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1. Introduction

In October of 2012, President Tripathi in his annual State of the University Address charged Provost Zukoski to lead a campus-wide effort to formulate an implementation plan for the next phase of UB 2020. The Provost immediately engaged the entire university community in a dialogue that was finalized and published in October 2013 as “Realizing UB 2020: Achieving Academic Excellence.”

To develop and refine the many recommendations resulting from the Realizing UB 2020 campus conversation, the Provost chartered seven task forces in summer of 2013. Each was charged with specific initiatives as outlined in Realizing UB 2020. The Curriculum and Assessment Task Force was convened with the following charge:

“The Curriculum and Assessment Task Force will develop and oversee the implementation of curricular innovations that achieve the outcomes we promise every UB student. The Task Force also will propose new and more extended processes of assessment to measure the success of our curriculum in meeting desired educational outcomes.”

Membership in the Curriculum and Assessment Task force represented faculty, staff, and leadership from across the university. Membership included: A. Scott Weber, Senior Vice Provost for Academic Affairs who served as Chair; Arjang Assad, Dean, School of Management; Robert Burkard, Professor and Chair of Rehabilitation Sciences; Elaine Cusker, Associate Dean of Undergraduate Education; Greg Dimitriadis, Professor and Associate Dean for Academic Affairs in the Graduate School of Education; Stephen Dunnett, Vice Provost for International Education; John Ho, Vice Provost for Graduate Education; Lynn Kozlowski, Dean, School of Public Health and Health Professions; Marsha Lewis, Dean, School of Nursing; Bruce Pitman, Dean, College of Arts and Sciences; Andrew Stott, Professor of English and Dean of Undergraduate Education; Barbara Ricotta, Associate Vice President for Student Affairs; and Carol Van Zile -Tamsen, Associate Director of Accreditation and Assessment.

Task Force Process and Deliverables

Given the scope of its charge and the timeline for its recommendations, it was determined that the Task Force should be divided into five working subcommittees (each with a limited scope) to examine and evaluate the needed recommendations to achieve the targeted initiatives. A guiding principle in this approach was to use, where possible, existing faculty/staff structures, to assist the Task Force in assessing the current status of UB relative to its charge, and to put forth concrete proposals for implementation. Task Force members served as the liaisons between the subcommittees and the Task Force. With this model, more than 100 additional UB faculty and staff, beyond the Task Force membership, contributed to developing the recommendations in this report. The five subcommittees and their deliverables were:

General Education

Review UB’s current General Education program and recommend changes to ensure that the outcomes reflect the university mission and the goals of Realizing UB 2020 while also meeting SUNY requirements and Middle States expectations. As part of their work, the General Education subcommittee considered the global experience, capstone, and experiential learning expectations as described in Realizing UB 2020.
Global Experience
Determine the current state of global experiences in all of UB’s programs and review whether the opportunities or requirements are appropriate and consistent with the university mission and the goals of *Realizing UB 2020*.

Pedagogical Innovation
Provide an overview of UB’s current support for pedagogy and whether and how the university can foster this culture within our programs as well individual faculty ambitions to develop new instructional methods consistent with national best practices.

Academic Assessment
Develop approaches to affirming and supporting the campus expectation that all programs will delineate and assess outcomes using direct and indirect methods that consider how well these programs are achieving their stated aims and their alignment with the larger mission and goals of the university.

Inter-Professional Education
Define the aims and needs for promoting a strong program of inter-professional education and the requirements these pose for the curriculum in the related disciplines.

Task Force Timeline
The Task Force first met on August 22, 2013 and continued to meet periodically through the fall 2013 semester to refine its charge, delineate an approach and formulate recommendations relative to the curriculum and assessment goals in *Realizing UB 2020*. In parallel, the subcommittees outlined earlier met to investigate their charge and devise recommendations for consideration by the Task Force. The Curriculum and Assessment Task Force delivered its final recommendations to the Provost on December 20, 2013.

Task Force Report Organization
This report is organized with an introductory chapter that includes the charge, membership and processes used to carry out the Task Force mandate. Chapters that outline, in brief, the recommendations of each subcommittee and their relation to the Realizing UB 2020 goals follow this introduction. A summary chapter is provided and includes general observations and context from the Task Force on each major recommendation. In addition, a comprehensive chart, which classifies all Task Force recommendations in a Task Force wide agreed upon schema is presented. After the main body of the report, Appendices are provided that include the membership of each contributing subcommittee and their full report.
2. Moving UB General Education Forward

In May 2013, Provost Zukoski in collaboration with the Faculty Senate charged a committee to be formed to revise the General Education program at UB. The committee, chaired by the Dean of Undergraduate Education, was asked to build a program that specifically addressed three connected issues:

1. The curricular innovations that comprise part of the Provost’s Realizing UB 2020 initiative, specifically the call to strengthen key communication skills among the undergraduate population, the concepts of a capstone course, a freshman seminar, and experiential learning, and to infuse the curriculum with the institutional themes of Health, Humanity, Innovation, Justice, and Environment.
2. A desire to build upon the work of the 2009 General Education Task Force charged by then-Provost Tripathi.
3. A program that met the requirements of SUNY General Education as promulgated by the SUNY Board of Trustees in January 2010.

The committee, comprised of faculty and staff from across the institution, began deliberations with an all-day May 2013 retreat, followed by weekly two-hour meetings throughout the fall. This committee assumed the dual role as a subcommittee of the Curriculum and Assessment Task Force in August 2013.

