GENERAL EDUCATION PLANNING AND OVERSIGHT TASK FORCE

Revision to General Education Curriculum<br>(Legislative)<br>Implementation: Variable timetables (see below)

## EXECUTIVE SUMMARY

The General Education Planning and Oversight Task Force was jointly charged by the Faculty Senate and Provost in March 2013 to revisit and propose updates to General Education. In addition to studying current research on General Education and our current program, the General Education Task Force widely solicited student, faculty, and stakeholder engagement through a series of Senate reports, multiple retreats, campus and college visits, and web-based public forum (gened.psu.edu). This open and deliberative process generated multiple ideas, culminating in the recommendations presented in this report.

The process was guided by a commitment to a General Education curriculum that embraces breadth of knowledge and facilitates intellectual engagement and flexibility. It was also guided by a commitment to framing the curriculum by a set of contemporary learning objectives that reflect the mission and values of Penn State and enable assessment of the General Education program. Finally, this process was balanced with the understanding that all change requires time and resources.

This report is presented in three sections. The first two sections present recommendations for Senate approval. The third section presents areas where the General Education Task Force suggests further consultation and collaboration with appropriate Senate committees.

The individual recommendations presented in this report are intended to each stand on their own: no recommendation depends on acceptance of another. Each recommendation presents an opportunity to enhance student learning in General Education in complementary ways. A cost estimate, as required by Senate procedures in a legislative proposal, is included with each recommendation. This Summary offers an overview of the recommendations presented later in the report.

## Part I. Recommendations on the Learning Objectives and Curricular Assessment

- Recommendation 1: Revise the current statement on General Education goals ${ }^{1}$ to include updated Learning Objectives as presented.
- Recommendation 2: A regular and ongoing assessment plan for General Education should be developed by the Faculty Senate and University bodies assigned to program

[^0]assessment, following the principles described in this report. The plan should be approved by Faculty Senate, and findings should be used by the appropriate Senate committees to address areas for refinement and improvement.

## Part II. Recommendations on Revisions to the General Education Curricular Structure

- Recommendation 3: Rename Health and Physical Activity (GHA) to Health and Wellness (GHW)
- Recommendation 4: (a) Rename the "Skills" component of General Education to "Foundations" and (b) rename the "Knowledge Domains" component of General Education to "Breadth Across Knowledge Domains".
- Recommendation 5: (a) Require a C or better in GWS (Writing and Speaking) courses, and (b) require a C or better in GQ (Quantification) courses.
- Recommendation 6: (a) Require 6 credits of Integrative Studies as part of the General Education Baccalaureate requirements; (b) create inter-domain courses as a way for students to accomplish the Integrative Studies requirement; (c) create linked courses as a way to offer the Integrative Studies component; (d) replace the "9-6-3" substitution with the more flexible "Move 3 " substitution; and (e) allow an Integrative Studies course to satisfy the flexible 3 credits of exploration within the Associate Degree General Education curriculum.


## Part III. Topics for Further Consideration

The General Education Task Force has identified a number of other areas for refinement of General Education that require further consultation and collaboration with Senate committees:

- Review the Domain criteria and establish regular cycles of course reviews;
- Strengthen the global and cultural component of General Education by updating the criteria for US Cultures (US) and International Cultures (IL);
- Strengthen the global component of General Education by developing a new category of Global Inquiry (GI) courses;
- Consider developing a Distinction track, whereby students can pursue an ambitious set of choices within General Education;
- Consider whether revision to present policies would encourage student intellectual risktaking within General Education.

These topics are suggested in this report in the hopes that further refinement to General Education will be supported.

This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

## INTRODUCTION

## Guiding Principles

The General Education Planning and Oversight Task Force upheld the following principles as they developed these recommendations.


#### Abstract

A revised curriculum should embrace breadth of knowledge as a central goal, consistent with our current program (Recommendations 1, 4, \& 6). Exposing students to breadth is a hallmark of General Education at Penn State that should be preserved. The existing General Education Knowledge Domains have served this purpose for decades, and have become deeply woven into the organization of the University. Because of the importance of the domains, the integrity of the domains is preserved.


The curriculum should present students with the opportunity to meet curricular-level goals and learning objectives, not only goals and objectives within individual courses or domains; and the General Education curriculum should be evaluated continuously (Recommendations 1, 2, \& 5). Learning objectives frame the overarching purposes of the General Education curriculum. The proposed updated learning objectives reflect the mission and values of Penn State, are based on contemporary scholarship on general education and assessment, and were refined through widely solicited feedback from the University community, including at the Faculty Senate's January 27, 2015 meeting.

The curriculum should retain flexibility that enables students to make timely progress toward degree completion, and should ideally increase the flexibility students have to choose courses they find intellectually engaging (Recommendation 6). The recommended structural changes preserve existing flexibility, and present new areas for flexibility including an expanded substitution option. Because students should be encouraged to use the full range of the curriculum, the General Education Task Force does not support or encourage courses that simultaneously satisfy an excessive number of requirements, because such courses ("super courses") too easily become default choices for students, a situation that is undesirable. It should be noted that while the Task Force investigated reducing the number of credits required in General Education, changes to the overall credits in General Education are not recommended. The value of each skill and knowledge domain was affirmed, although the flexibility introduced in Recommendation 6 does change the way individual students may distribute credits among domains.

Any proposed revision should be informed by contemporary scholarship on General Education, and should bring Penn State into alignment with recognized principles of excellence in General Education. Excellent curricula make learning objectives transparent, emphasize integrative learning among other characteristics, and encourage students to increase their engagement with issues that span borders. Each recommendation contributes to this principle in some way. The proposed curricular structure explicitly introduces Integrative Studies as a component of Breadth Across Knowledge Domains. Learning objectives make the purposes of General Education clear and assessment allows the University to make timely adjustments. Additional topics for

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consideration to University-wide requirements suggested in Part III would provide additional opportunities for students to engage with complex topics.

Acknowledging that all change comes with costs, the benefits of change to student learning should be balanced with the costs of implementing and delivering those revisions. The Task Force's recommendations are informed by the realities of Penn State's campus and college structures, and needs of our students. The recommendations:

- encourage explicit integrative thinking: while providing students with opportunities to learn in contextualized ways, connections between domains are made explicit;
- increase flexibility for students who take inter-domain courses with up to 6 credits of exploration among the Knowledge Domains;
- potentially scaffold learning to higher than the 100 level;
- create additional flexibility with the Move 3 substitution;
- emphasize competence in foundational skills;
- provide opportunities for faculty collaboration without requiring team teaching;
- include two Integrative Studies options to allow flexibility in accommodating the different needs of colleges and campuses.

Estimated costs are elaborated with each recommendation, and include:

- A possible 2-3\% increase in the direct instructional cost of delivering the Integrative Studies component of General Education, if credits are taken at higher levels than currently offered. If $30 \%$ of the Integrative Studies courses are team-taught, there would be additional increase in delivery cost of less than $2 \%$.
- Initial costs for implementation and ongoing costs for instructor collaboration are not included, as these depend heavily on the implementation plan, the Integrative Studies $\operatorname{method}(\mathrm{s})$ implemented, and on the support available to faculty. The support body recommended by Faculty Senate at the January 27, 2015 meeting will play an important role in this area;
- A $1-2 \%$ increase in the direct institutional cost of delivering repeat Foundations courses for the relatively small number of students who earn lower than $C$;
- Fewer transfer credits might be used toward General Education requirements if interdomain or linked courses do not correspond with courses at other institutions.

The recommendations in this report reflect the Task Force's effort to balance the costs of change with recommendations that contemporary scholarship in General Education strongly suggests will enhance student learning.

This report is presented in three parts:

- Part I, Recommendations on the learning objectives and curricular assessment;
- Part II, Recommendations on revisions to the General Education curricular structure;
- Part III, Topics for further consideration.

A cost estimate, as required by Senate procedures when a legislative proposal is likely to entail significant costs, is included with each recommendation. Appendix E provides detail on estimated costs of the proposed revisions.

## Implementation

The Logistics Subcommittee of the General Education Task Force has considered the many needed steps for implementation throughout the Task Force's deliberation. Senate officers will identify groups or individuals to develop an effective and consultative implementation plan for approved recommendations. The timeline for implementation will need to be carefully considered and is not determined or prescribed at this time. Some changes, such as name changes to categories, might be implemented almost immediately. For other changes, factors such as the incorporation of requirements into LionPATH and degree audits; support and education for instructors, advisers, and other staff; the number of proposals required for course-creation, revision, and review; and publicity informing students and other stakeholders will need to be considered in determining an implementation timeline.

## PART I. RECOMMENDATIONS on the LEARNING OBJECTIVES and CURRICULAR ASSESSMENT

Studies of General Education nationally and at Penn State suggest that student learning is enhanced by a coherent General Education curriculum with a clearly defined purpose. ${ }^{2}$ Without this, General Education courses often appear to students and faculty as unrelated to each other or to a larger purpose. A curriculum framed by measurable learning objectives allows the University to assess the efficacy of the General Education curriculum on an ongoing basis.

