Learning Outcomes of the course: Upon successful completion of this course the student will be able to: 1. Visually and aurally distinguish between Neapolitan and all three types of Augmented Sixth chords. 2. Construct and discuss the differences between Italian, French, and German Augmented Sixth chords. 3. Correctly build secondary dominant and secondary leading time chords in both Major and minor keys. 4. Successfully analyze a piano sonata that includes mode mixture and borrowed chords. 5. Write a large musical composition using and following all part-writing rules while including non-chord tones, cadences, seventh chords, borrowed chords,	3.00	3.00	148760

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				108	History Renaissance to 1800	Students will develop an understanding of music from the Middle Ages through 1800 A.D. Active listening and discussion of the important historical and cultural influences and the development of music during the Medieval, Renaissance, Baroque and Classical Periods will be examined. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Identify essential elements of Medieval, Renaissance, Baroque and Classical Period styles. 2. Describe the transitions from each of those styles to the next. 3. Identify important composers and specific compositions representing all important genres. 4. Demonstrate the ability to apply that knowledge to any composition heard for the first time.	3.00	3.00	148761
				109	Ragtime to Rock Am Pop Mus	A survey of American popular music including folk songs, musical theater, jazz, country, rock, and bluegrass. This course will familiarize the student with popular music which helped shape the American culture and reflect important social, historical and political events. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Demonstrate a vocabulary for hearing, analyzing, and discussing any style of popular music. 2. Identify the origins and explain development of all major genres of popular music. 3. Recognize and describe cross-influences among those styles. 4. Explain the role of technology in the evolution of musical style and in the dissemination of music to the public.	3.00	3.00	148762
				111	19th Century Music	Important musicians and musical styles of the Romantic Period. Emphasis on developments in piano literature, the symphony orchestra and opera. Listening to selected recordings and attendance at local concerts. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Describe the many aspects of Romanticism and their effect on compositional choice and style. 2. Identify the important movements and individual composers of the century and the contributions of each to stylistic progress. 3. Identify representative compositions and develop the ability to hear similar characteristics in any music from the period.	3.00	3.00	148763

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				112	20th Century Music	Important musicians and musical styles of the 20th century. Emphasis on the trends and development of music in America. Leading European composers. Prerequisite- Corequisite Prerequisite: MUS 101 Introduction to Music or consent of instructor Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Describe the transition out of a Romanticism-based aesthetic into a wider range of styles and motivations. 2. Identify important composers, and the aesthetic point of view they illustrate. 3. Identify representative compositions and the stylistic movements they exemplify.	3.00	3.00	148764
				114	History of the Opera	A survey of the various styles of opera from the 17th through the 20th centuries. Emphasis on the works of master composers - Monteverdi, Mozart, Verdi and Wagner; impact of opera on music history; social and cultural contents of opera. Prerequisite- Corequisite Prerequisite: MUS 101 or permission of instructor Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Recall and be knowledgeable of great operas and arias from repertoir of Opera Seria of Baroque Period, Opera Buffa and Singspiel of the Classical Period, the golden age of opera in the Romantic Period, as well as masterworks and current operas of the 20th Century. 2. Demonstrate knowledge of the operas of Caccini, Monteverdi, Purcell, Handel, Mozart, Verdi, Donizetti, Bizet, Gounod, Wagner, Strauss, as well as current composers.	3.00	3.00	148765
				180	Jazz Improvisation	Basic concepts of soloing in the jazz idiom for instrumentalists. Teach students to interpret chord symbols and understand the sounds that they represent in a meaningful way to create a jazz solo with their instrument. Prerequisite- Corequisite Prerequisite: MUS 105 Music Theory I or permission of instructor; May be repeated for credit once Credits: 2 Hours 2 Class Hours, 2 Studio Hours Note Attendance at jazz concerts required. Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Construct a solo in the jazz style. 2. Employ digital playing over chord changes. 3. Utilize modes in soloing. 4. Demonstrate chord extensions and altered chords in their soloing. 5. Perform five jazz "standards" from memory. 6. Integrate the blues form and style into soloing. 7. Demonstrate "turn arounds" in their playing. 8. Plan the creation of a solo as it relates to range and rhythmic intensity.	0.00	2.00	148774

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				185	Beginning Guitar	Emphasis on Music Fundamentals, scales, chords, reading rhythms and learning to accompany singers. Students must own their own instruments. Credits: 1 Hours 2 Studio Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Play at least fifteen different chords. 2. Read basic musical rhythms in treble clef. 3. Demonstrate correct picking and fingering techniques. 4. Discuss and demonstrate chord and scale theory.	1.00	1.00	148777
				188	Pract Music Theory/Perf Musicn	Designed to help the novice performer of music understand key signatures, scales, rhythms, chords, form intervals, transposition, notation and sight reading. Emphasis on fundamentals of music and practical application of what is learned. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Construct and identify the various fundamental elements of music listed in the course description. 2. Demonstrate the application of the course material through the critical analysis of musical compositions and popular songs.	3.00	3.00	148780
			PED	135	Jazz Dance I (CV)	Jazz dance technique through practical skill work, jazz styles and dance combinations.	1.00	1.00	148815
				137	Jazz Dance II (CV)	A continuation of Jazz Dance I, emphasizing jazz dance techniques throught practical skill work.	1.00	1.00	148816
			THR	101	Theater Appreciation: Image Ma	This course surveys the history and evolution of drama from Ancient Greece to the present time, emphasizing all aspects of the art form including playwriting, acting, directing, scene design, and an analysis of dramatic literature. Attendance at local productions is required. Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Appreciate theater as an art form and differentiate it from other art forms.2. Write about and analyze the parts of a play including Aristotle's six parts.3. Define characteristics of theater in various periods of history.4. Explain the organizational process involved in bringing a play to a fully staged theatrical production.5. Recognize the aspects of theater including artistic, production and administrative.6. Define the roles/responsibilities of all the personnel who mount a theater production including directors, designers, actors, etc.7. Practice critical analysis of live and recorded theatrical productions.8. Analyze form, context and aesthetic qualities of dramatic literature and performances	3.00	3.00	149026

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				102	Intro to Musical Theater	Chronological history of American Musical Theatre (with contemporary British additions) from 19th century minstrelsy, melodrama, vaudeville and burlesque to the present day Broadway musical. Interaction of composer, lyricist, librettist, director, choreographer, performers and technicians. Illustrated by films, slides and live performances.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Define the evolution of the American musical from the 19th century to the present.2. Identify the roles played by the various migrating groups to America in shaping the art form.3. Recognize and define the roles of the composer, lyricist, and book writer.4. Recognize and define the contribution made to the production by the director, choreographer, stage designer, costume designer, sound designer, etc.5. Explain how musical theater reflects the culture and period in which it occurs.	3.00	3.00	149027
				109	Practicum Theater	Stage design and construction techniques are studied as students engage in problem solution, system design and assist with theater department productions. Problems in construction and use of theater equipment and facilities; movable scenery and non-permanent stage equipment; sound and lighting systems. Lecture, discussion, studio work.	3.00	3.00	149028
				110	Practicum Theater	Stage design and construction techniques are studied as students engage in problem solution, system design and assist with theater department productions. Problems in construction and use of theater equipment and facilities; movable scenery and non-permanent stage equipment; sound and lighting systems. Lecture, discussion, studio work.	3.00	3.00	149029
				111	Introduction to Acting	Fundamental principles of acting technique are introduced. Exercises for body and voice are practiced as well as the skills of concentration, improvisation, imagination, sense memory, objectives, action, obstacles and circumstances. Excellent for students in disciplines other than theater who wish to explore how acting techniques can enhance their life and work.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Use their voice and body (actor's tools) for effective performance skills.2. Practice Stanislavsky's elements i.e. concentration, observation, imagination, etc.3. Demonstrate the elements of a dramatic scene.4. Explore the language and stories of Shakespeare.5. Define the history of the acting profession and the "business" of acting.6. Define the different skills needed for film vs. stage acting.	3.00	3.00	149030

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				112	Acting II	This is an intermediate course for those who wish to continue the study of the acting process in greater depth. "Method" and classical approaches are employed for an actor's approach to a role; text and character analysis of various dramatic genres. For a basic foundation, students work with the works of major playwrights including Shakespeare.Prerequisite-CorequisitePrerequisite: THR 111 Introduction to Acting or consent of Instructor by auditionCredits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Be proficient in the skills of relaxation/concentration/observation/improvisation/imagination.2. Practice voice and movement exercises to help develop their physical instrument. 3. Analyze and write about the elements of dramatic material such as character, objectives, physical and emotional circumstances and actions. 4. Identify and write about acting theory as it developed over time including the methods, directors, actors and teachers involved. 5. Perform, recite and interpret the heightened language of Shakespeare. 6. Create a life for a character from dramatic literature.7. Discuss and write about the development and history of the acting profession. 8. Employ a basic knowledge of the "business" of acting	3.00	3.00	149031
				114	Oral Interpretation	Oral presentation of prose, poetry, drama and comedy performed individually and in groups.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Acquire the performance skills necessary to share a believable, honest and clear interpretation of a literary work with an audience.2. Analyze and understand the meaning of selected works of literature.3. Apply their own life experience to performance of texts.4. Evaluate and critique the oral interpretative skills of others.5. Use constructive collaborative skills as a result of the team spirit needed to work with a group or partner on an interpretative project.	3.00	3.00	149032