A New General Education Program is Needed

The Provost’s Committee on General Education found that the present program of General Education at UB – while not without merit – lacks the coherence, dynamism and content that students both need and deserve at a world class institution. The committee recommends that the structure of the current program be discontinued and replaced with a design that provides shared experiences and purposeful pathways through the program that will help students to understand what they are learning and why. Such a program would model the benefits of integrative learning while emphasizing key foundational skills, including critical thinking and a strong communication core, and issues pertaining to internationalization and diversity, experiential learning as well as innovative pedagogy.

The committee framed the mission of the new program as:

*The mission of UB’s Core Education curriculum is to foster learning for college and for life.*

*Building upon a solid basis in essential competencies, students will develop the skill to navigate the intersections and interrelatedness of ideas and fields of study. They will develop an integrative approach to producing knowledge through the exercise of critical judgment, collaboration, synthesis and analysis.*

*The program will draw upon the full resources of a comprehensive research university and embrace a global perspective that seeks to instill in its students an appreciation for human and cultural diversity. It will promote a commitment to civic engagement. It will be a program that excites the imagination, primes the appetite for lifelong learning, and carries within it the distinct identity of the University at Buffalo.*

In addition, the committee identified four key terms that it considered central to the mission of a new program. They are ‘integrative’ – learning that requires students to transfer, synthesize, and reflect upon knowledge from one area to another; ‘global’ – learning that engages with complex, interdependent global systems and legacies; ‘comprehensive’ – a program that leverages our strength as the most comprehensive university in New York state; and ‘lifelong’ – instilling knowledge that will serve for life, but also inculcating the desire to be a lifelong learner.
Components of the Proposed Core Education Program

To achieve the desired outcomes, a program having a minimum of 40 credits, consisting of four discrete but interrelated components (see report for full details) extending across an undergraduate career is proposed. The essential components are:

1. **First Year Seminar (3 credits):** Mandatory faculty taught freshman seminar focused on ‘Big Ideas’; develop critical thinking and ethical reasoning; introduce e-portfolio and integrated themes.

2. **Foundation Courses:** Conceived as a suite of classes that provide a strong basis in quantitative reasoning, communication skills, and scientific method.
   a. **Quantitative Reasoning (4 credits):** A numeric literacy course that looks at questions of data and statistical analysis through a case study approach.
   b. **Communicative Literacy (8 credits):** A two-course sequence of courses conceived to build strong communication skills across a variety of settings, genres and media.
   c. **Scientific Inquiry (4 credits):** A course that conveys the nature of scientific inquiry through cases studies drawn from different fields to develop an appreciation for scientific inquiry, and varying scientific methodologies.

3. **Integrated Learning:** Two linked clusters - one from the RUB 2020 themes and one in international studies.
   a. **Themed Cluster (min. 9 credits):** A focus on one theme with explorations within and between the disciplines;
   b. **Themed Cluster: ‘The World and You’ (min. 9 credits):** Provisionally, “the World and You” will apply to internationalization and diversity themes.

4. **Ongoing e-Portfolio (3 credits):** A means for making integrative connections with mindful reflection and self-assessment through the adoption of an electronic method to collect material and evidence using a wide variety of media. The e-portfolio serves as an integrative experience thus satisfying the intent of the capstone experience called for in RUB 2020.

Implementation Timeline and Investments

The committee recommends that multiple subcommittees be formed in spring 2014, responsible for the definitive refinement of the objectives, learning outcomes, and logistics of each element of the proposed program and evaluating the needs relative to transfer students, assessment, and marketing. A Core Education steering committee comprised of chairs of the above subcommittees would be formed to help guide the discussion. These subcommittees will finalize and publish their work for campus-wide review in by the beginning of fall 2014.

During the 2014-2015 academic year campus-wide consultation and refinement of the plan would take place. This consultation would be under the leadership of the Dean of Undergraduate Education and supported by a new office of Core Education. This office would be responsible for the full implementation program, including managing new course proposal and approval process through the 2015-2016 academic year. The program would launch in Fall 2016 with its first class graduating in 2020.

Finally, the budgetary implications of the proposed core education program are complex and beyond the scope of this report. New investments will be needed and the program will likely result in a redistribution of existing resources between units. An implementation team will need to work through these implications immediately to insure the early commitment of needed resources.
3. Achieving a Significant UB International Experience

The Realizing UB 2020 Curriculum and Assessment Task Force invited the Council on International Studies and Programs (CISP) to provide recommendations specific to one of the Task Force deliverables: "Create the structure and implementation plan for the global experience requirement." This item refers to a statement in Realizing UB 2020 that a “requirement for all degree programs will be some form of international experience or sustained exposure to global cultures.” UB’s international activities, programs and commitments represent a key component of identity and strength. A globally-minded, multicultural institution situated on a major international border, its faculty engaged in research and teaching with colleagues around the world, its student recruitment reaching across the continents, UB has, through its strategic internationalization plan, committed itself to the challenge of globalization. Yet the educational experience of the average domestic student at UB currently does not reflect these core commitments. If internationalization is to be fully realized, it must become an intrinsic part of the worldview instilled in each of our students.