The General Education Task Force recommends modifications to the stated General Education program learning objectives to 1) reflect Penn State's educational mission through contemporary General Education learning objectives and 2) to enable comprehensive, curriculum-level assessment that continually addresses the alignment between the General Education curriculum and the General Education learning objectives.

[^1]
## Learning Objectives

[Much of this section incorporates the Learning Objectives legislative report that the GETF brought to the Senate on January 27, 2015. The point where that report is inserted is noted below.]

For a course to meet General Education domain criteria, it must meet at least one of the recommended General Education learning objectives in addition to the domain criteria. Many existing courses likely already accomplish these objectives because they reflect contemporary educational priorities. In previous General Education Task Force reports, the term "objective" was used to describe the knowledge, skills, and thinking processes for which learners should be able to exhibit gains following instruction, and that terminology is continued here. ${ }^{3}$

Like curricula for major degree programs, the General Education curriculum should be framed by a set of learning objectives and structured to afford every student the opportunity to gain mastery of them. As students gain expertise in course and domain content, they should have opportunities that will help them master the overarching learning objectives for the curriculum. In other words, learning objectives provide a frame around the General Education curriculum, while courses in domains lie within the General Education curriculum.

The curricular learning objectives do not replace or supplant the criteria for the domains. Likewise, learning objectives for the General Education program do not replace or supplant specific content objectives of any course. No single General Education course is responsible for incorporating all of the General Education objectives; neither is a single skill or knowledge domain responsible for transmitting all of the knowledge required for any one specific objective. Rather, all domains contribute to student learning across all of these objectives.

Adoption of Recommendation 1 would require review of all current and new General Education courses for alignment with the updated learning objectives. Other institutions that have adopted similar changes have implemented change through phased review, expedited processes, and incentives for early adopters. At Penn State, similar procedures have been used in past revisions of General Education or introduction of new course designations (e.g. US and IL), and the General Education Task Force encourages the implementation team to consider an expedited and phased review process.

The recommended changes to update the Learning Objectives are identical to language presented to Faculty Senate on January 27, 2015 with two exceptions: 1) as voted during that Senate meeting, the words "linguistic (world languages)" are included in the Key Literacies objective, and 2) the word "include" has been replaced by "such as" in the Key Literacies objective to clarify that these are examples and not an exhaustive list.

[^2]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

Recommendation 1: Revise the current statement on General Education goals ${ }^{4}$ to include updated Learning Objectives.
[Existing Bulletin language is shown in regular font. Deletions are marked by strike-through new language is in boldface.]
The General Education curriculum will enable students to acquire skills, knowledge, and experiences for living in interconnected contexts, so they can contribute to making life better for others, themselves, and the larger world. General Education encompasses the breadth of knowledge involving the major intellectual and aesthetic skills and achievements of humanity. This must include understanding and appreciation of the pluralistic nature of knowledge epitomized by the natural sciences, quantitative skills, social and behavioral sciences, humanities, and arts. To achieve and share such an understanding and appreciation, skills in self-expression, quantitative analysis, information literacy, and collaborative interaction are necessary. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. General Education, in essence, aims to cultivate a knowledgeable, informed, literate human being.

An effective general education program enables students to:
a. acquire knowledge through critical information gathering - including reading, listening, computer-assisted searching, and scientific experimentation and observation;
b. analyze and evaluate, where appropriate in a quantitative manner, the aequired knowledge;
c. integrate knowledge from a variety of sources and fields;
d. make critical judgments in a logical and rational manner;
e. develop the skills to maintain health, and understand the factors that impinge upon it;
f. communicate effectively, both in writing and orally, and using the accepted methods for presentation, organization and debate particular to their disciplines;
g. proceed independently and in collaboration with others in seeking and sharing knowledge;
h. gain understanding of international interdependence and cultural diversity, and develop consideration for values, lifestyles, and traditions that may differ from their own;
i. comprehend the role of aesthetic and creative activities in expressing beth imagination and experience.

An effective General Education curriculum shall facilitate teaching and learning through seven key objectives:
a. EFFECTIVE COMMUNICATION - the ability to exchange information and ideas in oral, written, and visual form in ways that allow for informed and persuasive discourse that builds trust and respect among those engaged in that exchange, and helps create environments where creative ideas and problem-solving flourish.

[^3]b. KEY LITERACIES - the ability to identify, interpret, create, communicate and compute using materials in a variety of media and contexts. Literacy acquired in multiple areas, such as textual, quantitative, information/technology, health, intercultural, historical, aesthetic, linguistic (world languages), and scientific, enables individuals to achieve their goals, to develop their knowledge and potential, to lead healthy and productive lives, and to participate fully in their community and wider society.
c. CRITICAL AND ANALYTICAL THINKING - the habit of mind characterized by comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating a conclusion. It is the intellectually disciplined process of conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.
d. INTEGRATIVE THINKING - the ability to synthesize knowledge across multiple domains, modes of inquiry, historical periods, and perspectives, as well as the ability to identify linkages between existing knowledge and new information. Individuals who engage in integrative thinking are able to transfer knowledge within and beyond their current contexts.
e. CREATIVE THINKING - the capacity to synthesize existing ideas, images, or expertise in original ways and the experience of performing, making, thinking, or acting in an imaginative way that may be characterized by innovation, divergent thinking, and intellectual risk taking.
f. GLOBAL LEARNING - the intellectually disciplined abilities to analyze similarities and differences among cultures; evaluate natural, physical, social, cultural, historical, and economic legacies and hierarchies; and engage as community members and leaders who will continue to deal with the intricacies of an ever-changing world. Individuals should acquire the ability to analyze power; identify and critique interdependent global, regional, and local cultures and systems; and evaluate the implications for people's lives.
g. SOCIAL RESPONSIBILITY AND ETHICAL REASONING - the ability to assess one's own values within the social context of problems, recognize ethical issues in a variety of settings, describe how different perspectives might be applied to ethical dilemmas, and consider the ramifications of alternative actions. Individuals should acquire the self-- knowledge and leadership skills needed to play a role in creating and maintaining healthy, civil, safe, and thriving communities.

## Curricular Assessment at the General Education Program Level

Assessment of the General Education curriculum, in addition to assessment of individual courses, academic majors, or minors provides the University and the Faculty Senate with data on the effectiveness of the curriculum. This allows for timely adjustments, and provides assurance to stakeholders and accreditors that we are aware of and responsive to strengths and areas for improvement. Such responsiveness allows the University to create, deliver, and demonstrate excellence in undergraduate education.

Regular and ongoing assessment of General Education is an expectation of the Middle States Commission on Higher Education (www.msche.org), but is an area where Penn State is currently lacking. The General Education Task Force recommends that assessment of General Education follow a five-year model similar to the current University-wide assessment process for academic majors that is already conducted as required by the Middle States. One or two learning objectives should be assessed each year so that over each five-year period all seven learning objectives are assessed, and the cycle would then repeat. Each General Education learning objective will be assessed in summative form, which involves conducting assessment in both introductory and upper division classes (e.g., the performance of first-year and upper-class students around a learning objective). The assessment work would be guided by groups such as (a) the ACUE Assessment Coordinating Committee, (b) the Schreyer Institute for Teaching Excellence, and (c) the faculty support structure for General Education that has been recommended by Senate and acknowledged by President Barron. ${ }^{5,6}$

Principles to be followed for the development of effective practices for assessing student achievement of the seven learning objectives, following the process described above, include:

1. Data from selected courses will be used in aggregate for curriculum-level assessment;
2. To the degree possible, data collection for assessment should be meaningfully integrated with the learning activities of a course;
3. To the degree possible, instructors involved in the teaching of General Education courses should be involved in the design, analysis, and interpretation of assessments;
4. Instructors should be provided opportunities to obtain formative assessment data that will enable improvements to the design and delivery of the course. Course-level data will not be used in any faculty evaluations, and will not be made public;
5. Assessment practices must inform the effectiveness of the General Education program as a whole. These evaluations will use institutional level data, aggregated across courses, to evaluate student gains from the start to the end of their studies;
6. Assessment methods should be both reliable and valid measures of student performance in relation to the learning objective being assessed.
[^4]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

A principal contemporary assessment method involves collecting a sample of student work from courses across domains that address the same learning objective. The work is then evaluated based on a validated rubric (e.g., AAC\&U Value rubrics) or other psychometrically tested instrument (e.g. Critical Thinking Assessment Test). Success of the General Education program is shown through gains in performance in learning objectives from the start to the end of students' careers. Through this process, it cannot be guaranteed that General Education is the sole or primary contributor to gains, but if gains are NOT seen then it is clear that General Education is not having a positive contribution, or that its positive contribution is being offset by other negative factors. If gains for students in some colleges and not others are observed, then we may be able to differentiate major-related gains from General Education-related gains. Furthermore, the assessment instruments should provide the detail necessary to identify specific areas in which modifications to General Education might improve student learning.