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				117	Creative Dramatics	Fundamentals of creative dramatics, its use in teaching, recreation and rehabilitation. Introduction to techniques used and practical application opportunities.Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Practice the elements of drama such as voice/body utilization, imagination, improvisation, etc.2. Utilize interpersonal skills and confidence in their own instincts by applying dramatic techniques.3. Demonstate dramatic techniques as a teaching/learning tool.4. Practice dramatic techniques of improvisation and role playing for the purpose of problem-solving.5. Evaluate the effectiveness of dramatic exercises.6. Conceptualize theatrical productions as a whole.7. Demonstrate knowledge of instructional strategies through practice and creating a lesson plan.	3.00	3.00	149033
				151	Stage Craft 1	Classroom and workshop study relative to technical elements of theater production. All aspects are introduced and can be practiced including costume design and construction, stage lighting design and mechanics, sound design, props and stage management. Lecture, discussion and studio work on theater department productions. Credits: (1-4) Hours 2 Class Hours, 1-4 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Assist in designing a model and set for a full-fledged theater production.2. Practice with hand tools commonly found in theater scene shops.3. Aid in constructing scenery from working drawings.4. Choose the appropriate materials and hardware for scenic construction.5. Identify the basic types of theater spaces and their differences in staging.6. Express a basic knowledge of theatrical technology.7. Define the roles and responsibilities of individuals involved in theatrical production.8. Be somewhat proficient in one or more of the technical aspects of a theater production in costumes, props, scene design, lighting or sound.	0.00	4.00	149035

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				152	Stagecraft II	Classroom and workshop study relative to technical elements of theater production. Particular emphasis is on stage management, house management, props and operation of stage crews. Lecture, discussion and studio work on theater department productions. Credits: (1-4) Hours 2 Class Hours, 1-4 Laboratory Hours Course Profile Learning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Assist in designing a model and set for a full-fledged theater production.2. Practice with hand tools commonly found in theater scene shops.3. Aid in constructing scenery from working drawings.4. Study the skills needed to properly fulfill the position of stage manager, house manager, prop master, costume master, etc.5. Identify the basic types of theater spaces and their differences in staging.6. Express a basic knowledge of theatrical technology.7. Define the roles and responsibilities of individuals involved in theatrical production.8. Be somewhat proficient in one or more of the technical aspects of a theater production in costumes, props, scene design, lighting or sound.	0.00	4.00	149036
				161	Playwriting (WE)	Students will practice writing for the stage in a format of lecture/seminar and workshop. Playwriting involves elements of dramatic action, character, plot, structure, story, style, conflict and staging suitability.Prerequisite-CorequisitePrerequisite: ENG 110 College Writing I Credits: 3Hours3 Class HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Write "conflict," "dramatic action," and "critique" plays in short, summary annotations .2. Critically analyze and interpret theatre as dramatic "action" 3. Analyze plays in terms of dramatic components of P.A.S.T.O: Preparation, Attack, Struggle, Turning Point, Outcome.4. Analyze plays from a playwright's point-of-view about story and dramatic action.5. Recognize differences of "style" lyricism, realism, naturalism, expressionism; epci.6. Properly format a one-act play script and possibly write and revise a one-act play, 15-20 pages.7. Use critical writing skills which comply with and meet standards of writing emphasis.	3.00	3.00	149037

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				165	Dance for Actors I	Basic dance techniques, dance characterization, and movement relative to performance in musical theater.Credits: 1Hours8 Class Hours, 22 Laboratory HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Practice movement techniques that develop musicality and rhythmic skills.2. Perform choreography that contains simple rhythmic changes.3. Develop greater strength, stretch, and range of mobility.4. Approach all training, practice and performance from an anatomically correct standpoint.5. Expand his/her expressive range of movement and performance.6. Define dance (jazz, ballet, etc.) and its vernacular roots through performing historical and present day styles.	1.00	1.00	149038
				175	Dance for Actors II	Intensive dance techniques, dance characterization, and movement relative to performance in musical theater.Credits: 1Hours8 Class Hours, 22 Laboratory HoursCourse ProfileLearning Outcomes of the Course:Upon successful completion of this course the student will be able to:1. Practice skills in movement including strength, flexibility, balance, control, musicality, and confidence in dancing in front of an audience.2. Develop musicality and rhythmic skills through performing choreography that contains complex rhythmic changes.3. Explain the history of dance (jazz, ballet, etc.) and its vernacular roots.4. Practice spatial awareness through performing choreography that incorporates directional changes, diverse floor patterns and movements that demand expansion and retraction of the body.5. Define new ways of approaching movement and will be encouraged to utilize these paths to enhance their movement experience.	1.00	1.00	149039
		Foreign Language	ARA	101	Beginners Arabic I	Introduction to the skills of listening, reading, speaking and writing with exposure to Arabic culture and peoples. Emphasis on developing communicative strategies in Arabic. Appropriate course for beginners. Students with two or more years of high school Arabic should enroll in ARA 102. Native and heritage speakers of Arabic must not enroll in this course.	4.00	4.00	148019
				102	Beginning Arabic II	This is the second part of the first-year language sequence and continues to build on the skills of listening, reading, speaking and writing acquired in ARA 101. There will be an emphasis on the ability to use the target language to accomplish basic communicative tasks. Students should expect to be immersed in the language. English will be used at a minimum. The course promotes understanding and appreciation of the Arabic culture.Appropriate course for beginners. Heritage speakers (students who are exposed to a language other than English at home) and native speakers of Arabic should not enroll in ARA 102.	4.00	4.00	148020

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
			FRE	101	Beginning French I	An introduction to the basic principals of grammar. Emphasis on oral practice in classroom. Students will learn to appreciate the French culture through discussions and examination of real life situations in France & Francophone countries. Appropriate course for beginners. Students with two or more years of high school French should enroll in FRE 102. Native and heritage speakers of French must not enroll in this course.	4.00	4.00	148500
				102	Beginning French II	An introduction to the basic principals of grammar. Emphasis on oral practice in classroom. Students will learn to appreciate the French culture through discussions and examination of real life situations in France & Francophone countries. Native and heritage speakers of French must not enroll in this course.	4.00	4.00	148501
				201	Intermediate French I	Intensive review of grammar and syntax. A cultural, conversational and literary approach to French language. Students will continue learning about the French & Francophone cultures and examine them and be prepared to handle various situations.	3.00	3.00	148502
				202	Intermediate French II	Intensive review of grammar and syntax. A cultural, conversational and literary approach to French language. Students will continue learning about the French & Francophone cultures and examine them and be prepared to handle various situations.	3.00	3.00	148503
			GER	101	Beginning German I	Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Written homework assignments supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts. Appropriate course for beginners. Students with two or more years of high school German should enroll in GER 102. Native and heritage speakers of German must not enroll in this course.	4.00	4.00	148517
				102	Beginning German II	Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Written homework assignments supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts. Native and heritage speakers of Italian must not enroll in this course.	4.00	4.00	148518
			ITA	101	Beginning Italian I	Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of graded literary and cultural texts. Appropriate course for beginners. Students with two or more years of high school Italian should enroll in ITA 102. Native and heritage speakers of Italian must not enroll in this course.	4.00	4.00	148590
				102	Beginning Italian II	Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of graded literary and cultural texts. Native and heritage speakers of Italian must not enroll in this course.	4.00	4.00	148591