One way to ensure that UB really does prepare students to be global citizens, in keeping with its institutional identity and values, is to implement the Realizing UB 2020 requirement that all of our students have some significant international experience (SIE) before they graduate with a UB degree. An SIE is potentially transformative, substantially broadens the student’s understanding of the world and his or her place in it, makes the student better able to understand and respect people from other countries and cultures, and enhances the student’s ability to participate in the global system on more equal terms with students from other countries. The SIE requirement should produce globally-minded students who better understand the world and can appreciate, respect, and successfully interact with people from different countries and cultures. Such students will participate more successfully in the global system and will be better prepared for fulfilling careers in a rapidly changing social and economic environment.

The experience should not be limited to conventional course work but involve meaningful engagement with other cultures and social systems. The ideal form of engagement involves travel to and study in another country, but that goal may not be achievable for all or most students. Even for those who do not travel outside the United States, however, the cross-national dimension of the experience is crucial. It should be remembered that UB’s proximity to Canada offers numerous opportunities to explore a non-U.S. country that is distinctive in many ways.

Recommendations

The Council recommends that the SIE be implemented subject to the following considerations:

- All SIEs should be significant, international, experiential and require prior approval.
- Students can fulfill their SIE requirements through centrally administered SIEs, which would need to be expanded to meet increased demand. These include study abroad, Global Scholars, Global Perspectives Undergraduate Academy, Canadian programming, internships with international NGOs, service programs in international or cross-cultural environments, experiential learning courses with global content, and global integration experiences.
- To meet the increased need especially for graduate and professional programs, academic units should develop additional SIEs that would fulfill student interest and be program consistent.
- Incoming freshmen should be required to get a passport as part of their SIE requirement.
- Students should have the flexibility to meet the SIE requirement by combining more than one international experience.
- All SIEs should be assessed formally to evaluate achievement of learning outcomes.
- Investments will be needed to evaluate approval, assess, and track completion of SIEs.

Impact
Implementation of the SIE requirement will put international experience at the center of a UB education, and afford all UB students the opportunity to gain appropriate preparation for lives and careers in the globalized world of the 21st century. UB’s curriculum and programs will take on a new and decisive international orientation that they have lacked previously, and take better advantage of UB’s large and diverse international community to foster increased integration of international students and enhance the cross-cultural awareness of domestic students.

Students will view international experience and the acquisition of global competencies, not as a marginal activity as it has been hitherto, but as an essential and expected part of their UB education. The global perspective students acquire at UB will inspire increased interest in scholarly and service opportunities such as Fulbright and Peace Corps.

UB will be rightfully recognized as a national leader in this respect. UB’s distinctive SIE requirement will also bolster the university’s public profile and will benefit recruitment efforts, as prospective students recognize the value of such experience in preparing them for future careers in a globalized economy. They will choose UB for enhanced learning opportunities such as the SIE. Only a few peer institutions in the AAU, including Ohio State, Michigan State and Georgia Tech, have developed global experience requirements.

As stated in Realizing UB 2020, UB aspires to go a step further and mandate its requirement for all students, not just undergraduates. All students—in all programs and at all levels—will benefit from the new international dimensions of their programs at UB.

Implementation Timeline, Exceptions and Investments
SIE experience requirements should begin with incoming freshman in fall 2014. Transfers, and graduate and professional students should be subject to the requirement at a later stage (by fall 2018 is suggested) to allow time for appropriate unit-based SIEs to be developed.

There was considerable discussion about the SIE requirement for students in certain graduate programs, especially those lasting a year or less. For these students, it may be appropriate to offer a waiver. International students should be subject to the requirement, though they should have customized options including co-curricular activities that integrate them with domestic students.

While not quantified in sufficient detail to provide a monetary figure at this time, significant investments will be needed to develop new and expand current SIEs to meet the needs to achieve a significant international experience for all students. Staff support will be needed to track student progression in the achievement of their required SIEs. In addition, if the University endorses the passport requirement for all freshmen, this will need to be resourced.
4. **Moving UB Educational Innovation Forward**

The Realizing UB 2020 Curriculum and Assessment Task Force established the “educational innovation” subcommittee as one of five subcommittees. This group’s concerns most closely align with the charge that “The university will build a central infrastructure that can support a wide range of faculty teaching and learning initiatives across the campus, regardless of discipline, to prototype new methods of teaching and learning . . .” and to “help faculty reimagine the teaching and learning experience in their respective offerings.” This charge stresses the role of new digital tools but is not limited to them. Based on the deliberations of the subcommittee, a three-tiered approach to educational improvement and innovation, beginning with a foundational level designed to meet the needs of all instructors, a signature level designed to facilitate the creation of innovative teaching across UB, and a global effort designed to move innovation in teaching to a level of prominence widely recognized nationally and internationally, is recommended.

**Foundational Recommendations and Impact**

Teaching and learning initiatives should support the improvement of teaching as well as supporting pedagogical initiatives undertaken by the campus – e.g., the new General Education requirements. These initiatives will build institutional expertise in a variety of foundational pedagogical issues. For example, services may include, but are not limited to, private consultations by faculty looking for help on issues that include instructional design for course development and delivery as well as observation programs for faculty who want feedback on their classroom practice. These initiatives also include support for the use of new and existing technological infrastructure, which cannot be separated from pedagogy/andragogy. For example, these initiatives can help faculty who have needs related to specific technological issues such as supporting “hybrid” classes as well as assistance with UBlearns to enable and fuse their pedagogical plans with the technological delivery of learning.