General Education at Penn State has not been systematically assessed. However, a second pilot of the nationally validated Critical Thinking Assessment Test (CAT) is currently underway at the University Park, Greater Allegheny, and Abington campuses. Critical thinking is one of the proposed updated learning objectives, and it is currently being assessed in a pre/post modality by administering nationally validated instruments in English 015 and English 202. Score gains across the undergraduate career are sought. The first pilot revealed the instrument to be an appropriate measure of critical thinking for Penn State students. ${ }^{7}$

Baccalaureate program assessment is coordinated and facilitated university-wide by the ACUE Assessment Coordinating Committee, in partnership with the Schreyer Institute for Teaching Excellence. The General Education support structure that was recommended at the January 27, 2015 Senate meeting will likely play a role in supporting faculty to develop assignments that meet both course objectives and General Education learning objectives in meaningful ways. As indicated below in Recommendation 2, the General Education Task Force recommends that the assessment plan be reviewed by appropriate Senate bodies before implementation takes place. The General Education Task Force also recommends that assessment data be shared with appropriate Senate committees regularly so they may respond to areas for improvement.

Regular and ongoing assessment of General Education is an expectation of the Middle States Commission on Higher Education, but is an area where Penn State is currently lacking. Some investment in meeting this accreditation requirement is expected, and has been made through the pilot of the CAT assessment. The current CAT assessment employs faculty at $\$ 300$ each to score the assessment. If the same method were used annually for assessing two learning objectives, involving 30 faculty from five units, the estimated cost of appropriate compensation for faculty scorers is about $\$ 90,000$. There will be additional costs for instrument development and overhead for the coordinating support.

Each General Education objective will be assessed every five years, involving participation from several courses. This effort will involve varying amounts of time from assessment coordinators and participating faculty, depending on the measurement technique selected by the faculty

[^5]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.
members. The budget for this assessment process will be developed by the body responsible for the assessment plan and coordination, and will vary depending on the particular details of the assessment plan.

Recommendation 2: A regular and ongoing assessment plan for General Education should be developed by the Faculty Senate and University bodies assigned to program assessment, following the principles described in this report. The plan should be approved by Faculty Senate, and findings should be used by the appropriate Senate committees to address areas for refinement and improvement.

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## PART II. RECOMMENDATIONS on REVISIONS to the GENERAL EDUCATION CURRICULAR STRUCTURE

The Task Force recommends four changes to the General Education program structure summarized in Tables 1 and 2:

- Rename several components to make their curricular roles more apparent (Recommendations 3 and 4)
- Emphasize the role of foundation courses in Writing and Speaking (GWS) and Quantification (GQ) by requiring students to earn a C or better (Recommendation 5)
- Create an explicit Integrative Studies component (Recommendation 6)
- Increase flexibility for students by expanding the 9-6-3 substitution (Recommendation 6)

Table 1: Recommended revisions to the current Baccalaureate Degree General Education program are shown in regular font. Deletions are marked by crossing-out; new language is in boldface.

|  | Credits | Domains | Details/Rules/Description |
| :--- | :--- | :--- | :--- |
| Foundations <br> Skills | 15 | 9 credits GWS <br> 6 credits GQ | C or better required |
| Breadth <br> Across <br> Knowledge <br> Domains | 30 | 6 credits GA | Flexibility: 3-6-9 substitution; Move 3 <br> substitution; world language <br> substitution; upper level substitution |
|  |  | 6 credits GH <br> 6 credits GS <br> 9 credits GN <br> 3 credits GHA <br> GHW | 6 credits of Breadth taken as <br> Integrative Studies (Inter-domain <br> and linked courses are proposed as <br> ways for students to satisfy this <br> requirement) |
|  |  |  | Exploration: students may flexibly <br> distribute remaining credits in any <br> Knowledge Domain, Integrative <br> Studies course, or world language |

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Table 2: Recommended revisions to the current Associate Degree General Education program are shown in regular font. Deletions are marked by crossing-out; new language is in boldface.

|  | Credits | Domains | Details/Rules/Description |
| :--- | :--- | :--- | :--- |
| Foundations <br> Skills | 6 | 3 credits GWS <br> 3 credits GQ | C or better required |
| Breadth <br> Across | 15 | 3 credits GA | Flexibility: upper level substitution |
| Knowledge <br> Domains |  | 3 credits GH <br> 3 credits GS <br> 3 credits GN <br> 3 credits in any <br> domain or <br> Integrative <br> Studies course |  |

Appendix A shows how Recommendations 3-6 would alter the University Bulletin's entry for the Baccalaureate Degree General Education program.

Appendix B shows how Recommendations 3-6 would alter the University Bulletin's entry for the Associate Degree General Education program.

## Rename the Domain Title Health and Physical Activity (GHA) to Health and Wellness (GHW)

Faculty who participated in retreat and college discussions have strongly recommended updates to the language used to describe the Health and Physical Activity knowledge domain to better reflect the domain's focus on theory and practice of life span health and wellness. Currently, fewer than one-third of this requirement is met through physical activity courses. ${ }^{8}$ Moreover, many courses thought of as physical activity courses include knowledge and theory elements. The current labeling does not reflect the fact that most GHA courses involve a combination of knowledge/theory/classroom and practice/activity, and those that emphasize practice may be analogous to studio or lab courses offered within other domains.

This change will require editing of all web sites that refer to Health and Physical Activity or GHA, including the University Bulletin and Recommended Academic Plans. This is a non-trivial number of sites, but this could be implemented in a similar manner as other name changes in the past (e.g. Foreign Language to World Language; PSY 002 to PSYCH 100, etc.).

## Recommendation 3: Rename Health and Physical Activity (GHA) to Health and Wellness (GHW)

[^6]
## Rename General Education Components

(a) "Foundations" are the central skill courses in writing, communication (GWS) and quantification (GQ) which are important for all students. The name Foundations indicates that these are areas for continued growth and makes clearer the relationship to the Knowledge Domains and other parts of the undergraduate curriculum.
(b) "Breadth Across Knowledge Domains" courses expose students to all the General Education Knowledge Domains (GA, GH, GS, GN, and GHA/GHW). The revised name emphasizes the importance of the broad exposure to disciplinary and domain-based ways of thinking that students acquire through General Education.

This change will require editing of all web sites and current documents that refer to Skills and Knowledge Domains categories of General Education. The majority of changes will be in the University Bulletin, the Policies and Rules for Undergraduate Students website, the Undergraduate Advising Handbook, and documents created to support New Student Orientation.

> Recommendation 4: (a) Rename the "Skills" component of General Education to "Foundations" and (b) rename the "Knowledge Domains" component of General Education to "Breadth Across Knowledge Domains."

## Reinforce Role of Foundation Courses

The Writing and Speaking (GWS) and Quantification (GQ) categories of General Education, historically referred to as "Skills" components, are both areas of key literacies, preferably taken relatively early in a student's program of study, that subsequent courses draw upon and refine. Faculty who participated in retreats and online discussion strongly supported requiring a C ("satisfactory") grade in these courses for them to satisfy General Education requirements. Currently, a D ("poor") grade is sufficient to satisfy General Education requirements.

Moreover, many students transfer credit to Penn State and apply those credits to General Education; students need to have earned a C or higher for the credits to be accepted by Penn State. Requiring a C minimum brings these Foundation courses at Penn State into alignment with courses transferred from other institutions. Moreover, all baccalaureate degree programs require a minimum of 15 credits of C or better course work in the major. Requiring 15 credits of C or better in the General Education curriculum aligns General Education with other portions of the student's academic experience.

Requiring a C or better in GWS and GQ courses may impact degree progress for some students. From fall 2009 to spring 2013, 3.2\% of students enrolled in ENGL 015 or ESL 015 earned a D while $1.5 \%$ of students taking ENGL 202A-D earned a D. ${ }^{9}$ During the 2013-2014 academic year, $5.4 \%$ of GQ courses used by graduating students to complete General Education requirements were completed with a grade of D. ${ }^{10}$

[^7]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

To provide an estimate of the cost of this recommendation, the Budget Subcommittee focused on the total number of students who received a "D" in a GQ or GWS course during the 2013-4 academic year, since students who currently withdraw or earn an F already retake the course and the University absorbs the cost. Under this proposed change, only those receiving a "D" would require additional instruction, so the subcommittee calculated the cost of delivering an additional 3-credit course for each of these students.

University wide, $5.7 \%$ of the students enrolled in GWS or GQ courses in 2012-3 earned a D. Assuming an extra 3-credit course would need to be delivered to these students and assuming no additional revenue from tuition would be received, it would cost an additional $1-2 \%$ to deliver General Education.

There are a number of limitations to these estimations that need to be held in mind. First, because it is based on 2012-3 data, the estimate does not take into account the reductions in GQ D/F/WN rates with the implementation of the ALEKS placement process. According to the ALEKS report, there was a $3 \%$ decline in D/F/WN in fall 2014, with a $2 \%$ decline in late drops (WN), and a $1 \%$ decline in D grades (with no change in F grades). ${ }^{11}$ Second, the model assumes that all students receiving a D will retake the course as an overload, thus returning no revenue to the University. However, it is likely that some costs would be recovered when some students retake the courses over the summer or as part of their regular load.


#### Abstract

Recommendation 5: (a) Require a C or better in GWS (Writing and Speaking) courses for the Baccalaureate and Associate Degree General Education programs, and (b) require a C or better in GQ (Quantification) courses for the Baccalaureate and Associates Degree General Education programs.