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				201	Intermediate Italian I	Comprehensive review of grammar and structure of the language. Intensive reading of literary works as a basis for topics of conversation in Italian in the classroom. Emphasis on aural comprehension and oral practice in classroom.	3.00	3.00	148592
				202	Intermediate Italian II	Intensive reading of literary works of recognized authors as a basis for topics of conversation in Italian in the classroom.	3.00	3.00	148593
			RUS	101	Beginning Russian I		4.00	4.00	148975
			SPA	101	Beginning Spanish I	Introduces the student to the sound system and grammatical structure of the Spanish language. The focus will be on developing and raising skill levels in the areas of aural comprehension, speaking, reading and writing. Use of the target language is greatly stressed. This course will also address various cultural aspects of the Spanish-speaking world. Appropriate course for beginners. Students with two or more years of high school Spanish should enroll in SPA 102. Native and heritage speakers of Spanish must not enroll in this course.	4.00	4.00	149003
				102	Beginning Spanish II	This course will build upon the grammatical structure of the Spanish language learned in first semester SPA 101. Speaking the language is greatly stressed at this level. Students of SPA 102 are expected to enhance the four language skills of speaking, listening, reading and writing. This course will also discuss various cultural aspects of the Spanish-speaking world. Prerequisite: SPA 101 or three years of high school Spanish or Chairperson permission. Students who have four years of high school Spanish may not take this course.	0.00	4.00	149004
				201	Intermediate Spanish I	One purpose of this class is to review what the student has already learned and to expand on it. This is a grammar class with an introduction to cultural and literary readings and basic research on topics related to the Spanish-speaking world. All skills (reading. Writing, listening, and speaking), as well as the three basic fields (grammar, literature, and culture), will be emphasized in the course. Speaking the language is greatly stressed at this level. Prerequisites: SPA 102. SPA 201 is an appropriate entry point for most students with four years of high school Spanish.	3.00	3.00	149007
				202	Intermediate Spanish II	The study of grammar and syntax will be emphasized through writing, reading, and conversation about Spanish and Latin American literary works of recognized authors. Speaking the language is greatly stressed at this level.	3.00	3.00	149008
				203	Spanish in Conversation	This conversational class will intensively emphasize oral practice in the classroom through a wide variety of topics.	3.00	3.00	149009

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				204	Spanish thru Its Literature	To talk about literature is also to talk about history, culture, and experience. This course will attempt to explore the ways in which Latin American/Hispanic writers have made connections between literature and history, literature and culture, literature and experience. One of the objectives of this course is to provide students an opportunity to examine the social, historical, and culture context(s) in which Latin American/Hispanic literature is produced. That is, to open a space, a "contact zone," that will allow students to relate not only with the Spanish language but also with its literary production, its culture and its history.	3.00	3.00	149010
				207	Intro to Latin Amer Literature	An introductory survey of Latin Americas literary production with special attention to historical and social contexts. The course will include selected readings reflecting historical developments of Latin American literature from the Conquest to the ?Boom? to Testimonial Narrative. The selections to be read will include works by Colon, Guaman Poma de Ayala, Bartolome de las Casas, Gabriel Garcia Marquez, Elena Poniatowska, Laura Esquivel, Isabel Allende, Vargas Llosa, Cortazar, and Carmen Cecilia Suarez.	3.00	3.00	149011
		Basic Communication	ENG	107	College Writing I for NNS	This course integrates academic reading and writing and critical thinking for non-native speakers of English. Students practice different writing processes and rhetorical strategies in order to write essays that are purposeful, thoughtful, and coherent, and that conform to the conventions of standard written English. They practice vocabulary-building techniques and review grammatical structures needed for effective communication. They understand writing as a social and collaborative process.Prerequisite-CorequisitePrerequisites: ENG 106 English as a Second Language Intermediate II, SPK 106 English as a Second Language Speaking & Listening 4Credits: 3Hours3 Class Hours (equivalent to ENG 110 for International Students)Course ProfileCourse Objectives:1. To introduce advanced ESL students to college writing, with a focus on essay writing, process writin, and American writing conventions.2. To provide students with practice in writing four rhetorical types of essays: process, cause/effect, comparison/contrast, and argumentative.3. To introduce students to the basics of writing with sources: paraphrasing, summarizing, and citing quotations.4. To imporove students' grammar and mechanic skills in writing activities, enabling them to use more sophisticated sentence structure and avoid common sentence errors (such as fragments, run-ons, and commas splices).Learning Outcomes of the Course:Upon successful completion of this	3.00	3.00	148474

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				108	College Writing II for NNS	This course, designed for non-native speakers of English at an advanced level of proficiency in written English, focuses on sophisticated analysis and evaluations of texts and on the writing of essays that expand and refine thinking about issues and ideas from across the disciplines. Students analyze and evaluate ideas and information from a variety of sources, including electronic database and networks. They acquire the skills to choose the appropriate rhetorical stance for different ideas, purposes, and audiences, and produce thesis-centered essays as a result of synthesizing multiple positions on global issues.Prerequisite- CorequisitePrerequisites: ENG 107 College Writing I for Non-Native Speakers of EnglishCredits: 3Hours3 Class Hours (equivalent to ENG 111 for International Students)Course ProfileCourse Objectives:1. To provide ESL College students with practice in writing research essays, process writing, and American writing conventions.2. To provide students with practice in writing various rhetorical types of essays and/or combination of them: process, cause/effect, comparison/contrast, and argumentative.3. To provide students with practice in writing with sources: paraphrasing, summarizing, synthesizing, and citing and documenting quotations.4. To refine and sharpen students' grammar and mechanic skills in writing activities, enabling them to use more sophisticated sentence structure and avoid common sentence errors (such as fragments, run-ons, and commas	3.00	3.00	148475
				110	College Writing I	Students learn to use writing to develop their thinking and to read texts critically for both form and content. They practice different writing processes and rhetorical strategies in order to write essays that are purposeful, thoughtful, and coherent, and that conform to the conventions of standard written English. They understand writing as a social and collaborative process, both as a mode of individual expression and as a rhetorical act.Learning Outcomes of the Course:1. Students will write reflectively about their observations and experiences. 2. Students will engage in reading as a dialogic activity.3. Students will use information and ideas from texts to support a thesis, implicit or explicit; students will represent borrowed information and ideas accurately.4. Students will evaluate sources for relevance and appropriateness.5. Students will engage in writing as a dialogic activity. 6. Students will write in Standard Written American English, using diction appropriate to a college-level audience	3.00	3.00	148476

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID
				111	College Writing II	Students produce sophisticated analyses and evaluations of texts and write essays that expand and refine their thinking about important ideas and issues. They analyze and evaluate ideas and information from a variety of sources, including electronic databases and networks, providing appropriate documentation. Students extend their writing maturity by learning to choose an appropriate rhetorical stance for different ideas, purposes, and audiences, and to assert an original thesis as a product of synthesizing ideas from multiple perspectives. Learning Outcomes of the Course:1.Students will write critically about their reading and academic research.2. Students will demonstrate dialogic reading strategies.3. Students will locate, evaluate, and document (using MLA style) relevant and appropriate sources.4. Students will effectively synthesize information from multiple texts.5. Students will develop logical arguments with clear rhetorical purpose.6. Students will write in Standard Written American English, demonstrating competency in composing a variety of complex sentence structures and styles while using varied and sophisticated vocabulary.	3.00	3.00	148477
				150	Technical Writing	This introductory course in technical communication offers a practical approach for writing and speaking effectively in professional, technical environments. The course emphasizes analytical methods for understanding and fulfilling the communicational needs of one's audience and gives students opportunity to practice and apply these communication techniques.	3.00	3.00	148478
			SPK	110	Effective Speaking	Principles and practices of public speaking. Students will present extemporaneous and prepared speeches. They will research, write, revise and deliver speeches, paying attention to audience, organization, technology, development, delivery, critical listening, and constructive evaluation. Credits: 3 Hours 3 Class Hours Course Profile Learning Outcomes of the Course: Upon successful completion of this course the student will be able to: 1. Feel more comfortable and confident in public speaking situations. 2. Build, practice, and deliver speeches with content and organization appropriate for the allotted time, intended audience, specific purpose, and given setting. 3. Deliver a variety of speeches, including informative, persuasive, inspirational, entertaining, and impromptu. 4. Develop the ability to use language clearly, accurately, concisely and appropriately, and to make effective use of body language, eye contact, vocal variety, diction, and visual aids (including PowerPoint) in public speaking. 5. Develop their research and writing skills to effectively enhance their public speaking skills. 6. Become better listeners and develop the ability to provide and receive constructive feedback.	3.00	3.00	149013

Campus Type	Campus Name	GenEd Category	Discipline	Course Number	Course Title	Course Description	Credits Min	Credits Max	SUNY Course ID

Rows 1 - 307 (All Rows)

Campus Name is equal to
and Approved Course Status is equal to **Active** , **Inactive**
and GenEd Request Status is equal to / is in **Approved**
and Campus Type is equal to **Community Colleges**

Appendix E. SUNY BROOME

COMMUNITY COLLEGE GENERAL

EDUCATION ASSESSMENT PLAN

2015-2019

Overview

This document describes a General Education Assessment Plan that:

Meets SUNY and Middle States General Education assessment requirements;

1. Describes how courses we have designated as meeting the SUNY General Education Requirement (SUNY-GER) meet our SUNY-BCC Institutional Learning Outcomes, and describes how courses we have designated as meeting the SUNY General Education Requirement (SUNY-GER) meet the designated SUNY-GER Outcomes;
2. Describes how SUNY Broome meets the two SUNY-GER Infused Competencies: Information Management and Critical Thinking;
3. Lays out a schedule for the periodic assessment of these SUNY-GER Knowledge and Skill courses, and the SUNY-GER Infused Competencies;
4. Provides an assessment process by which the overall success of the SUNY Broome General Education Curriculum might be improved or maintained;
5. Describes how General Education goals and ideals, as expressed in our Institutional Learning Outcomes, are embodied in our long-standing extracurricular activities and traditions, such as Convocation.