Recommendations at this level include: a) fully articulating the relationship between support for basic pedagogical needs and technology use at UB; b) developing basic pedagogical support on a level equal or exceeding those of peer institutions; c) developing a faculty-friendly platform for online delivery that easily lend itself to “hybrid” instruction; d) developing a clear mission and range for the slate of instructional activities the teaching center will provide e) creating a faculty advisory committee to reflect the faculty priorities in carrying out this mission; f) instituting focused program on teaching and learning effectiveness for all new TA’s; g) taking full advantage of UB’s existing mentoring policies for all teaching faculty; h) making sure that all new faculty receive a mentoring experience in teaching.

**Signature Recommendations and Impact**

If UB is to move beyond supporting its faculty and graduate students in their existing and growing efforts in the classroom (seated and otherwise), UB also can provide opportunities to help catalyze creative thinking about innovative pedagogy. At this level, a significantly greater part of the projects under this initiative’s activities need to be driven by active and creative input from the faculty. These efforts would be more transformative in nature. That is, these efforts would be concerned not only with *improving* pedagogical/andragogical practice at UB but also potentially *transforming* it in ways that are not yet (and cannot be) defined. This level would begin to address more explicitly the concern with innovation outlined in Realizing UB 2020.

In addition to providing basic support for improving pedagogy/andragogy, this initiative would then serve and support faculty members when they have an innovative, pedagogical idea and seek to see it developed and suitably disseminated for greater impact. These innovations would ideally spread across the
university and motivate others to further new ideas or build upon existing ideas that are taking root. We anticipate this work would lead to innovative, cross-disciplinary work. It would be a “bottom up” effort to support innovation. The committee strongly believes that truly innovative ideas are emergent and unpredictable. UB should create the conditions where such work can emerge but cannot director mandate it from above. This initiative could include a series of grant proposal mechanisms that might take various forms. These grants could be in the $3,000-$10,000 range depending upon scope and scale. At later stages of dissemination, and for projects of higher impact, larger investments may need to be considered.

Specific recommendations at this level include a) instituting a small grants program to spur faculty innovation on pedagogy; b) constituting a faculty advisory committee with full time faculty chair and administrative support; c) developing Faculty Learning Communities to disseminate ideas and spur interdisciplinary thinking.

Prominence Recommendations and Impact
If this discussion is to move beyond UB, there is a need to expand this initiative to broader discussions embedded in the current and emergent research literature and priorities of granting agencies. Mechanisms that encourage serious research on teaching and learning and that will have significant impact on campus and merit national and international recognition are needed. As reported by the National Academy of Sciences, several granting agencies are taking these questions more seriously and we will be better posed to put together teams to take advantage of these opportunities. To develop these mechanisms, it is proposed that UB provide dedicated support for faculty who want to apply for external grants (e.g., NSF, NIMH, NIH, DOE, etc.) for projects related to teaching and learning. Specific recommendations at this level include hiring dedicated staff to help identify and facilitate grant/research opportunities on teaching and learning.

Implementation Timeline and Investments
The foundational recommendations put forth should be implemented during the spring and fall of 2014. Establishing the grants program, advisory committee and the development of Faculty Learning communities called for in the signature recommendations should be completed by the end of the 14-15 academic year. Should the university embrace the prominence recommendations of the Task Force, these staff should be in place by the start of the 2015-2016 academic year.

Investments needed to implement the recommendations regarding enhancing pedagogical innovation at UB primarily involve staffing, funding for the small grants programs and some additional investments in hardware and software. The full extent of this investment need still require refinement as a full review of the current Teaching and Learning Center capabilities is being conducted. However a preliminary assessment is that an additional three to five staff in key areas would be a strong start to move forward with the foundational and signature recommendations. In addition, an initial fund of between $25,000 and $50,000 would be appropriate to initiate the small grants program.
5. Moving UB Educational Assessment Forward

UB must embrace quality curricular assessment and a culture of continuous improvement at all levels to ensure that educational programs not only continue to thrive but also achieve the goals for curricular excellence, innovation, and distinctiveness as called for in Realizing UB 2020: Achieving Academic Excellence. Departments are motivated to reflect and improve upon their programs and also feel external pressures like competition for students and calls for accountability in higher education. Many examples of quality assessment practices and information-based decision making models can be found throughout the University's many and diverse academic programs. However, a comprehensive assessment infrastructure is required to ensure the culture of assessment and continuous curricular improvement becomes a pervasive characteristic of UB. This infrastructure should be built upon consistent, strong messages from senior leadership about their commitment to assessment and improvement processes that are integrated across the university and foundational in all units.

Core to any effort to move UB Academic Program Assessment forward are the following outcomes that UB should seek:

1. A clear, standards-driven program assessment mandate for all academic units on campus.
2. Centralized leadership and expertise in the areas of curricular design, assessment methods, and course and program improvements.
3. Centralized monitoring of program assessment efforts for the purposes of external reporting.
4. Development of a collaborative of faculty engaged in quality program assessment efforts and using assessment information to improve programs and courses (i.e., “close the loop”) and as an avenue for scholarship.
5. Development of a pervasive culture of assessment and continuous curricular improvement.

 Appropriately resourcing, staffing and tasking the Office of Assessment within the Office of Educational Innovation and Assessment can accomplish these outcomes. The following prominence and signature recommendations will ensure that the appropriate infrastructure and processes are in place to achieve these outcomes. Addition of a prominence recommendation related to a Center for Student Assessment and Evaluation, if implemented, would enable UB to gain national and international prominence in the areas of student learning assessment and curricular improvement.