## Make Curricular Changes to Facilitate Student Learning and Flexibility

Explicit integrative experiences are a hallmark of contemporary General Education programs, ${ }^{12}$ and seeking improvement in this area was a priority for the Task Force's efforts. In facilitating student learning, however, we also prioritized the preservation or increase of student flexibility to tailor General Education in ways that are individually meaningful.

The Task Force recommends (a) the creation of an Integrative Studies requirement, which may be delivered in ways that honor campus and college strengths via (b) inter-domain courses and/or (c) linked courses. Providing two options to meet the Integrative Studies requirement acknowledges the flexibility needed by campuses and colleges to deliver this component of the curriculum. An expansion of the existing substitution rule that allows flexibility among Knowledge Domains is recommended with (d) the Move 3 substitution. The Move 3 substitution expands substitutions to include all Knowledge Domains, increasing students' flexibility, and

[^8]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.
allows all domains to participate fully in inter-domain courses, particularly the GHA/GHW domain. Inter-domain courses further increase student flexibility, creating space for students to explore more freely, incorporate minors, or include upper-level courses or world languages. Finally, in part (e) Integrative Studies courses would be allowed in the flexible 3 credits of the associates degree program.

## (a) Develop an Integrative Studies component

The General Education Task Force explored multiple ways to make integration an explicit part of the General Education curriculum. Several possibilities were presented in prototype curricula, including thematic pathways, interdisciplinary courses, and combinations of the two. The proposed revision represents the Task Force's balance between the ideals of integration and the realities of a large, complex institution such as Penn State with campuses of differing needs and strengths.

The Task Force recommends the creation of an explicit integration component in General Education to require 6 credits of Integrative Studies. There are two proposed ways for campuses and colleges to deliver Integrative Studies: inter-domain courses and linked courses. To the degree possible, units are encouraged to develop both modes of delivering Integrative Studies courses to give students the maximum amount of flexibility and opportunity in their General Education experience.

## (b) Create inter-domain courses as one way for students to accomplish the Integrative Studies component

Campuses or colleges may deliver the Integrative Studies component of General Education via inter-domain courses. Under this model, students will take 6 credits of inter-domain courses to satisfy the Integrative Studies requirement.

An inter-domain course will meet the criteria of two knowledge domains. As such, students will need to understand and practice intellectual frameworks and ways of thinking promoted by both knowledge domains. Other characteristics include:

- Each inter-domain course will meet at least one General Education learning objective as well as the criteria of two knowledge domains. Credits will be applied in both domains (i.e. double counted) towards fulfilling the Breadth Across Knowledge Domains requirement. However, the total number of credits associated with the course will remain the same (that is, a 3-credit course will not fulfill 6 credits).
- Students may not fulfill all of the required work in any single domain with inter-domain courses.
- Together, the 6 credits of inter-domain courses must span at least three of the Knowledge Domains.
- Inter-domain courses should be at the 200 -level and carry a prerequisite (e.g. minimum semester standing of third semester, or 3 credits of coursework in one of the two relevant Knowledge Domains) to provide the necessary background for a 200-level university course.
- Inter-domain courses may be used to fulfill both General Education and major degree requirements as long as there is compliance with the current "firewall" policy (See Appendix A), which ensures that General Education is broader than the student's major by not allowing courses with the same prefix as the student's primary major to count as General Education.
- Inter-domain courses will be reviewed and approved by the Faculty Senate using the procedures of the Senate Committee on Curricular Affairs, which are the current processes for approving General Education courses. As is now the case, proposals would originate within academic departments and programs. Inter-domain courses would be listed with both relevant Knowledge Domains and would, in addition, carry an Integrative Studies designation.

The Task Force identified this strategy for initiating an Integrative Studies component for multiple reasons:

- The curriculum needs to structure opportunities for students to practice integrative thinking across fields of knowledge;
- A single course-based experience makes integration explicit to students and provides incentive and support for students to engage in integrative thinking;
- This strategy preserves the current knowledge domains, but creates an incentive for academic units to participate in this type of innovative course development because there will be student demand for courses;
- This strategy allows modest scaffolding of the General Education curriculum;
- Faculty with current inter-domain expertise, or those wishing to develop this expertise or to team-teach, can choose to participate. However, at least half of the courses in the General Education Knowledge Domains will remain as they currently are, as students must take the majority of General Education courses in single Knowledge Domains.

The use of inter-domain courses to complete the Integrative Studies requirement increases student flexibility, as illustrated through examples in Appendix C, and permits broader participation by faculty working in the domains. It also reflects contemporary trends in interdisciplinary faculty research and scholarship, which often crosses domain boundaries. The extent of the flexibility will depend on the array of inter-domain courses available at a student's campus, but each inter-domain course a student takes enables the student to take an additional exploration course from any Knowledge Domain.

Because inter-domain courses will count in two domains, students will have between 3 and 6 credits of General Education courses that can be spent in any General Education Knowledge Domain, (see Appendix C for examples), bearing in mind the current "firewall" restrictions (Appendix A details those restrictions). These courses are considered "Exploration" within Breadth Across Knowledge Domains to emphasize the role General Education plays in expanding students' intellectual horizons and the intentionality that should underlie their selection of courses. Thus, using inter-domain courses for Integrative Studies provides students with an increased ability to incorporate World Language courses, to sample an unfamiliar field, or to complete a minor.

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There are currently only four distinct General Education courses designated with multiple domains (with a total of eight course listings when including cross-listed and honors versions), all at the 200 -level. The University Bulletin currently lists about 100 other General Education courses that appear to address a topic from perspectives grounded in multiple domains. Of these, almost half are at the 200-level or above. All knowledge domains have an array of courses that, if departments and faculty choose to request course approval, could potentially meet the interdomain criteria. These figures are not intended to imply that little work is needed, or that these courses currently meet the requirements, but rather to illustrate that inter-domain perspectives are not foreign to current General Education courses.

## (c) Create linked courses as a way to deliver the Integrative Studies component

An alternative way students may meet the Integrative Studies component of General Education is to take a pair of linked courses. Linked courses are those from different knowledge domains that demonstrate a substantive connection to one another, through sharing a culminating project, reading assignments, a topic/subject-matter, etc. Clusters may include more than two courses linked together, and students can choose two or more of them, and in principle a student might build multiple courses toward a broadly integrative minor by taking several linked courses. Other characteristics of linked courses include:

- Each set of linked courses course will meet at least one common General Education learning objective;
- Each course in the set of linked courses will satisfy the criteria for a different knowledge domain (e.g. one GA course and one GH course);
- At least one of the linked courses should carry the other course(s) as a prerequisite or concurrent course requirement;
- The integrative studies requirement would be fulfilled only when students have completed both courses of a linked pair;
- Linked Courses may be at any level in the curriculum, which could encourage scaffolding General Education beyond the introductory levels and could facilitate integration into minors;
- Linked courses may be used to fulfill both General Education and major degree requirements as long as there is compliance with the current "firewall" policy (see Appendix A), which ensures that General Education is broader than the student's major by not allowing courses with the same prefix as the student's primary major to count as General Education.
- Linked courses will be reviewed and approved by the Faculty Senate using the processes and procedures of the Senate Committee on Curricular Affairs, which are the current processes for approving General Education courses. As is now the case, proposals would originate within academic departments and programs. Linked courses would each be listed in their own knowledge domain and would, in addition, carry an Integrative Studies designation.

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The Task Force identified this strategy for initiating an Integrative Studies component for multiple reasons:

- The curriculum needs to structure opportunities for students to practice integrative thinking across fields of knowledge;
- This strategy preserves the current knowledge domains and allows campuses who already employ this model to continue to do so;
- This approach to integration takes advantage of domain area expertise by encouraging faculty collaboration across knowledge domains;
- This approach invites courses to be linked in various ways.
- Courses focusing on common topics or emerging areas of interest and scholarship can be linked to enable students to learn from faculty examining topics from multiple disciplinary perspectives

Example schedules of students using the linked course model for their Integrative Studies requirement are shown in Appendix C.

The existing LEAP (Learning Edge Advantage Program) at University Park provides logistical precedent for linked pairs of courses. Some campuses already offer linked courses through learning communities and other strategies. For example, one campus chooses an annual theme and offers multiple courses associated with it (e.g., Greater Allegheny's Teaching International program). Local initiatives should be preserved, and including linked courses as an Integrative Studies option would help to foster community-building and integrated programming at those locations. The linked course model is meant to encourage the continuation and growth of such innovations.

Implementation considerations of (a-c)
If approved as a curricular component, the implementation of Integrative Studies courses should not necessarily be tied to the implementation of other portions of the General Education revision. The implementation team for Integrative Studies should consider the timeline in which the University could require this portion of the curriculum. This consideration would include factors such as the availability of faculty who wish to teach inter-domain courses; and time to develop, approve, and offer enough inter-domain and linked courses for students to have appropriate choices.

If accepted, The General Education Task Force recommends that roll-out of this requirement be phased. The implementation team could consider making the requirement optional for some amount of time while course development and faculty collaboration are underway. Additionally, the implementation team may consider offering incentives, such as expedited and streamlined review of courses for early adopters/creators.