Our College strives to provide our students with strong written and oral communication skills, as well as an exceptional grounding in English, mathematical, scientific, civic, and historical literacy. We believe that SUNY-BCC graduates are well-prepared to succeed, whether they choose to continue their education or enter the 21st century workforce. SUNY Broome graduates, moreover, are committed to their community, and to actively participating as engaged citizens in diverse areas of public life.

To be clear, this document specifically focuses upon the assessment of courses designated as SUNY-GER courses, within the context of the College's AA and AS programs. Other College programs assess shared faculty and institutional student learning goals through the process of SUNY Program Review; such assessments are conducted according to the SUNY Broome Institutional Learning Outcomes, as well as Middle States and State Education Department requirements. SUNY Program Review documents are maintained by the Office of Institutional Effectiveness: contact the Dean of Institutional Effectiveness, Dr. Sesime Adanu, at adanusk@sunybroome.edu.

1. MSCHE Accreditation and SUNY System (SUNY-GER) Requirements. According to the Middle States Commission on Higher Education, SUNY Broome Community College, is an institution that "offers undergraduate education," and is required to design and implement a General Education Curriculum 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 well-reasoned 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.

The SUNY Trustees Resolution document 2010-006 defines "General Education" as:

> An undergraduate curriculum of broad, high-quality courses that provides students with a set of non-specialized, coherent and focused educational experiences aimed at enabling them to acquire knowledge and skills that are useful and important for all educated persons regardless of their jobs or professions.

Both SUNY and Middle States require that the College's General Education Curriculum be regularly assessed in order to demonstrate rigor and quality. As the SUNY document on Assessment Procedure states:

> Each campus with one or more general education curricula shall develop and implement a plan for the periodic evaluation of these curricula that meets or exceeds the standards of the Middle States Commission on Higher Education. At minimum, the plan shall indicate how the campus will assess student achievement of the student learning outcomes associated with the SUNY General Education Requirement and use the results to inform planning for improvement….

The student learning outcomes are in the Guidelines for the Approval of State University General Education Requirement Courses.

2. SUNY Broome Course/ SUNY-GER Area/ SUNY Broome ILO Outcomes Alignment and Assessment. For each SUNY-GER General Education Knowledge and area, relevant courses offered by SUNY Broome are identified. The list of SUNY Broome courses meeting SUNY-GER requirements for each of these areas may be found at the website maintained by the office of the SUNY Provost and in **Appendix A** of this document.

The student learning outcomes for each of the Knowledge and Skills Areas and Competencies identified by the Board of Trustees of the State University of New York are comprehensive. They encompass those outcomes that are continually being articulated by the College's General Education faculty across the disciplines as they engage an outcomes approach to teaching and learning.

The College's Student Learning Assessment Committee has constructed Gen Ed Assessment Plan Forms (**See Appendix B**) that:

1. Provide a faculty-determined schedule of assessments for each SUNY Broome Knowledge and Skill Area;
2. Show the linkages between faculty-generated student learning outcomes and the SUNY-GER outcomes;
3. Show the linkages between the SUNY-GER outcomes for each area and the SUNY Broome ILOs.

The overall SUNY Broome General Education Curriculum Assessment Cycle will run from the Fall of 2015 to the Spring of 2019. In the Spring of 2019, a joint committee of the Student Learning Assessment Committee and the General Education Committee will be formed.

This joint committee will assess the overall State of the SUNY General Education Curriculum according to the rubric laid out in Part 5 of this document, and will be based on a review of Gen Ed Assessment Plan Forms and the SLAC Student Learning Assessment Forms (See **Appendix C**). Their report shall be entitled the Report on the State of the SUNY Broome General Education Curriculum.

This report will be forwarded to the GEC and SLAC Committees, and then by SLAC to the Council for Academic Issues. A system of cross-campus dissemination of this Report will be devised in order to ensure maximal faculty knowledge and approval of the Report's conclusions and recommendations. Upon the endorsement of the Report by the GEC and the CAI, the Report will be forwarded to the Chief Academic Officer. The Chief Academic Officer will respond to the Report, and will charge the GEC, SLAC, and CAI with the development of a renewed General Education Curriculum policy and a corresponding Assessment Plan.

3. SUNY-GER Competencies: Critical Thinking and Information Management. SUNY mandates that the College include in its General Education Curriculum the assessment of two "Infused Competencies": Information Management and Critical Thinking. According to the Guidelines for the Approval of State University General Education Requirement Courses:

> The following two competencies should be infused throughout the General Education program:
>
> 1. CRITICAL THINKING (REASONING)
>
> Students will:
>
> 1. identify, analyze, and evaluate arguments as they occur in their own or others' work; and
> 2. develop well-reasoned arguments.
>
> 2. INFORMATION MANAGEMENT
>
> Students will:
>
> 1. perform the basic operations of personal computer use;
> 2. understand and use basic research techniques; and
> 3. locate, evaluate and synthesize information from a variety of sources.
>
> The Critical Thinking and Information Management competencies are not necessarily associated with any one course, though either or both of them could be imparted in specific "Critical Thinking" or "Information Management" courses. In either case, campus submissions must demonstrate that the learning outcomes are accomplished in the overall undergraduate curriculum.

Critical Thinking Assessment. Faculty responsible for AA and AS programs that require the capstone course ENG 220 may choose to locate the assessment of the SUNY Critical Thinking Outcomes in that

course. It is understood that ENG 220 is not intended as the sole location of Critical Thinking student learning, but instead, as a capstone course, may be used as a location where an assessment of the SUNY outcomes in this competency may be assessed. Critical Thinking assessment in ENG 220 will be carried out using the SUNY Outcomes and the assessment rubric developed by cross-SUNY faculty (see Appendix D).

Faculty responsible for AA and AS programs that do not require ENG 220, or faculty in AA or AS programs that require ENG 220 but choose to apply their own assessment, should devise an assessment of Critical Thinking as infused in that program that uses the SUNY Outcomes and Rubrics.

Information Management Assessment. Information Management assessment will be carried out through the use of online Instructional Modules developed to meet each of the three SUNY Information Management Outcomes.

Each Instructional Module will contain a tutorial and a quiz. Starting in the Spring of 2016, the Distance Learning Representative of the SLAC Committee, or else a member of the Teaching Resource Center, will compile an annual report of the number of students who took each Module during the academic year, and the number of attempts it took for students to achieve a satisfactory result. This report will be forwarded to the SLAC Chair and the Dean of Institutional Effectiveness.

The Instructional Modules for Outcomes 1 and 2 will be located in the College Success courses of various programs. The Instructional Modules for Outcome 3 will be developed by faculty and offered in various select courses across the curriculum.

4. General Education Assessment Schedule. The chart below offers an overview of scheduled assignments for each Knowledge and Skill Area and Infused Competency.

5. Assessing General Education. The Report on the State of the SUNY Broome General Education Curriculum shall assess the success of the curriculum over the course of the Assessment Cycle by examining the SLAC Student Learning Assessment Forms and other relevant evidence (Including Unit Assessment Forms). The committee members will address these points:

The SUNY Broome General Education Curriculum:

1. Is owned and assessed by faculty;
2. Is understood by students;
3. Is understood by faculty and staff across the campus;
4. Offers a sufficient scope to draw students into new areas of intellectual experience;
5. Expands students' cultural and global awareness and cultural sensitivity;
6. Prepares them to make well-reasoned judgments outside as well as within their academic field;
7. Is designed so that students acquire and demonstrate written communication skills;
8. Is designed so that students acquire and demonstrate scientific reasoning;
9. Is designed so that students acquire and demonstrate quantitative reasoning;
10. Is designed so that students acquire and demonstrate critical analysis and reasoning;
11. Is designed so that students acquire and demonstrate technological competency and information literacy;

12. Includes the study of values, ethics, and diverse perspectives;
13. Offers opportunities for students to experience coherent and purposeful General Education learning experiences outside as well as inside the classroom.

5. Extracurricular Traditions and Experiences.

APPENDIX E 1. SUNY Broome Courses meeting SUNY-GER requirements (See Appendix D).

APPENDIX E 2. Gen Ed Assessment Plan Forms.

APPENDIX E 3. SLAC Assessment Forms.

APPENDIX E 4. Critical Thinking Rubric.