**Foundational Recommendation and Timeline**

Empower the Office of Assessment with sufficient staffing, technology, and financial resources to monitor and support the assessment work of the twelve decanal units, including the Annual Program Assessment Report process and Comprehensive Program Review; the General Education Program; and the overall assessment of student learning according to the eight core learning capabilities of UB graduates. In light of immediate needs in the area of curricular assessment related to the impending Middle States Site visit, the Committee suggests that these mission-critical recommendations be implemented within the next four months.

The Office of Assessment will implement the mandate for systematic and ongoing academic assessment in all academic units on campus, including the Annual Academic Assessment Report Process and Comprehensive Program Review, the General Education program, and overall assessment of student achievement of the eight core capabilities, by providing expert resources and support to academic units and faculty members within those units, serving as the repository for annual assessment reports and fulfilling official reporting requests for external accrediting bodies. Further, the Office will foster a culture of assessment by coordinating the appointment of unit assessment liaisons using a common assessment
language, engaging faculty in assessment networks, and restructuring the membership and duties of the Institutional Standing Committee on Assessment.

These recommendations are essential for UB’s continuing progress in the area of program assessment, and the Committee recommends that a plan be developed to implement each of these within the next twelve months.

**Prominence Recommendation and Timeline**

Because of calls for accountability and the urgent need for institutions of higher education to demonstrate their impact on student learning and achievement, assessment of student learning and curricular effectiveness is a national issue. As a premier research institution, UB has the potential to build on a very strong Office of Assessment and create a research Center for Student Assessment and Evaluation to impact the national dialog around curricular assessment and improvement. Such a center also would contribute to the crystallization of UB’s culture of assessment.

The proposed UB Center for Student Assessment and Program Evaluation is unique in that it will be both service- and research-oriented and will focus on student assessment, faculty evaluation and program evaluation. Specifically, this comprehensive center can be distinctive in its focus on standardized development of assessment instruments and dissemination of information due to the existence of faculty at UB with internationally recognized expertise in this area. However, this center is a project that can only begin to develop once the base of UB’s Office of Assessment is in place.

**Impact**

UB is behind its peers in the centralized support of assessment efforts, monitoring of assessment work, and development of a culture of assessment and continuous improvement. Our Middle States site team chair has given us clear direction of where we need to be as a university when the site team arrives in March 2014. It is imperative that we implement the mission-critical recommendations presented here and develop an implementation plan for the signature recommendations well in advance of that site visit. With the foundation of a very strong Office of Assessment in place, the Center of Student Assessment and Evaluation can become a reality and bring national and international prominence to the institution.

**Investments**

A core of qualified staff housed together in an appropriate location; funds to provide learning opportunities and recognition to faculty, a pool of money to invest in programs based on the results of assessments, and seed money for assessment research are needed to resource the recommendations.
6. Inter-Professional Education Within and Beyond the Health Sciences

Inter-Professional Education (IPE) is being proposed in health care education to increase the value (Quality/Cost) of service delivery in health care. While it is imperative that we continue to educate/train our clinicians to deliver those services as professionals within their specific disciplines, it is also evident that the siloed approach to education has resulted in suboptimal outcomes, as well as high costs. A fundamental assumption of IPE is that if health professionals train together, and work as a team, the practice and delivery of care will be enhanced. One would expect to drive costs down while maintaining or even improving outcomes. To make recommendation that establish IPE as a central core at UB both within and beyond the Health Sciences, a subcommittee of the Curriculum and Assessment Task Force explored this issue.

IPE Within the Health Sciences at UB

The mission of the Office of Inter-Professional Education and Collaborative Practice (OIECP) is to prepare the health professions students to be “collaborative-practice ready” when they enter the workforce. Over the last few years, UB (and more recently the OIECP) have been engaged in activities to support IPE for our students. Perhaps the most visible effort was the creation of the Behling Simulation Center. The Task Force believes that the implementation and assessment of IPE in the Health Sciences should be explicitly recognized as one of the priorities of Realizing UB 2020. Specific recommendations regarding IPE in the Health-Related Professions include:

1. Fiscally support the education and training in IPE for select staff and interested faculty.
2. Include ALL health-related professions programs in the current Academic Health Center IPE activities, including Communicative Disorders & Sciences and Psychology, in the College of Arts & Sciences
3. Work on identifying periods of time within the calendar year that are dedicated to IPE, so as to enable all Health-Related Professions students to meet at the same time for “true-to-life” Inter-Professional education activities. This might include: several select days each calendar year, weekends, evening, winter or summer sessions. Perhaps in the future combining IPE with online learning could be used to enhance IPE opportunities.
4. Provide (and fund) several hours of simulation time per student, when relevant for the professions, for a true IPE experience.
5. Integrate research and scholarship for both faculty and students as an integral part of the IPE initiative. There is limited carefully controlled empirical research that has demonstrated the IPE leads to improved IPP, and that IPE improves the VALUE in health care. UB could build its distinction by focusing on assessment and evaluation. Furthermore, there are few valid and reliable instruments that assess the value of IPE. Development of instruments would contribute to the evidence.