Once fully implemented, the Integrative Studies courses will account for about $13 \%$ of each student's General Education course work (at least 6 credits out of 45), so the University will need to provide approximately $13 \%$ of the General Education curriculum as Integrative Studies courses. During the Fall 2012 and Spring 2013 semesters, all Penn State campuses offer a total of 3672 General Education courses with 11,452 sections. If similar numbers of courses and sections are offered in the future, the university, across all campuses, will need to offer a total of about

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1488 sections of Integrative Studies courses each academic year. Depending on how many sections were offered in each course, the number of distinct courses could vary. If the same proportion of courses to sections is preserved for Integrative Studies courses, then the University will need to offer 477 Integrative Studies courses among the 3672 General Education courses offered each academic year.

## (d) Increase Student Flexibility by replacing the "9-6-3" substitution with the more flexible "Move 3" substitution

Currently, students may "substitute a third course in one of the Knowledge Domains areas of Arts, Humanities, or Social and Behavioral Sciences for a second course in one of the other areas. For example, a student might take 3 courses in the Arts, two courses in the Humanities, and only one course in the Social and Behavioral Sciences. This substitution is often referred to as the 9-6-3 sequence, representing the 9 credits, 6 credits, and 3 credits completed in place of the specified 6-6-6.... The use of these two substitutions [World Language and 9-6-3], either alone or in combination, may not lead to the complete elimination of any area in the skills or knowledge domains categories in the student's general education program. ${ }^{13}$ This is a distinctively attractive source of flexibility for students that should be retained or enhanced. Acquiring firm data on the specific numbers of students who have used this substitution is not feasible with the current student information system, but several data sources affirm the information reported by advisers about the prevalence of this substitution. For example, over the 2013-2014 academic year, 892 "9-6-3" substitutions were recorded in the Course Substitution and Request system, representing more than $40 \%$ of the substitutions made to General Education requirements. This figure reflects only five academic units who participated in this system for one year or less, so underrepresents the prevalence of the use of this substitution.

The Task Force recommends expanding this flexibility to GN and GHW, allowing students to develop a sequence of credits in any of the knowledge domains (GA, GH, GS, GN, GHW) by substituting 3 credits from one of the other areas (GA, GH, GS, GN), provided no knowledge domain is eliminated. This substitution is referred to as the Move 3 substitution. As with the current 9-6-3 substitution, students are not permitted to eliminate any domain or reduce a domain to only inter-domain courses, and are not permitted to use World Language and Move 3 in the same domain. Appendix D shows examples of how the Move 3 substitution allows students flexibility in completing their General Education requirements.

Aside from expansion of 9-6-3 to additional Knowledge Domains, the Task Force affirms the remaining flexibility provisions for Baccalaureate Degree General Education requirements, and does not recommend other changes. The existing flexibility rules allow students to substitute a World Language course or upper level course for a course within a knowledge domain, provided the domain is not eliminated from a student's program. In the Task Force's recommendations as a whole, regardless of substitutions or other means of flexibility-including inter-domain

[^9]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.
courses-each Knowledge Domain would be fulfilled by at least three credits within that Knowledge Domain itself.

## (e) Allow an Integrative Studies course to satisfy the flexible 3 credits of exploration within the Associate Degree General Education curriculum

Students earning Associate Degrees should have the opportunity to participate in Integrative Studies. The current Associate General Education Program is 21 credits, distributed as 6 credits of Foundations/Skills and 15 credits of Breadth Across Knowledge Domains. Within the Knowledge Domains, students must take one course each in GN, GA, GH, and GS (12 credits total), and may select a course in any Knowledge Domain for their final Breadth course (the final 3 credits). The General Education Task Force recommends that Integrative Studies courses be included as an allowable choice for the flexible Breadth requirement.

## Summary of Projected Costs

Estimated additional costs due to the proposed General Education revisions are listed in Appendix E. Delivery of the Integrative Studies curricular component is estimated to potentially increase the cost of General Education by 2-3\% over the current General Education program.
Implementation costs will depend on the needs of faculty to support course development, and the needs of Senate committees to provide timely review of proposed courses. There are likely to be professional development costs for those who teach inter-domain courses, particularly if instructors need to gain expertise in an unfamiliar domain.

In making projections about the cost of this package of proposed changes to General Education, the General Education Budget subcommittee calculated the direct institutional cost per student to deliver the current 45 -credit General Education curriculum. To do this, the total Student Credit Hours (SCHs) for all courses with a "Gx" designation ("GWS," "GS," "GN," "GH," and "GHA") were determined. The 2012-13 cost/SCH tables were then used to calculate the cost of the current curriculum by campus and by course level.

This analysis assumed that the total number of Gen Ed course sections would remain unchanged and that students would complete their Gen Ed coursework in four years. The cost/SCH was inflated to take into account the 2013-14 and 2014-15 general salary increases.

The current cost of 45 credits of Gen Ed distributed across all levels was compared to 39 credits proportioned at the current cost plus 6 credits at the 200 -level to account for the inter-domain course requirement. Two main factors contribute to the slight increase in cost of 200-level courses over 000 or 100 -level courses. On average, the class sizes are slightly smaller and instructional costs are slightly higher.

## Delivery Costs

At University Park, the direct instructional cost per student of the current General Education program is $\$ 7,052$. (This figure represents only instructional salaries and does not include the substantial other kinds of expenses associated with providing General Education). Over 4 years

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with 39,847 FTE students, the total cost of the current General Education program at UP is $\$ 70.25 \mathrm{M}$. ${ }^{14}$

At University Park, the estimated direct instructional cost per student of the proposed curriculum is $\$ 7,256$, an increase driven by the mandate to deliver 6 credits at the 200 -level, assuming an average smaller class size for 200 -level courses compared to 000 or 100 -level class size. Over 4 years with the same 39,847 students, the total estimated cost of the proposed curriculum is $\$ 72.3 \mathrm{M},{ }^{15}$ or approximately $\$ 2 \mathrm{M}$ more, an increase just under $3 \%$.

Because the direct instructional cost per student of the General Education program varies widely across the Commonwealth Campuses, the Budget subcommittee estimated the cost per student at the Altoona campus, which delivers the highest percentage of General Education SCHs among campuses other than University Park.

At Altoona, the direct instructional cost per student of the current General Education program is $\$ 6,866$. Over 4 years with 3,804 FTE students, the total cost of the current General Education program is $\$ 6,529,600 .{ }^{16}$

The estimated direct instructional cost per student of the proposed curriculum at Altoona campus is $\$ 6,997$. Over 4 years with the same 3,804 students, the total estimated cost of the proposed curriculum at Altoona is $\$ 6,654,100,{ }^{17}$ or approximately $\$ 124,500$ more, an increase just under $2 \%$.

This analysis assumes the proportion and cost of Gen Ed courses by level do not change. By treating all direct instructional costs as additional, we do not capture or quantify any redirection of current resources or efficiencies gained by the flexibility the proposed curriculum introduces into the General Education program.

Inter-domain courses provide an opportunity for team teaching, but at an increased cost to delivery. There is variability by unit on instructional costs, teaching loads, etc., but to provide a rough estimate: if $30 \%$ of Integrated Studies courses are team taught and using supplemental pay to replace instructors at $\$ 4000$ /course indicates there would be a $\$ 1.79 \mathrm{M}$ increase in direct instructional cost, less than $2 \%$ of the delivery cost of the current General Education program.

## Implementation and Ongoing Development Costs

Implementation costs are an important consideration, as this innovation will require staff and faculty time to develop, propose, certify, and approve a sufficient number of courses over the implementation time period. The faculty support structure for General Education that has been recommended by Senate and acknowledged by President Barron could be leveraged to facilitate ongoing development of and innovation in gen Ed, with the approval and support of Senate.

[^10]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

## Student Logistical Costs

The Integrative Studies requirement creates the most significant area of potential concern for students. Under our current program, students can quite easily complete all 45 credits of General Education through transfer options. While there are a number of expected benefits for students, this requirement will create the likely need for students to complete six credits of General Education at Penn State. An identification of appropriate substitutions will be an important strategy for addressing this issue, as will be more flexible criteria for accepting transfer credits to meet General Education requirements even if courses are not identical.

Recommendation 6: (a) Require 6 credits of Integrative Studies as part of the General Education Baccalaureate requirements; (b) create inter-domain courses as a way for students to accomplish the Integrative Studies requirement; (c) create linked courses as a way to offer the Integrative Studies component; ( $d$ ) replace the " $9-6-3$ " substitution with the more flexible "Move 3 " substitution; and (e) allow an Integrative Studies course to satisfy the flexible 3 credits of exploration within the Associate Degree General Education curriculum.

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## PART III. TOPICS FOR FURTHER CONSIDERATION

The General Education Task Force has identified a number of other areas for the improvement of General Education. We provide the summary below to inform Senate of the Task Force's findings about General Education revision and encourage further consideration by appropriate committees. Each presents further opportunities to enhance the General Education program and to promote student engagement with this portion of their undergraduate curriculum.

## Review the Domain Criteria and Establish Regular Cycles of Course Reviews

The criteria for courses to receive the Skill and Knowledge Domain designations have been unchanged since the current domain structure was created in 1985. Faculty members who participated in General Education retreats and on working groups comprised of disciplinary experts from each domain have developed drafts of recommended changes to the criteria for the Skill (Foundations) and Knowledge Domains. The Task Force encourages further consultation and formal revision of the criteria.