Appendix E2. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title:

SUNY-GER Category:

Submitted by (Date):

Assessment Schedule:
Please provide the semester and year of the initial assessment and the frequency that the Gen Ed assessment will occur after. If you plan to assess different outcomes in different semesters, please provide that information in the table below.

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.

4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix E3. Student Learning Assessment Form

Part I

Department Name:

Name or names of the person or persons to address questions:

What course(s) do you plan to assess this academic year?

In what semester will this assessment take place?

Fall 20…

Winter…..

Spring…

Summer….

What course-level Student Learning Outcome (or Outcomes) do you plan to assess?

What kind of student-produced work will you use to measure a student's ability to meet this course-level Learning Outcome? (Eg. Exams or quiz, class project, oral report or exam, portfolio of student work etc)

What criteria will you use to determine if a particular student has exceeded, met, almost met, or not even partially met the course-level Student Learning Outcome you have selected to assess?

On what basis will you conclude that students as a whole, and over time, are successfully meeting or failing to meet this course-level Student Learning Outcome? (benchmarks).

What resources might the College provide to assist you in carrying out this assessment?

Is the course or courses you will assess listed as meeting a SUNY General Education category? If so, please identify the category or categories it meets.

Please identify the SUNY Broome Institutional Learning Outcome or Outcomes most closely related to the Course-level Learning Outcome you have chosen to assess. SUNY Broome Community College graduates will:

Part II

Student work used in assessment:

Number of artifacts assessed & explanation of sample (if used):

Measurement of Success:

Results:

Comparison with previous assessments:

Process to maintain and/or improve student success:

College Resources requested for implementation of recommendations:

Next assessment cycle for this/these course(s):

Online/Fast Forward Assessment Information:

Additional Information:

Appendix E4. SUNY Critical Thinking Rubric

The SUNY Trustees learning outcomes for critical thinking focus on arguments but offer little guidance as to their nature or variety. We conceive of an argument as any piece of reasoning aimed at deciding what to believe or what to do. On this conception, we are engaged in argument whenever we try to decide what we ought to think about some topic, whether the topic concerns the past, the present or the future, and whenever we try to decide how best to achieve some practical goal. Arguments thus include designing an experiment to test an hypothesis, deciding how best to measure some phenomena, defending a view about the nature and value of free will, explaining the causes of some historical event, predicting the outcome of some physical process, evaluating a performance or work of art, and balancing the costs and benefits of some public policy. These otherwise very different activities are unified by the fact that doing them well requires thinking critically both about the subject matter at hand and about the decision process itself. We designed our rubric to capture at an abstract level what these decisions have in common when they are all well made.

The word "argument" in the rubric is thus to be understood as applying to a wide variety of different kinds of activities aimed at deciding what to believe or to do. The word "premise" applies to the evidence or grounds on which a decision or recommendation is based. Thus, the results of an experiment or measurement may be the premises for a scientific conclusion or a policy recommendation, knowledge of initial conditions and laws of nature may be the premises for a prediction, and an evaluation of a dance may be premised on aesthetic criteria. In all such cases, thinking critically requires distinguishing the question whether those premises are correct or credible from the question whether they provide sufficient support to accept the conclusion.

The rubric does not attempt to define when the premises of an argument are "acceptable" or when they provide "sufficient" evidence to support the conclusion. This is a notoriously difficult task, especially since standards of acceptability and sufficiency seem to vary from one discipline to another and from one historical period to another. While it is important for students to be aware of the ideal of a logically valid argument, where the truth of the premises would guarantee that of the conclusion, this ideal provides little practical guidance in ordinary life.

The first learning outcome concerns a student's critique of some argument and the second concerns a student's attempt to develop one. In both, the word "argument" is meant to include any kind of reasoning aimed at deciding what to believe or do. Thus, the student's critique may target some specific policy recommendation or some historical explanation, and the argument developed may be a proposal to test some hypothesis or a defense of some philosophical view. In principle, one piece of work would suffice so long as it required the student to both critique an argument and construct an argument. But a portfolio including one piece of work analyzing and evaluating an argument and another supporting and defending some conclusion would perhaps be more practical.

1. Students will identify, analyze, and evaluate arguments as they occur in their own and others' work.

Exceeding: The student's work

1. Identifies the target argument(s) and clearly distinguishes it from any extraneous elements such as expressions of opinion and descriptions of events.
2. Carefully articulates the argument's conclusion, clearly distinguishes it from its premises and identifies most relevant definitions and/or hidden assumptions.
3. Clearly and correctly assesses whether the argument's premises provide sufficient logical support for the conclusion, independently of whether the premises are true.
4. Clearly and correctly assesses the reasonableness of the premises, including the credibility of their sources (e.g., observation, testimony, measurement, experiment, etc.), independently of whether the premises support the conclusion.

Meeting: The student's work

1. Identifies the target argument(s).
2. Distinguishes the argument's conclusion from its premises and some effort is made to identify relevant definitions and/or hidden assumptions.
3. Correctly assesses whether the argument's premises provide sufficient logical support for the conclusion, independently of whether the premises are true.
4. Correctly assesses the reasonableness of the premises, including the credibility of their sources, independently of whether they support the conclusion.

Approaching: The student's work

1. Identifies the target argument(s) but includes extraneous elements such as expressions of opinion and descriptions of events.
2. Distinguishes the argument's conclusion from its premises, but little effort is made to identify relevant definitions and/or hidden assumptions.
3. Attempts to assess whether the argument's premises provide sufficient logical support for the conclusion, independently of whether the premises are true.
4. Attempts to assess the reasonableness of the argument's premises, but little effort is made to consider the credibility of the premises' sources.

Not Meeting: The student's work

1. Does not isolate the argument(s) from extraneous elements in the text.
2. Does not identify the argument's conclusion or distinguish it sufficiently from the premises and little or no effort is made to identify relevant definitions or hidden assumptions.
3. Does not address whether the argument's premises provide sufficient logical support for the conclusion, independently of the truth of the conclusion.

4. Does not consider whether the premises are reasonable to believe, independently of whether they support the conclusion or else no effort is made to evaluate the credibility of the premises' sources.

2. Students will develop well-reasoned arguments.

Exceeding: The student's work

1. Develops a clearly articulated argument, using evidence and/or systematic logical reasoning in support of a conclusion or point of view.
2. Identifies relevant qualifications or objections or alternative points of view and prioritizes evidence and/or reasons in support of the conclusion.
3. Describes the broader relevance, significance or context of the issue and/or applies the reasoning to a novel problem.

Meeting: The student's work

1. Presents an argument using evidence and /or logical reasoning in support of a point of view.
2. Identifies some qualifications or objections or alternative points of view.
3. Describes the broader relevance, significance of context and/or applies the reasoning to a novel problem.

Approaching: The student's work

1. States a conclusion or point of view but does not organize the evidence or reasons in a logically adequate way.
2. Does not clearly identify or respond to relevant objections or alternative points of view.
3. Does not adequately describe the broader relevance or significance or apply the reasoning to a novel problem.

Does not meet: The student's work

1. Does not clearly state a conclusion or point of view or else little or no supporting reasoning or evidence is presented.
2. Makes no attempt to recognize or respond to objections or alternative points of view.
3. Makes no attempt to describe the broader relevance or significance or to apply the reasoning to a novel problem.

Appendix F1. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: BUS 115: Business Statistics

SUNY-GER Category: Mathematics
Students will demonstrate the ability to:

1. interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics;
2. represent mathematical information symbolically, visually, numerically and verbally;
3. employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems;
4. estimate and check mathematical results for reasonableness; and
5. recognize the limits of mathematical and statistical methods.

Submitted by (Date):

Assessment Schedule:
Assessment Cycle:
1. 2015-2016
2. 2018-2019
3. 2021-2022

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success
1. Understand the uses and potential misuses of statistical calculations and procedures in business applications.	5	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
2. Calculate measures of central tendency and dispersion, and understand their use in business applications.	1, 3	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
3. Recognize common statistical symbols.	2	2, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		

4. Calculate basic probabilities. Understand related terminology and applications.	1, 2	1, 2, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
5. Calculate normal and binomial probabilities and understand how to use them in business applications.	1, 3	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
6. Understand sampling theory, applications, and procedures.	1, 4	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
7. Calculate interval estimates for large and small samples and proportions, as well as understand how the estimates are used in applications in business and economics.	1, 3, 5	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
8. Perform the calculations necessary to do one or two tailed hypothesis tests for large and small samples and proportions, and understand the application of these to problems in business and economics.	1, 3, 5	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
9. Perform the calculations necessary to estimate sample size for various sampling situations.	3	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
10. Perform regression and correlation calculations, and understand the application of these to problems in business and economics.	1, 3, 5	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		
11. Be proficient in the use of Excel or other software to perform various statistical calculations, including those for descriptive statistics, probabilities, and single/multiple regression and correlation.	1	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		

12. Demonstrate critical thinking skills in the recognition and solution of business problems using statistical methods and procedures.	1, 4	1, 3, 7	1. 2015-2016 2. 2018-2019 3. 2021-2022		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix F2. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: THR 109: Practicum Theatre

SUNY-GER Category:
The Arts
Students will demonstrate:
1. understanding of at least one principal form of artistic expression and the creative process inherent therein.