Seek extramural support sources for our IPE initiatives. Foundations and federal funding sources have and presumably will continue to fund IPE initiatives

IPE Beyond the Health Sciences

The subcommittee recognizes that the more generalized use of IPE beyond the health sciences is the key part of its charge. It is now commonplace that certain team and communication skills are essential to the effective delivery of services; indeed, the IPEC core competencies include communication and team building. Below, two domains for IPE beyond the Health Sciences are identified. First, IPE for Collaborative Community Engagement (IPECCE) is outlined and then broader applications involving system-wide considerations are developed. For the purposes of this report, the latter area is called Inter-
Professional Education for System-Wide Effectiveness (IESWE). Recommendations for the two IPE domains of Collaborative Community Engagement (IPECCE) and System-wide Effectiveness (IESWE) are:

1. Engage Faculty/ Identify Target Areas: Non-health-related IPE will require innovative design and committed faculty. Since the creative engagement of faculty from interacting disciplines is key to the value of IPE across disciplines beyond Health Sciences, UB should identify faculty champions within these disciplines that are excited about this mode of education.
2. Create an awards competition, where cross-disciplinary groups propose IPECCE/IESWE pilots to evaluate the benefits and potential barriers of IPE for specific target disciplines and content areas. This could include an annual poster session on pilot projects in IPECCE/IESWE.
3. UB should consider identifying blocks of time within the academic calendar where IPE exercises can take place. This will be required if the students from different disciplines are required to interact.
4. The design of a non-health-related IPE module that is highly experiential may fit well within the capstone and experiential goals for undergraduate education.
5. Consider the development of some resource materials on non-health-related IPE that could be shared widely across UB (possibly through on-line delivery). The communication and teamwork modules of Health Sciences IPE may provide a good start for this.
6. Leverage the Realizing UB 2020 themes: Challenge faculty to propose simulations of real-world situations incorporating key contents from one or more themes. Students can problem-solve together and identify issues that could benefit from the perspectives of a number of disciplines.

Impact

Implementation of IPE within the health sciences for all students will create an environment for UB faculty to embrace and be guided by the principles and practice of IPE. Through this investment, UB faculty will create the IPE assessment tools needed to demonstrate valid learning outcomes and demonstrate through interdisciplinary research that IPE enhances the value of clinical practice. Further, UB health professions students will learn how to deliver healthcare as members of a team. UB will demonstrate innovation and national leadership in IPE by developing signature programs outside of health care. In doing so, UB will be recognized in a leader in the experimental investigation of the value of non-health-related IPE in terms of learning how to work in teams and how to effectively communicate with others working in those teams.

Implementation Timeline and Investments

The University must immediately work to create times in the academic calendar to make it possible for students in different departments to come together for IPE experiences. Beginning in 2014, ALL professional students in the Health Sciences should come together as meaningful teams to learn together in an IPE experience. This should include some time in the Simulation Center, and this will cost perhaps $200,000-$300,000 per year. Starting in 2015, efforts aimed at initiating a grant competition for non-health-related IPE initiatives should be started. It is anticipated that the annual cost of this initiative would be $100,000-$150,000 per year.
7. Overall Summary of Recommendations

The Curriculum and Assessment Task Force, constituted under Realizing UB 2020, is indebted to the many UB staff, faculty and administrators that worked collaboratively to bring forth the recommendations highlighted earlier in this report and detailed more fully in their individual subcommittee reports attached as appendices. In addition to the Task Force members, more than 100 additional UB colleagues participated in the various subcommittees upon whose work this report is built.

The recommendations included in this Report are directly responsive to the call for action as outlined in the curriculum and assessment sections in “Realizing UB 2020: Achieving Academic Excellence.” These recommendations range from the complex and potentially resource intensive new program in core education to more straightforward but mission critical needs in pedagogical innovation and assessment. Each recommendation attempts to elevate educational excellence at UB.

To provide an overall context for the subcommittees' recommendations described in this report a two phase approach is used. First, a section is presented that attempts to capture Task Force discussion, points of strong agreement and where concerns were raised relative to the primary recommendations. The second method to summarize the recommendations is in the form of a chart that was used by each Realizing UB 2020 Task Force.

Observations from the Task Force

As discussed above, the Task Force thought it important to share a more descriptive summary perspective of the recommendations to help in the further evaluation of these proposals. This overview is provided here.

There was strong support from the Task Force for the General Education proposal, a UB Core Education. The proposed program was recognized as significantly different than that which exists, is responsive to new integrative teaching pedagogy, is a continuum through the student's UB experience, will enhance much needed communication skills, reinforce the traits of the UB graduate as articulated in Realizing UB 2020 and could help the university achieve prominence in this area. It was further recognized that should UB embark on a new Core Education program, the University as a whole needs to be fully supportive and committed to the program and resource it appropriately. The transition is likely to be disruptive to many departments, especially in the College, where long standing support of faculty capacity and graduate student stipends have been facilitated through the delivery of general education classes. However, the impacts would not be limited to the College as the professional schools would be asked to also deliver important content centered around integrated learning. With that said and fully aware of the challenges and uncertainty, the Task Force was highly supportive of the general education proposal and believes the University should move forward with implementation of a new core education program.

Responding to the call in Realizing UB 2020 that every UB student have an international experience or sustained exposure to global cultures, recommendations were made to achieve this expectation. There were three primary recommendations that centered around a significant international experience for every undergraduate, a requirement that every freshman get a passport, and that the requirement apply to graduate and professional students with time. There was strong support that the student academic experience would be enriched if every UB undergraduate was required to have a more significant international experience and it was recognized that this proposal builds on a current UB strength and could bring prominence to the University. Questions did arise on whether this requirement should be applied to graduate and professional programs, even though not proposed until sometime in the future.
This aspect of the proposal should be explored in greater depth, as well as the benefits and challenges for such requirements in marketing UB programs.