Once revised criteria are established, the Task Force encourages the regular review of these Skill (Foundations) and Knowledge Domain criteria, and the periodic review, with opportunities for updating, of all courses that have received any General Education designation. Further, domain experts should explicitly be included as members of the review committees for General Education courses.

## Strengthen the US Cultures (US) and International Cultures (IL) Requirement

Several University requirements often overlap with General Education, including First-Year Engagement programs and the United States Cultures and International Cultures components. Although these are not part of General Education per se, the General Education Task Force was specifically asked to work with the Joint Diversity Awareness Task Force to consider the current United States Cultures (US) and International Cultures (IL) requirement.

The Task Force strongly encourages that the US and IL criteria be reviewed and updated in a similar manner as the Skills (Foundations) and Knowledge Domain criteria. Drafts of these updates have been developed, and should be further discussed. Once revised criteria are established, the Task Force encourages the regular review of these US and IL criteria, and the periodic review, with opportunities for updating, of all courses that have received these University designation. Further, domain experts should explicitly be included as members of the review committees.

## Strengthen Student Learning Around Global Issues

The Task Force strongly endorses the addition of a third component to the University requirements, along with US and IL, to emphasize inquiry of global, interdependent, and integrated issues, such as economic, environmental, cultural, political, and technological trends. Understanding the complex dynamics of a globally integrated reality is a necessary prerequisite for the development of ethically competent and socially responsible attitudes, preparing students to lead fully productive lives as professionals, citizens, and humans in the global community. The Task Force offers the following description for this new component.

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Global Inquiry courses focus on studying the integrated world, both in its present state and the historical origins of trends that make up its current landscape. They introduce and analyze major issues and challenges facing humanity, discuss strategies to deal with these, and invite students to actively seek solutions and apply their knowledge to real-life situations.

Courses with the Global Inquiry designation focus primarily on three or more of the following:

1. Enhance student knowledge of global dynamics: the key features, trends, and interconnections in one or more major global systems such as economic, political, cultural, ecological, and technological;
2. Increase student understanding and knowledge of major global issues and persistent interconnected problems and concerns facing humanity, such as peace and security, human rights, economic development, as well as demographic, health, and ecological concerns;
3. Foster student inquiry into the historical origins and development of modern global problems, achievements, systems and trends;
4. Encourage students to consider, analyze, and discuss current and alternative strategies in tackling global challenges and future directions in global affairs.

## Consider Developing a Distinction Track

A General Education Distinction track, open to all, would recognize students who take full advantage of the opportunities Penn State offers in General Education and complete an ambitious set of choices in fulfilling their requirements.

Earning Distinction in General Education might include, for example, a specified number of credits in Engaged Scholarship (such as service learning, undergraduate research, study away, internships); additional engagement with diversity and with global and international learning; approved patterns of upper-level coursework; independent study; or completion of a portfolio structured around the General Education learning objectives, in which students would present evidence of their excellence in General Education.

## Consider Strategies to Encourage Student Intellectual Risk-taking Within General Education

Taking intellectual risks, moving beyond one's comfort zone, fostering curiosity, and learning to rebound from failure are all aspects of the educational process that can be of great benefit to students. However, student anxieties over grades, or other pressures to show immediate success, sometimes lead to an undue preference for "safe" educational choices, the avoidance of risk, and the flattening of aspirations. The immense range of academic opportunities at Penn State, including in General Education, is one of our distinctive characteristics. Finding ways to encourage students to more fully take advantage of this richness can strengthen their educational outcomes.

## Consider Expanding the Pathways for Integrative Studies

The proposal for inter-domain courses and linked courses is not intended to limit the ways in which Integrative Studies could be incorporated into our General Education curriculum. Other possible pathways, some relating to Engaged Scholarship initiatives (e.g., service learning, undergraduate research) that might serve to achieve this objective should be considered.

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## ACKNOWLEDGEMENTS

Over the past two years, a multitude of people have contributed to the work the Task Force. Senate leaders and the Provost have continuously supported the work of the Task Force. We are thankful for their insight and leadership. We would like to thank all who served on a subcommittee, which is where much work was accomplished. We also would like to thank all who participated in retreats and working groups, which heavily influenced the recommendations in this report. Faculty, staff, and students from around the Commonwealth contributed through town hall meetings, written statements, and contributions to the web site. We are particularly thankful for the input from student leaders.

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## Appendix A: Revised University Bulletin listing for the Baccalaureate Degree General Education Program <br> (http://bulletins.psu.edu/undergrad/generaleducation/generalEd5 )

[Existing Bulletin language is shown in regular font. Deletions are marked by crossing-out; new language is in boldface.]

## THE BACCALAUREATE DEGREE GENERAL EDUCATION PROGRAM

The baccalaureate degree General Education program consists of 45 credits that are distributed among two General Education components: (1) Foundations Skills (15 credits) and (2) Breadth Across Knowledge Domains ( 30 credits) in the Natural Sciences, Arts, Humanities, Social and Behavioral Sciences, and Health and Wellness Physical Activity. Every baccalaureate degree student also completes the First-Year Seminar, United States Cultures and International Cultures, and Writing Across the Curriculum requirements.

A restriction is placed on students in majors that are closely linked to the Knowledge Domains of Natural Sciences, Arts, Humanities, and Social and Behavioral Sciences to ensure that they participate in the full breadth of General Education. These students may not use a course in their academic major to satisfy one of the Breadth Across Knowledge Domains requirements. For example, an Economics major may not use an economics course to fulfill his/her social and behavioral sciences requirement. Also, students may not count courses cross-listed with courses in their major to fulfill one of the General Education Breadth Across Knowledge Domain requirements, e.g., a Theatre major may not register for THEA 208 (GA;US;IL) / AAAS 208 (GA;US;IL) and have it count in the Arts requirement.

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BACCALAUREATE DEGREE REQUIREMENTS
GENERAL EDUCATION


## Flexibility of the Baccalaureate Degree General Education Requirements

Penn State wants students to use General Education to experiment and explore, to take academic risks, to discover things they did not know before, and to learn to do things they have not done before. To that end, the General Education program extends the concept of flexibility to all aspects of the degree program.

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Students may, with the permission of their adviser and dean's representative:

1. Substitute a 200- to 499-level course in an area of General Education for a course found on the General Education list. For example, a student may take a 400 -level course in history and use it to meet the General Education requirement satisfied by a comparable lower-level history course.
2. Substitute a foreign language at the twelfth credit level of proficiency, as measured by the Penn State foreign language offerings, for 3 credits in any of the categories of General Education. Baccalaureate degree students may substitute study in a foreign/second language at the twelfth credit level of proficiency or higher for any three credits in any of the categories of general education only if those three credits are in language study beyond their degree requirements.*
3. Substitute a third course in one of the Breadth Across Knowledge Domains areas of Arts, Humanities, or-Social and Behavioral Sciences, Natural Sciences, or Health and Wellness for a secend course in one of the other areas. For example, a student might take 3 courses in the Arts, courses in the Humanities, and only one course in the Social and Behavioral Sciences.
In another example, a student might take 2 courses in the Natural Sciences and 2 courses in Health and Wellness; or a student might take 2 courses in the Natural Sciences and 3 courses in the Humanities. This substitution is eften referred to as the Move 3 substitution $9-6-3$ sequence, representing the 9 credits, 6 credits, and 3 credits completed in place of the specified 6-6-6.*
4. The use of these two substitutions (No. 2 and No. 3 above), either alone or in combination, may not lead to the complete elimination of any area in the Foundations skills or Breadth Across Knowledge Domains categories in the student's general education program, nor may they be applied to reduction of credits in the same domain.
5. Meet the United States Cultures (US) and International Cultures (IL) requirement through completion of an experiential learning program or practicum (one-semester or year long) approved by their College Dean's Office. Approved Penn State Education Abroad Programs may be used to satisfy the International Cultures (IL) requirement.
6. Meet First-Year Engagement Program requirements through completion of a First-Year Experience offered by any unit of the University. Thus, a student who successfully completes a First-Year Engagement Program in one college or campus, prior to transferring to another college or campus, will not be required to complete another First-Year Experience. However, since there are various modes of offering First-Year Seminars throughout the University, students transferring to a new college may find that a required course that is also a First-Year Seminar must still be taken.
*The use of these two substitutions (No. 2 and No. 3 above), either alone or in combination, may not lead to the complete elimination of any area in the skills or knowledge domains categories in the student's general education program.

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## Appendix B: Revised University Bulletin listing for the Associate Degree General Education Program <br> (http://bulletins.psu.edu/undergrad/generaleducation/generalEd6)

[Existing Bulletin language is shown in regular font. Deletions are marked by crossing-out; new language is in blue boldface.]

## THE ASSOCIATE DEGREE GENERAL EDUCATION PROGRAM

The associate degree General Education program consists of 21 credits that are distributed among two General Education components: (1) Foundations Skills: 6 credits in courses that develop communicative and quantitative skills; and (2) Breadth Across Knowledge Domains: 12 credits in the Natural Sciences, Arts, Humanities, and Social and Behavioral Sciences, with an additional 3 credits in any General Education area.