Submitted by (Date):

Assessment Schedule:
Assessment Schedule:
1. 2017-2018
2. 2020-2021
3. 2023-2024

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark
1. Define the various collaborative roles necessary to produce a play.	1	2	1. 2017-2018 2. 2020-2021 3. 2023-2024		
2. Demonstrate increased knowledge of the carrying through of technical production projects including organization, deadlines, etc.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
3. Write about and discuss the terminology used in theatrical production.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		

4. Demonstrate a specific collaborative skill in the design, technical or management area of theater.	1	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix F3. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: BIO 115: Ecology of the National Parks

SUNY-GER Category:
Natural Sciences
Students will demonstrate:
1. Understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis; and
2. Application of scientific data, concepts, and models in one of the natural (or physical) sciences.

Submitted by (Date):

Assessment Schedule:
Assessment Cycle:
1. 2018-2019
2. 2021-2022
3. 2024-2025

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark
1. Discuss the history of the National Parks System in the United States.		3	1. 2018-2019 2. 2021-2022 3. 2024-2025		
2. Discuss the ecological relationships involved in several of the major National Parks in the United States.	1	5	1. 2018-2019 2. 2021-2022 3. 2024-2025		
3. Discuss the political, social, and ecological issues facing the National Parks.	2	1	1. 2018-2019 2. 2021-2022 3. 2024-2025		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix F4. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: CHM 123: Environmental Science

SUNY-GER Category:
Natural Sciences
Students will demonstrate:
1. Understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis; and
2. Application of scientific data, concepts, and models in one of the natural (or physical) sciences.

Submitted by (Date):

Assessment Schedule:
Assessment Cycle:
1. 2017-2018
2. 2020-2021
3. 2023-2024

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark
1. Discuss EPA primary and secondary water quality standards.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
2. Discuss EPA Environmental Regulations including the clean air act, clean water act, RCRA, CERLCA, NPDES, SPDES.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
3. Discuss and determine the dissolved oxygen content, nitrate, nitrite, BOD, COD, phosphate, turbidity, pH, alkalinity, hardness, total coliform bacteria, E. Coli,	1	3, 5	1. 2017-2018 2. 2020-2021 3. 2023-2024		

total and residual chlorine and their effect on an ecosystem.					
4. Discuss primary production and trophic levels.	1	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
5. Discuss the Coriolis effect, orographic lifting, and the rain forest.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
6. Discuss sustainable agriculture, the green revolution and organic farming.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
7. Discuss fossil fuels, nuclear power, and alternative energy.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
8. Discuss the Chesapeake Bay and Liebig's Law of minimums.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
9. Discuss air pollution, inversion layers, and the six criteria pollutants.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
10. Discuss biotic potential, R and K strategists, demographics, and the total fertility rate.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
11. Produce biodiesel from vegetable oil.	1	5	1. 2017-2018 2. 2020-2021 3. 2023-2024		
12. Discuss and demonstrate how the angle of the sun at noon varies during the year and how this is used in the design of passive	2	3, 5	1. 2017-2018 2. 2020-2021 3. 2023-2024		

solar heating and cooling of houses and commercial buildings.					
13. Discuss and demonstrate the use of clerestories in passive solar heating and cooling of houses and commercial buildings.	2	3, 5	1. 2017-2018 2. 2020-2021 3. 2023-2024		
14. Discuss and demonstrate the use of trombe walls in passive solar heating and cooling of houses and commercial buildings.	2	3, 5	1. 2017-2018 2. 2020-2021 3. 2023-2024		
15. Discuss and demonstrate the use of window overhangs in passive solar heating and cooling of houses and commercial buildings.	2	3,5	1. 2017-2018 2. 2020-2021 3. 2023-2024		
16. Discuss the environmental advantages and externalities of wind, hydroelectric, geothermal, solar passive, solar active, solar thermal (SEGS & Solar II), photovoltaic, hydrogen, fuel cell, and battery energy sources.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
17. Discuss the role of greenhouse gases in global climate.	2	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
18. Discuss and demonstrate the use of a NEV as a zero emission vehicle and calculate the carbon footprint of an equivalent gasoline vehicle.	2	3,5	1. 2017-2018 2. 2020-2021 3. 2023-2024		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.

5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix F5. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: MAT 127: Mathematical Literacy II

SUNY-GER Category: Mathematics
Students will demonstrate the ability to:

1. interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics;
2. represent mathematical information symbolically, visually, numerically and verbally;
3. employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems;
4. estimate and check mathematical results for reasonableness; and
5. recognize the limits of mathematical and statistical methods.

Submitted by (Date):

Assessment Schedule:
Assessment Cycle:

1. Spring 2020
2. Spring 2022
3. Spring 2024

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark
1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics.	1	1, 3, 7	1. Spring 2020 2. Spring 2022 3. Spring 2024		
2. Represent mathematical information symbolically, visually, numerically and verbally.	2	2, 3, 7	1. Spring 2020 2. Spring 2022 3. Spring 2024		
4. Employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems.	3	1, 3, 7	1. Spring 2020 2. Spring 2022 3. Spring 2024		

4. Estimate and check mathematical results for reasonableness.	4	1, 3, 7	1. Fall 2019 2. Fall 2021 3. Fall 2023		
4. Recognize the limitations of mathematical and statistical methods.	5	1, 3, 7	1. Fall 2019 2. Fall 2021 3. Fall 2023		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix F6. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: LIT 210: Studies in United States Literature I
Humanities

Students will demonstrate:

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

Submitted by (Date):

Assessment Schedule:
Assessment Schedule:

1. 2017-2018
2. 2020-2021
3. 2023-2024

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark
1. Have improved their ability at oral discourse by discussing and explaining their interpretive responses.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
2. Have improved their ability to write analytically and argumentatively by composing applications of critical methods to literary works.	1	7	1. 2017-2018 2. 2020-2021 3. 2023-2024		
3. Identify literary devices and define them.	1	3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
4. Use specific details to support a claim about a text.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		

5. Express their interpretation of a work in clear expository prose.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
6. Utilize various literary analysis approaches toward literature.	1	1	1. 2017-2018 2. 2020-2021 3. 2023-2024		
7. Express multiple viewpoints about the life questions dealt with in literature (even if they disagree with those viewpoints.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		
8. Relate one literary work to another, and also to the culture from which it emerged.	1	2	1. 2017-2018 2. 2020-2021 3. 2023-2024		
9. Learn and demonstrate competence in basic principles and techniques of literary research, using print as well as electronic sources.		3	1. 2017-2018 2. 2020-2021 3. 2023-2024		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix F7. SUNY Broome General Education Course Assessment Map & Plan
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs

Course Number & Title: PSY 211: Child Development

SUNY-GER Category:
Social Sciences
Students will demonstrate:

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

Submitted by (Date):

Assessment Schedule:
Assessment Schedule:

1. 2018-2019
2. 2021-2022
3. 2024-2025

Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs

Course SLO	SUNY-GER SLO	SUNY BCC ILO	Assessment Timeline	Learning Activity	Criteria for Success/Benchmark
1. Demonstrate an understanding of the psychological theories and models of child development.	2	3	1. 2018-2019 2. 2021-2022 3. 2024-2025		
2. Demonstrate an understanding of the role of biological, psychological, cognitive and social processes in child development.	2	3	1. 2018-2019 2. 2021-2022 3. 2024-2025		
3. Demonstrate an understanding of the research methods and ethical considerations appropriate for the study of child development.	1	3	1. 2018-2019 2. 2021-2022 3. 2024-2025		

4. Critically evaluate empirical evidence concerning child development.	1	5	1. 2018-2019 2. 2021-2022 3. 2024-2025		
5. Apply child development concepts to further the development and welfare of children in real-world settings.	2	1	1. 2018-2019 2. 2021-2022 3. 2024-2025		

SUNY Broome ILOs (Institutional Learning Outcomes)

1. (ILO 1) Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. (ILO 2) Read, write, speak, and listen effectively in both personal and professional spheres.
3. (ILO 3) Retrieve, organize, analyze, evaluate, and appropriately use information.
4. (ILO 4) Perform effectively as a team member.
5. (ILO 5) Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. (ILO 6) Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. (ILO 7) Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

Appendix G1. Mathematics

Student Learning Assessment Results 2015-2016 – Part II

Department: Business Department

Name or names of the person or persons to address questions:

rick behr

Assessment Changes from Planning Form

no

Course(s) the department plans to assess in the 2015-2016 academic year:

bus 115

Semester assessment will take place:

Fall 2015

Course-level Student Learning Outcome(s) the department plans to assess:

Learning objectives 3,5,6,7,8, and 12.