*Realizing UB 2020* calls for the University to build “a central infrastructure that can support a wide range of faculty teaching and learning initiatives across the campus.” Foundational, signature and prominence recommendations were put forth to achieve this goal and each achieved support from the Task Force. The foundational recommendations addressed three broad themes that address faculty preparation for teaching, faculty mentoring, and the appropriate use and support of technology in educational delivery. The paucity of strong technical support for digital learning, whether virtual or in-class, was recognized as a limiting factor in moving pedagogical innovation forward at UB. The Task Force was in agreement that the capabilities of the current Teaching and Learning Center, for whatever reason, are not adequate to move the university forward in these three critical areas. Further, it was recognized by the Task Force that building this foundational capacity was not only critical for existing instructional delivery but also specifically in developing the skills necessary for faculty to effectively deliver the proposed Core Education program and Inter-Professional (IPE) education programs that are addressed in this Task Force report.

UB must articulate the learning capabilities for each degree program and institute formal mechanisms that assess whether the program is meeting its learning goals. To achieve this *Realizing UB 2020* expectation and infuse assessment into the campus culture more generally, two recommendations were made by the subcommittee on academic assessment. These were to build a central capacity for assisting academic and academic support units with more rigorous and regular assessment and to support research clusters for student assessment and evaluation. The Task Force was highly supportive of the Foundational recommendation to build greater central capacity for supporting academic and academic support unit assessment. Further, the Task Force appropriately recognized the essential linkages between the assessment recommendations and those in pedagogical innovation, Core Education, and Inter-Professional Education. Finally, the recommendations were supported through the recognition that achievement of the Middle States standards for student learning outcomes will need a more robust and systematic university approach.

Recommendations were made to complete work on Inter-Professional Education program (IPE) for all health care-related professional degree programs and the schools of Social Work and Management and to extend this later to all professional programs. Specific recommendations were made to create dedicated times within the academic calendar for IPE experiences, better training and resource development, financial support for experiential learning approaches (e.g. use of the Behling Simulation Center), and to promote research opportunities to conduct and assess the effectiveness of IPE. Again, it was noted that these should first be focused on IPE within health and then move beyond health to the campus more holistically. Finally, as indicated before, there are linkages between the IPE initiative and pedagogical innovation, assessment, experiential learning and these recommendations were supported by the Task Force.

**Summary Table of Recommendations**

A summary of all Curriculum and Assessment Task Force recommendations is provided in Table 1. For each recommendation, a rating descriptor is used in various categories to characterize the recommendation. These include: alignment with *Realizing UB 2020* goals, the implementation date, the length of time for implementation, estimated cost, the degree of complexity in achieving the outcomes of the recommendation and impact to UB’s academic excellence.
### Table 1. Curriculum and Assessment Task Force Summary of Recommendations