Associate degree students have a 3-credit requirement and may choose either a United States Cultures (US) course or an International Cultures (IL) course, and must complete a 3 -credit writing intensive course (W).

A restriction is placed on students in majors that are closely linked to the Knowledge Domains areas of Natural Sciences, Arts, Humanities, and Social and Behavioral Sciences, in order to ensure that they participate in the full breadth of General Education. These students may not use a course in their academic major to satisfy one of the Knowledge Domains area requirements. For example, an Economics major may not use an economics course to fulfill his/her social and behavioral sciences requirement.

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ASSOCIATE DEGREE REQUIREMENTS GENERAL EDUCATION

| FOUNDATIONS SKHLLS | credits |
| :---: | :---: |
| Writing/Speaking (GWS) $\dagger$ | 3 credits |
| Quantification (GQ) $\dagger$ | 3 credits |
| total | 6 credits |
| BREADTH ACROSS KNOWLEDGE DOMAINS | credits |
| Natural Sciences (GN) | 3 credits |
| Arts (GA) | 3 credits |
| Humanities (GH) | 3 credits |
| Social and Behavioral Sciences (GS) | 3 credits |
| total | 12 eredits |
| SKILL OR KNOWLEDGE DOMAINS | eredits |
| Any General Education course, including Integrative Studies, can be taken to satisfy these 3 credits | 3 credits |
| total | 15 credits |
| ADDITIONAL REQUIREMENTS | credits |
| United States Cultures (US), or International Cultures (IL) or combined designation-(US;IL) | 3 credits* |
| Writing Across the Curriculum (W, M, X, Y ) | 3 credits* |
| total | 6 credits |
| * May be completed by designated courses that also meet other degree or General Education requirements. <br> $\dagger \mathbf{C}$ or better required |  |

## Flexibility of the Associate Degree General Education Requirements

The General Education program extends the concept of flexibility to all aspects of the degree program. Penn State wants students to use General Education as an opportunity to experiment and explore, to take academic risks, to discover things they did not know before, and to learn to do things they have not done before.

To these ends, students may, with the permission of their adviser and dean's representative:

1. Substitute a 200- to 499-level course for an Arts, Humanities, Natural Sciences, or Social and Behavioral Sciences course found on the General Education list. For example, a student may take a 400-level course in history and use it to meet the General Education requirement satisfied by a comparable lower level history course.
2. Meet the United States Cultures (US) and International Cultures (IL) requirement through completion of an experiential learning program or practicum (one-semester or year long) approved by their college dean's Office. Approved Penn State Education Abroad Programs may be used to satisfy the International Cultures (IL) requirement.
3. Three credits of the required 21 credits of General Education courses are to be selected from any of the following General Education areas: Writing/Speaking, Quantification, Natural Sciences, Arts, Humanities, or Social and Behavioral Sciences.

This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

## Appendix C: Examples of course plans with the proposed General Education curriculum.

In both the existing and proposed curricula, students take 30 credits within the Knowledge Domains. In the proposed curriculum, students will complete 6 credits of Integrative Studies, either thorough inter-domain courses or through linked courses. The proposed curriculum allows students additional flexibility in selecting courses among domains compared to the current program, but still exposes students to breadth across all knowledge domains. Shaded cells represent requirements met via Integrative Studies courses.

Table C1: CURRENT General Education Program


In the current General Education Program, students complete 30 credits in the Knowledge Domains, which are distributed as 9 credits of GN, 6 credits each of GA, GH, and GS, and 3 credits of GHA. Students may use the 9-6-3 substitution among the GA, GH, and GS domains only.

The proposed curriculum introduces a 6-credit Integrative Studies requirement, which can be completed in one of two ways: through two inter-domain courses or through two linked courses.

This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

Table C2: PROPOSED General Education Curriculum, if completed with inter-domain courses.

Proposed General Education Curriculum, completed with inter-domain courses
Please Note: This example shows one of 45 possible inter-domain course combinations.

| Foundations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { GWS } \\ \text { GQ } \end{gathered}$ | 3 credits | 3 credits | 3 credits | Category credits 15 |
|  | 3 credits 3 credits |  |  |  |
|  |  |  |  |  |
| Breadth Across Knowledge Domains |  |  |  |  |
| GN | 3 credits | 3 credits | 3 credits |  |
| GA | 3 credits |  | * additional 6 credits in any Knowledge Domain |  |
| GH | 3 credits | 3 credits |  |  |  |
| GS | 3 credits |  |  |  |  |
| GHW | 3 credits |  | 24 |  |
|  |  |  |  |  |  |
|  |  |  | Explorat | $6^{*}$ |

In this example, the student completed Integrative Studies with an inter-domain course in GN/GA and another inter-domain course in GH/GS. The additional 6 credits of Breadth Across Knowledge Domains can be taken in GN, GA, GH, GS, or GHW.

Table C3: PROPOSED General Education Curriculum, if completed with linked courses.

Proposed General Education Curriculum, completed with linked courses
Please Note: This example shows one of 10 possible linked-course domain combinations.

| Foundations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| GWS | 3 credits | 3 credits | 3 credits | Category credits 15 |
| GQ | 3 credits | 3 credits |  |  |
|  |  |  |  |  |
| Breadth Across Knowledge Domains |  |  |  |  |
| GN | 3 credits | 3 credits | 3 credits |  |
| GA | 3 credits | 3 credits |  |  |
| GH | 3 credits | 3 credits |  |  |
| GS | 3 credits | 3 credits |  |  |
| GHW | 3 credits |  |  |  |
|  |  |  |  | 30 |
|  |  |  | Exploration | 0 |

In this example, the student completed Integrative Studies with linked courses in GS and GHW.

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Table C4: PROPOSED General Education Curriculum, if student used both course options for Integrative Studies.


In this example, the student exceeded the Integrative Studies requirement by completing both linked courses and two inter-domain courses. The additional 6 credits of Breadth Across Knowledge Domains can be taken in GN, GA, GH, GS, or GHW.

## Examples of how students could complete General Education under the current and proposed General Education requirements

Because adding a requirement seems counter-intuitive to increasing flexibility, the following three examples further illustrate how inter-domain courses could expand student choice. Linked courses are not illustrated further, because they do not change existing flexibility for students. Tables C5-C10 compare and contrast how students might complete General Education requirements under the current and proposed requirements. The first example shows a STEM student in a highly prescribed major, the second shows a Bachelor of Arts student, and the third shows a business major pursuing a cultural-area focused minor.

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Table C5: Example of how the current General Education program may be completed by a STEM/Engineering Student in a program subject to ABET-like accreditation requirements

| Skills |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| GWS | ENGL 015 | CAS 100A | ENGL 202C |  |
| GQ | MATH 140 | MATH 141 |  |  |
| Knowledge Domains |  |  |  |  |
| GN | $\begin{gathered} \text { CHEM } \\ 110+111 \end{gathered}$ | PHYS 211 | PHYS 212 |  |
| GA | INART 115 | THEA 100 |  |  |
| GH | HIST 001 | SPAN 003* |  |  |
| GS | ECON 102 | ECON 104 |  |  |
| GHA | NUTR 251 |  |  |  |

* Existing World Language Substitution

Table C6: Example of how the proposed General Education curriculum may be completed by a STEM/Engineering Student in a program subject to ABET-like accreditation requirements
In this example, the student completed Integrative Studies by taking courses that spanned GN/GS and GA/GS. This student used the World Language substitution in place of a GH course.


* Inter-domain courses may satisfy credits for a knowledge domain but they may not be the only credits eamed in a domain
** Exploration
*** Existing World Language Substitution

This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.
Table C7: Example of how the current General Education program may be completed by a student pursuing a Bachelor of Arts degree


* 9-6-3 substitution

Table C8: Example of how the proposed General Education curriculum may be completed by a student pursuing a Bachelor of Arts degree
In this example, the student completed Integrative Studies by taking courses that spanned GN/GS and GA/GHW. The student took two additional courses in the GH domain by using the Move 3 substitution and Exploration credits.

| Foundations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| GWS | ENGL137H | ENGL138T | ENGL 202A |  |
| GQ | MATH 034 | STAT 100 |  |  |
| Breadth Across Knowledge Domains |  |  |  |  |
| GN | BI SC 003 | GN/GS* | --- | LING 001*** |
| GA | INART 115 | GA/GHW* | AF AM 101** |  |
| GH | HIST 001 | HIST 134 |  |  |
| GS | PSYCH 100 | GN/GS* |  |  |
| GHW | HPA 057 | GA/GHW* |  |  |
|  |  |  | Exploration | $3 \mathrm{cr} . \mathrm{GH}$ |

[^11]This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

Table C9: Example of how the current General Education program may be completed by a Business Student who is also pursuing an Asian Studies minor

| Skills |  |  |  |
| :---: | :---: | :---: | :---: |
| GWS | ENGL015 | CAS 100B | ENGL 202D |
| GQ | MATH 110 | SCM 200 |  |
| Knowledge Domains |  |  |  |
| GN | EGEE 101 | EGEE 102 | CHNS 110** |
| GA | COMM 150 | INART 115 | HIST 174* |
| GH | ASIA 100 | ASIA 405Y*** |  |
| GS | ECON 102 | --- |  |
| GHA | KINES 083+ KINES 025 |  |  |

* 9-6-3 substitution
** Existing World Language Substitution
*** Existing upper-level course substitution

Table C10: Example of how the proposed General Education curriculum may be completed by a Business Student who is also pursuing an Asian Studies minor In this example, the student completed Integrative Studies by taking courses that spanned GN/GHW and GA/GS. The student used a World Language substitution, and took Exploration courses in the GH and GHW domains.