Student work used in assessment:

These were multiple exam questions

Number of artifacts assessed & explanation of sample (if used)

Exam questions on point/interval estimation, hypothesis testing, and uniform distribution. All included calculation and interpretation.

Measurement of Success

Score sheets from "Standards and Rubrics for Assessing General Education in Mathematics" Written by the discipline panel in mathematics, 09/08/05. Scoring was based on these standards.

Results

Using the learning outcomes(lo) from the discipline table: hypothesis testing, for learning outcome #1, 59% were completely correct, generally correct 6%, partially correct 24%, and incorrect 8%. LO #2, 38%, 27%, 28%, 7%. LO#3 73%, 7%, 10%, 10%. LO #4 69%. 6%, 8%, 17%. LO #5 69%, 6%, 4%, 21%.

For the uniform distribution materials, LO#1 87%, 2%, 9%, 12%. LO#2 52%, 0%, 13%, 5%. LO#3 95%, 2%, 3%, 0%. LO#4 95%, 2%, 0%, 3%. LO#5 90%, 0%, 0%, 10%. For the estimation materials, LO#1 45%, 8%, 38%, 9%. LO#2 54%, 19%, 23%, 1%. LO#3 54%, 19%, 23%, 4%. LO#4 63%, 3%, 0%, 12%. LO#5 77%, 0%, 1%J, 22%.

Overall, our results for this year are improved. Last year, we identified interpretation as a weak point. We worked on this, and were significantly better this year. There is still some room for improvement. As an objective for next year, we will try to improve student success for estimation. While the students did reasonably well, we feel they could do better.

Comparison with previous assessments

See above.

Process to maintain and/or improve student success

Keep testing the same, work more on estimation.

College Resources requested for implementation of recommendations:

na

Next assessment cycle for this/these course(s)

This course again next fall.

Online/Fast Forward Assessment Information

Additional Information:

Appendix G2. Student Learning Assessment Results 2015-2016 – Part II

Department: Music

Name or names of the person or persons to address questions:

Brenda Dawe

Assessment Changes from Planning Form

No

Course(s) the department plans to assess in the 2015-2016 academic year:

MUS 108

Semester assessment will take place:

Spring 2016

Course-level Student Learning Outcome(s) the department plans to assess:

Demonstrate the ability to apply that knowledge to any composition heard for the first time.

Student work used in assessment:

A separate Listening test featuring 2 contrasting pieces of music from each of the four style periods the course includes, requiring the students to identify its period and give reasons based on its sound.

Number of artifacts assessed & explanation of sample (if used)

All students in the class.

Measurement of Success

Those accurately identifying the style of 7 or 8 of the eight selections were considered to have exceeded , 4 or fewer to have failed to meet, and 5 or 6 to have met expectations. All correct conclusions also needed to be built on accurate observations.

Results

Of the 15 students 6 exceeded, 6 met, and 3 failed to meet expectations. Within each category there was quite a range of justifications-in number and in specificity and accuracy. In the next assessment of this course I will devise a more precise task for the students and a more accurate formula for analysis.

Comparison with previous assessments

This is the first assessment for this class.

Process to maintain and/or improve student success

Continue to stress the big picture, i.e. always remind the class what the precedents are for all new music and styles

College Resources requested for implementation of recommendations:

nothing needed

Next assessment cycle for this/these course(s)

3 years

Online/Fast Forward Assessment Information

This has no online component.

Additional Information:

I will consider using even more musical examples to get an even better set of data. I will also next time specify that students must give at least 3 reasons for their conclusion. The variability of responses in this regard made quantifying the results more difficult.

Appendix G3. Student Learning Assessment Results 2015-2016 – Part II

Department: Mathematics

Name or names of the person or persons to address questions:

Timmy Bremer

Assessment Changes from Planning Form

No

Course(s) the department plans to assess in the 2015-2016 academic year:

MAT 130, 136, 146, 156, 160, 181, 182

Semester assessment will take place:

Spring 2016

Course-level Student Learning Outcome(s) the department plans to assess:

Gen Ed Outcome 1: Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics.

Gen Ed Outcome 2: Represent mathematical information visually, symbolically, numerically and verbally.

Gen Ed Outcome 3: Employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems.

Student work used in assessment:

Assessments consisted of questions on a quiz. These were completed around week 10.

Number of artifacts assessed & explanation of sample (if used)

For each section, every student completed the assessment, then a random sample of 20% of those were evaluated.

Measurement of Success

A rubric for each question was established to determine what qualified as Completely Correct, Generally Correct, Partially Correct, or Incorrect.

Results

Goal is >=60% Completely Correct or Generally Correct

Outcome 1: 57.6% CC or GC

Outcome 2: 64.4% CC or GC

Outcome 3: 72.6% CC or GC

For these outcomes, we are meeting or nearly meeting our goal.

Comparison with previous assessments

Together with our Spring 2015 assessment, we now have benchmarks for all of our Gen Ed math courses. Due to the disjoint sets of courses assessed, the results are not directly comparable. Combining the two sets, we are meeting our objective of >=60% in th

Process to maintain and/or improve student success

These results are shared with the Mathematics Department faculty at the beginning of the next semester. We have implemented a rolling schedule of assessment, so nearly all faculty are involved at some point during each academic year. This helps everyone stay focused on our students' success.

College Resources requested for implementation of recommendations:

It is difficult to motivate many of our adjuncts to participate fully in the process. Having more full-time faculty would mitigate the impact this has on student learning.

Next assessment cycle for this/these course(s)

This particular combination of courses and outcomes will next be assessed in Spring 2018.

Online/Fast Forward Assessment Information

Online and Fast Forward course sections were included and completed the same assessments. Performance was comparable top on-campus sections.

Additional Information:

Appendix G4. Basic Communication

Student Learning Assessment Results 2015-2016 – Part II

Department: English

Name or names of the person or persons to address questions:

Mary Seel

Assessment Changes from Planning Form

No.

Course(s) the department plans to assess in the 2015-2016 academic year:

ENG 110S

Semester assessment will take place:

Fall 2015

Course-level Student Learning Outcome(s) the department plans to assess:

4. Evaluate sources for relevance and appropriateness.

6. Write in Standard Written American English, using diction appropriate to a college-level audience.

Student work used in assessment:

We assessed student essays written about three quarters of the way through the term.

Number of artifacts assessed & explanation of sample (if used)

We had 103 student essays turned in for assessment. They were anonymous with no student or instructor names or section numbers on the essays. Each essay was placed in a folder. The folders were numbered. We wanted a set of 20% of the total number of fol

Measurement of Success

We used two rubrics which were developed specifically for our department's assessment efforts. One was the rubric developed by our ENG 110 Assessment Committee for Outcome 6 when we assessed ENG 110 in May 2014. Our assessment committee wrote the rubric

Results

Results: (see above link to rubrics)

Outcome 4:

Rubric Score

#4 = 0

#3 = 2

#2 = 7

#1 = 7

#0 = 5 (Four of these were empty folders. One had an essay in it which used no sources.)

In past assessments in the department, we have calculated percentages for each rubric score by considering only actual student work, not including empty folders. When we remove the empty folders from consideration, that leaves us with 17 essays, and these are the percentages of how student essays measured up on Outcome 4:

#4 = 0%

#3 = 17%

#2 = 39%

#1 = 39%

#0 = 6% (This was the one essay that made no use of sources.)

(The four empty folders would be 19% of the total of 21 folders.)

Outcome 6:

Rubric Score

#4 = 0

#3 = 7

#2 = 7

#1 = 3

#0 = 4 (empty folders)

In past assessments in the department, we have calculated percentages for each rubric score by considering only actual student work, not including empty folders. When we remove the empty folders from consideration, that leaves us with 17 essays, and these are the percentages of how student essays measured up on Outcome 6:

4 = 0%

3 = 39%

2 = 39%

1 = 18%

(The four empty folders would be 19% of the total of 21 folders.)

We had better results for Outcome 6 which focuses on the mechanics of writing than we did for Outcome 4 which focuses on the use of sources in writing. 78% of students met or were approaching the standard for Outcome 6. 56% of students met or were approaching the standard for Outcome 4. This should be somewhat encouraging to us. At least our students in 110S are coming close to being able to write in Standard Written American English, the basis for everything else they do in writing. Their use of grammar, punctuation, and so on was stronger than was their ability to negotiate some of the larger issues addressed in Outcome 4. In fact 39% of the essays were rated with a rubric score of 1 for Outcome 4 which meant they were not meeting the standard. However, this is understandable given that the choice, evaluation, use, inclusion, and citation of sources may be new to these students and are complex tasks which require sophisticated skills to be able to do well. These students are learning. As one rater said, we cannot expect “sparklingly brilliant essays” from these students as evidenced by the fact that no essay in the sample set achieved a score of 4 on either outcome, but the students can be competent or can approach competence.