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## Appendix D: Examples of the Move 3 substitution.

| Domain | Required Credits | Credits allowed with Move 3 Substitution |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Example 1 | Example 2 | Example 3 | Example 4 | Example 5 | Example 6 |
| GA | 6 | 9 | 6 | 3 | 6 | 6 | 3 + SPAN 100 |
| GH | 6 | 6 | 9 | 6 | 6 | 6 | 9 |
| GS | 6 | 3 | 6 | 6 | 9 | 6 | 6 |
| GN | 9 | 9 | 6 | 9 | 9 | 6 | 6 |
| GHW | 3 | 3 | 3 | 6 | 0 | 6 | 3 |
| Allowed? |  | OK <br> (follows current 3-69) | OK | OK | NO (eliminates GHW domain) | OK | OK (with Foreign Language substitution) |
| Where | 3 move? | GS to GA | GN to GH | GA to GHW | GHW to GS | GN to GHW | GN to GH |

This report was approved on April $14^{\text {th }}$ by Senate Council to be placed on the April 28th Faculty Senate agenda.

## Appendix E: Estimated ranges for the additional cost of the proposed General Education revisions beyond the cost of the current General Education program

|  | Range |  |
| :---: | :---: | :---: |
|  | Low | High |
| Start-up Costs |  |  |
| Adviser/Faculty training | \$10,000 | \$30,000 |
| Development \& design of material for incoming students/NSO (assistance from StratCom?) | \$5,000 | \$10,000 |
| Faculty and staff time for curriculum development and revision ${ }^{1}$ | \$170,000 | \$425,000 |
| Total Non-recurring Start-up costs | \$185,000 | \$465,000 |
|  |  |  |
| Annual - Ongoing Costs |  |  |
| Instruction: |  |  |
| Instructional Capacity for additional sections for students who earned a "D" in a GQ or a GWS courses to retake the course | \$575,000 | \$2,800,000 |
| Offering more 200-level courses and fewer 100-level courses - 110 net new sections due to smaller average section size for 200 -level courses (assumes all Integrative Studies courses are 200-level) | \$440,000 | \$2,300,000 |
| Ongoing faculty development for Integrative Studies ${ }^{2}$ | \$1,488,000 | \$4,464,000 |
| Instruction Sub-Total | \$2,503,000 | \$9,564,000 |
| General Education Support Structure ${ }^{3}$ |  |  |
| Director and Staff | \$236,250 | \$310,500 |
| Gen Ed innovation and Quality Improvement Grants | \$200,000 | \$400,000 |
| Assessment ${ }^{4}$ | \$90,000 | \$135,000 |
| Operating funds - technology, travel between campuses, campus liaisons, conference attendance, etc. | \$60,000 | \$80,000 |
| General Education Support Structure Sub-Total | \$586,250 | \$925,500 |
| Total Ongoing Costs | \$3,089,250 | \$10,489,500 |

This cost estimate was presented to and discussed with Provost Jones on April 14, 2015.
${ }^{1}$ UP delivered 650 General Education Courses in Fall 2012-13. Assuming that campuses are delivering the same Gen Ed courses, course development/revision would be needed for the $13 \%$ of these courses that would need to be Integrative Studies ( $650 \times 13 \%=85$ courses).
${ }^{2}$ Faculty development for Integrative Studies is estimated at $\$ 4,000 /$ section for $25 \%$ of Integrative course sections (low) and $75 \%$ of sections (high).
${ }^{3}$ On January 27th, the Faculty Senate voted to approve a standing General Education Support Structure to function as an engine for collaboration, innovation, assessment, and research in General Education. This budget assumes a need for a faculty director and two staff members, one with significant experience in assessment, in addition to a standing budget to fund grants for faculty proposals to develop innovative curriculum. Funding priorities should be given to proposals that will significantly improve general education at Penn State, scale to the university level, and be competitive for funding from external sources.
${ }^{4}$ The current CAT assessment employs faculty at $\$ 300$ each to score the assessment. If the same method were used annually for assessing two learning objectives, involving 30 faculty from five units, the estimated cost of appropriate compensation for faculty scorers is about $\$ 90,000$.


[^0]:    ${ }^{1}$ Appendix VII: Final Report and Recommendations of The Special Committee on General Education to the University Faculty Senate (December 2, 1997) Goals.

[^1]:    ${ }^{2}$ A General Education Conversation (August 28, 2012) discussed during a forensic session during the Faculty Senate plenary meeting October 16, 2012; A Progress Report to the University Faculty Senate (October 21, 2014) contains a summary of key references: http://senate.psu.edu/senators/special-committees/general-education-planning-and-oversight-task-force/reports-and-resources/. Key studies include: Gaston, Paul L. et al. General Education \& Liberal Learning: Principles of Effective Practice. Association of American Colleges and Universities, 2010.; Miller, Gary E. The Meaning of General Education: The Emergence of a Curriculum Paradigm. New York: Teachers College Press, Teachers College, Columbia University, 1988.; The National Leadership Council for Liberal Education \& America's Promise. College Learning for the New Global Century. Washington, D.C.: Association of American Colleges and Universities, 2007.; The National Task Force on Civic Learning and Democratic Engagement. A Crucible Moment: College Learning \& Democracy's Future. Washington, D.C.: Association of American Colleges and Universities, 2012. Print.; University of California Commission on General Education in the 21 st Century. General Education in the 21st Century. Center for Studies in Higher Education, University of California, Berkeley, 2007. In addition, a substantial body of scholarship on General Education can be found through the Association of American Colleges \& Universities (https://www.aacu.org/resources/generaleducation/publications).

[^2]:    ${ }^{3}$ In some disciplines, the terms "goal" or "outcome" may be used to convey this concept. The term "objective" is used in this manner by the Schreyer Institute for Teaching Excellence at Penn State. www.schreyerinstitute.psu.edu/tools/programassessment/definitions.

[^3]:    ${ }^{4}$ Appendix VII: Final Report and Recommendations of The Special Committee on General Education to the University Faculty Senate (December 2, 1997) Goals.

[^4]:    ${ }^{5}$ Senate Record from January 27, $2015 \mathrm{http}: / /$ senate.psu.edu/wpcontent/uploads/sites/13525/2014/06/012715record4pdf.pdf
    ${ }^{6}$ Letter from President Barron to Senate acknowledging receipt of the Advisory and Consultative Report from Jan 27, 2015 (http://senate.psu.edu/wp-content/uploads/sites/13525/2015/01/Inst.-Support-and-Resources-for-Gen-Ed-Barron-letter.pdf)

[^5]:    ${ }^{7}$ Report to the Assessment Coordinating Committee of the Administrative Council on Undergraduate Education (ACUE) on the Pilot Test Administration of the Critical Thinking Assessment Test. Report submitted to ACUE, October 3, 2012.

[^6]:    ${ }^{8}$ Health and Wellness—Retreat Report. http://gened.psu.edu/2015/01/18/health-and-wellness-retreatreport/

[^7]:    ${ }^{9}$ Data supplied by College of Liberal Arts, Dept. of English, Padma Patil, Memo dated August 5, 2014.
    ${ }^{10}$ Data supplied by the Registrar's office February 2015.

[^8]:    ${ }^{11}$ Fall 2014 ALEKS Math Placement: Implementation, Outcomes, and Recommendations, Report submitted to ACUE, March 5, 2015.
    ${ }^{12}$ The National Leadership Council for Liberal Education \& America's Promise. College Learning for the New Global Century. Washington, D.C.; The National Task Force on Civic Learning and Democratic Engagement. A Crucible Moment: College Learning \& Democracy's Future.

[^9]:    ${ }^{13}$ Flexibility in the Baccalaureate Degree General Education Requirements. http://bulletins.psu.edu/undergrad/generaleducation/generalEd5

[^10]:    ${ }^{14}$ UP Current: ( $\$ 7,052 \times 39,847$ )/4yrs $=\$ 70.25 \mathrm{M}$
    ${ }^{15}$ UP Estimated: $(\$ 7,256 \times 39,847) / 4 \mathrm{yrs}=\$ 72.3 \mathrm{M}$
    ${ }^{16}$ Altoona Current: $(\$ 6,866 \times 3,804) / 4 y r s=\$ 6,529,600$
    ${ }^{17}$ Altoona Estimate: $(\$ 6,997 \times 3,804) / 4 \mathrm{yrs}=\$ 6,654,100$

[^11]:    * Inter-domain courses may satisfy credits for a knowledge domain but they may not be the only credits eamed in a domain.
    ** Exploration
    *** Move 3 substitution