Comparison with previous assessments

ENG 110S is a new course, so we have no results from a previous assessment of ENG 110S with which to compare these assessment results. (Fall 2015 is the first semester that we offered ENG 110S as a credit bearing alternative to ENG 090.) However, we did d

Process to maintain and/or improve student success

We plan to continue work on assignment design. We want to develop an assignment bank for the department for all comp courses including ENG 110S. The assignments for 110S may need to be more prescriptive than in other courses. We will discuss the development and use of templates in 110S. (See Graff and Birkinstein's They Say, I Say, for example.) Our raters felt that using classroom group readings of drafts and essays as opposed to one-on-one peer review might be more helpful for ENG 110S students as they move through the writing process.

We need to inform ENG 111 instructors about ENG 110S students who will be moving into their classes so that they can be aware of the special needs these students may bring with them into ENG 111.

We discussed having a special advising component for 110S students to advise them into 111 sections taught by instructors who might be able to better help the students navigate the challenges of ENG 111. The other possibility is to set aside a few specific sections of ENG 111 just for 110S students. We will continue this discussion in the months ahead.

We also plan to develop a working group for ENG 110S instructors to meet each semester to discuss assignments, needs, struggles, ideas, insights, and these assessment results. We will also continue to work in English Department Professional Development Days sessions to improve our understanding of the needs, strengths, and weaknesses of all of our writing students, and especially our 110S students, so that we can improve our teaching and thus the retention and persistence of our students.

College Resources requested for implementation of recommendations:

1) We need release time for an English department faculty member to focus on assessment and professional development in the department.

2) We need more full time lines in the department. Because of an unfilled line, release time for College service, medical leave, and the demand for more and more sections of ENG 110S and ENG 110, the department is down up to five full time positions. That hurts our continuity, leads to the need for more adjuncts, and deprives the department and the college of what full time faculty could add, and this impacts retention.

3) The College needs to devote more resources to courses like ENG 110S, a "bread and butter" course, a "welcome to college" course, which focuses on skill development and provides an orientation to academic culture and expectations. One way the College can do this is by reducing the number of students in each section so that faculty can give each student more quality time and attention. Our professional organizations recommend that only 15 students should be in developmental writing courses like this. Ours are capped at 16, but are frequently overloaded. Fifteen students should be the absolute maximum ever allowed in an ENG110S section.

Next assessment cycle for this/these course(s)

Our tentative plan is next to assess ENG 111 in the spring of 2017. We will look at Outcome 4, which focuses on source use in writing, and one other outcome which we have not chosen yet. We will most likely assess ENG 110S again in 2018 or 2019 unless w

Online/Fast Forward Assessment Information

Additional Information:

Appendix G5. Student Learning Assessment Results 2015-2016 – Part II

Department: Chemistry

Name or names of the person or persons to address questions:

Joel K. Miller, General Chemistry Coordinator

Assessment Changes from Planning Form

No

Course(s) the department plans to assess in the 2015-2016 academic year:

CHM 145 & CHM 146, General Chemistry I and General Chemistry II

Semester assessment will take place:

Spring 2016

Course-level Student Learning Outcome(s) the department plans to assess:

We assessed all the learning outcomes listed in the catalog with a comprehensive exam for each assessed course. The outcomes are shown below.

CHM 145:

1. Understand the use of the Scientific Method and its importance in accessing experimental data.

2. Understand the method of factor labeling and its application of solving a variety of chemistry problems, especially mole relationships.

3. Understand the language of chemistry with regard to nomenclature, equation writing and stoichiometry.

4. Demonstrate the intricate nature of the elements by examining atomic structure, electronic configuration and formation of compounds through techniques such as spectroscopy.

5. Understand chemistry laws with their respective chemical equations to explore the gas laws, thermochemistry, atomic structure and bonding.

6. Develop a chemical aptitude to understand the importance of chemical structure of compounds with respect to bonding, intermolecular relationships and molecular geometry. This chemical awareness will be utilized to comprehend complex chemistry scenarios such as oxidation reduction systems; global climate change; pharmaceutical research; nanotechnology; energy transformations; and many other areas where chemistry helps individuals to explain the laws of nature.

CHM 146:

1. Manipulate the colligative properties to determine molality, molarity, mole fraction, % composition, osmotic pressure as well as molar masses of compounds.

2. Understand graphing techniques to ascertain the rate constants of chemical reactions; energy of activation, Ea; equilibrium constants, Kc; and acid-base dissocation constants, (Ka and Kb).

3. Understand advanced thermochemistry functions such as Enthalpy, H; Entropy, S; and Gibbs-Free Energy, G to determine feasibility of chemical reactions.

4. Understand oxidation reduction systems to illustrate the value of redox reactions such as combustion processes and their thermochemistry relationships with respect to energy generation.

5. Understand the value of natural logarithmic (ln functions) and logarithmic (log functions) in the determination of rate constants; understanding half-life for radioactive isotopes; and solution concentrations of specific analytes (i.e., pH measurements to determine hydrogen ion concentrations).

6. Understand electrochemistry as it pertains to electromotive force, Eo; oxidation reduction reactions; galvanic and electrochemical cells; battery construction; and fuel cell technology.

Student work used in assessment:

We assessed every question in a comprehensive final exam written by the American Chemical Society. Each question on the exam is multiple choice. This assessment occurred four times during the academic year, during the final week of the Fall and Spring Semester and on the last day of class for Summer Term I (2015) and Summer Term II (2015).

Number of artifacts assessed & explanation of sample (if used)

301 student ACS final exams were assessed. The sampling was not random; due to an instructor's unexpected medical leave, two sections of CHM 146 did not administer the ACS final. Otherwise, all other ACS final exam artifacts were assessed from the 2015

Measurement of Success

Each question on the exam tests different learning objectives and is either answered correctly or incorrectly so there are no different levels of success for each objective. At the course level each student's aggregate score on the exam can be compared t

Results

We considered each course to be successful if its overall mean is within one standard deviation of the national norm and we defined an "area of weakness" as a learning objective tested by a multiple choice question that at least 70% of the students answered incorrectly.

For CHM 145:

National Norm: 58.975%, STD: 17.325%

SUNY Broome Avg: 53.51%

Since the CHM 145 Avg is within one standard deviation of the national norm, this course is considered to be meeting it's goal.

Two areas of weakness were identified by this assessment:

-Gas Laws (relationship of temperature, pressure, and volume to the kinetic energy of a gas)

-Stoichiometry (limiting reagent situation when reaction goes to completion)

For CHM 146:

National Norm: 52.775%, STD: 16.95%

SUNY Broome Avg: 49.66%

Since the CHM 145 Avg is within one standard deviation of the national norm, this course is considered to be meeting it's goal.

Four Areas of weakness were identified by this assessment:

-Equilibrium (Le Châtelier's principle)

-Kinetics (connection between reaction mechanism and rate law)

-Electrochemistry (relative oxidative strength)

-Acid/Base Chemistry (Buffer preparation)

Comparison with previous assessments

The following table shows the mean score on the ACS final exam over five academic years. Overall performance shows consistency.

	CHM 145, %	CHM 146,%
2011-2012:	56.28	49.75
2012-2013:	63.56	50

Process to maintain and/or improve student success

The identified areas of weakness will be discussed during meetings of the general chemistry department. Each instructor will be encouraged to address these areas of weakness in their class section via the method of their choice.

College Resources requested for implementation of recommendations:

1) For on campus courses, hiring more full-time faculty should improve student success.

2)Resources will be needed to purchase more copies and administer the ACS final exam for Fast Forward sections of this course. Since the ACS exam is copyrighted and cannot be legally duplicated, providing copies to high schools with supervision creates a liability.

3)Consistently about 30% of student who enroll in CHM 145 withdraw or do not pass the course. Support the administration of a chemistry placement exam to ensure that students enroll in the correct chemistry course. Many other institutions administer a chemistry placement exam published by the American Chemical Society.

Next assessment cycle for this/these course(s)

We plan to assess CHM 145 and CHM 146 using the same method in the next academic year

Online/Fast Forward Assessment Information

The online and Fast Forward sections of these courses did not use the ACS final exam as their assessment. Fast Forward courses use unit exams and lab assignments similar to the in-person sections. Results from these artifacts are then compared.

Additional Information:

Further analysis of this assessment cycle and the data used to create this report is available upon request