<table>
<thead>
<tr>
<th>Task Force Recommendations</th>
<th>Proposed Start Date</th>
<th>Realized with the Following Realizing UB2020 Goals</th>
<th>Cost</th>
<th>Time</th>
<th>Complexity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Implement a Prominence Level General Education Program at UB</td>
<td>Fall 2016</td>
<td>2,3</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Prominence</td>
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<tr>
<td>a. Uncontinue current program, initiate new one</td>
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<tr>
<td>b. Build Office of Core Education to coordinate first year seminars, foundational courses and integrated learning courses</td>
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<tr>
<td>c. Implement campus-wide e-Portfolio system</td>
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<tr>
<td>2. Achieving a Significant International Experience (SIE) for all students</td>
<td>Fall 2015</td>
<td>2,3</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Prominence</td>
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<tr>
<td>a. Develop components to fulfill SIE requirements</td>
<td></td>
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<tr>
<td>b. Passport for every undergraduate student as freshman</td>
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<tr>
<td>c. M. Program for transfer students and graduate/professional students</td>
<td>Fall 2017</td>
<td>2,3</td>
<td>Med</td>
<td>Med</td>
<td>Med</td>
<td>Prominence</td>
</tr>
<tr>
<td>3. Moving UB Educational Innovation Forward</td>
<td>Fall 2014</td>
<td>2,3</td>
<td>Med</td>
<td>Low</td>
<td>Low</td>
<td>Foundational</td>
</tr>
<tr>
<td>a. Reimagine the TLC as a HUB of Educational Innovation and Support and Resource it</td>
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<tr>
<td>b. Institute small grants program and Faculty Learning Communities to spur pedagogical innovation</td>
<td>Spring 2015</td>
<td>1, 2, 3</td>
<td>Med</td>
<td>Med</td>
<td>Med</td>
<td>Signature</td>
</tr>
<tr>
<td>c. Institute mentoring program for IPE</td>
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<tr>
<td>d. Provide funding for small grants in the range of $3,000 to $10,000</td>
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<tr>
<td>e. Develop Faculty Learning Communities to help spur interdisciplin ary pedagogical thinking</td>
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<tr>
<td>f. Make sure all new faculty have some mentoring experience</td>
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<tr>
<td>4. Support a culture of academic assessment at UB</td>
<td>Spring 2014</td>
<td>2, 3</td>
<td>Med</td>
<td>Low</td>
<td>Med</td>
<td>Foundational</td>
</tr>
<tr>
<td>a. Create an office of academic assessment to support academic and academic support unit assessment of university-wide learning initiatives</td>
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<tr>
<td>b. Create Research Cluster for Student Assessment and Evaluation</td>
<td>Spring 2014</td>
<td>1, 2, 3</td>
<td>Med</td>
<td>High</td>
<td>Low</td>
<td>Prominence</td>
</tr>
<tr>
<td>5. Implement Interprofessional Education at UB</td>
<td>Fall 2015</td>
<td>2,3</td>
<td>Med</td>
<td>High</td>
<td>High</td>
<td>Prominence</td>
</tr>
<tr>
<td>a. Identify time periods in academic calendar to reserve for IPE</td>
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<tr>
<td>b. Establish training/educational/engagement initiatives</td>
<td>Fall 2014</td>
<td>2,3</td>
<td>Med</td>
<td>Low</td>
<td>Low</td>
<td>Foundational</td>
</tr>
<tr>
<td>c. Provide active fiscal and administrative support for IPE (health and non-health)</td>
<td>Fall 2015</td>
<td>2,3</td>
<td>High</td>
<td>Med</td>
<td>Low</td>
<td>Signature</td>
</tr>
<tr>
<td>d. Research and seeking extramural support (HP and non-HP)</td>
<td>Fall 2015</td>
<td>1</td>
<td>Low</td>
<td>Med</td>
<td>Low</td>
<td>Prominence</td>
</tr>
<tr>
<td>Integrate Research/Scholarship into IPE</td>
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<tr>
<td>Seek Extramural Support</td>
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<tr>
<td>Leverage Realizing UB2020 Themes</td>
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</tbody>
</table>
While difficult at this stage to quantify with a high degree of confidence, the following guidelines were used to assign a high, medium or low designation to cost, time, complexity and impact for recommendations listed in Table 1. For cost, “small investments” of under $100K to implement (capital and operating) were designated low, moderate investments of under $500K were evaluated as med, and recommendations requiring investments of greater than $500k were evaluated as high. For time, a project that could be implemented within a semester was designated low, projects requiring more than a semester but less than a year were medium, and projects that would require greater than a year were designated as high. Low complexity projects were thought to require only the coordination of one or two unit/offices with no significant policy issues. Medium complexity projects would require more than two units co-operation and might require changes to campus policies while highly complex projects would need University-wide implementation (i.e. multiple units/across vice presidential areas) and might require changes in SUNY/NYS policies.

To assess the impact the designations of foundational, signature, and prominence were used for each recommendation. Foundational projects were seen as shoring up key infrastructures, services and academic programs that are essential to achieving our goals and often mission critical. Signature projects were seen as investing in areas that will improve UB but may not achieve national and international prominence. National and international prominence projects were those whose investments could move UB to a leadership position.

Summary

While each subcommittee report is a discrete concept, it is clear that there are overarching curricular and assessment components that truly link all these recommendations. Some of these linkages are very dependent, others are more complementary. A holistic perspective may the most useful lens by which to evaluate the proposals, consider their adoption, and sequence the implementation. This process has provided a valuable examination of the organic connection of teaching, learning, assessment, and curriculum, and offered an important lesson that any such innovations, should be considered in the larger context.
Appendix A:
Report from the General Education Committee
<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andy Stott</td>
<td>Chair, Dean and Professor, Undergraduate Education</td>
</tr>
<tr>
<td>Arjang Assad</td>
<td>Dean and Professor, School of Management</td>
</tr>
<tr>
<td>Barbara Bono</td>
<td>Associate Professor, English</td>
</tr>
<tr>
<td>Hadar Borden</td>
<td>Administrative Director, Undergraduate Academies</td>
</tr>
<tr>
<td>Maria Chavan</td>
<td>Graduate Assistant, Office of the SVPAA</td>
</tr>
<tr>
<td>Millie Chen</td>
<td>Associate Dean and Professor, College of Arts &amp; Sciences</td>
</tr>
<tr>
<td>Neil Coffee</td>
<td>Associate Professor, Classics</td>
</tr>
<tr>
<td>Elaine Cusker</td>
<td>Associate Dean, Undergraduate Education</td>
</tr>
<tr>
<td>Suzanne Dickerson</td>
<td>Associate Professor, School of Nursing</td>
</tr>
<tr>
<td>Christian Flaugh</td>
<td>Associate Professor, Romance Languages &amp; Literature</td>
</tr>
<tr>
<td>Joseph Gardella</td>
<td>John and Frances Larkin Professor, Chemistry</td>
</tr>
<tr>
<td>Krista Hanypsiak</td>
<td>Administrative Director, University Honors College</td>
</tr>
<tr>
<td>Peter Horvath</td>
<td>Associate Professor, Nutrition &amp; Physiology</td>
</tr>
<tr>
<td>Tracey Johnson</td>
<td>Interim Director, Educational Opportunity Program</td>
</tr>
<tr>
<td>Paul Luce</td>
<td>Professor, Psychology</td>
</tr>
<tr>
<td>Alexander Reid</td>
<td>Associate Professor, Director of Composition, English</td>
</tr>
<tr>
<td>Gershon Sageev</td>
<td>Associate Professor, Mathematics</td>
</tr>
<tr>
<td>Claire Schen</td>
<td>Director of Undergraduate Studies, History</td>
</tr>
<tr>
<td>M. Beth Tauke</td>
<td>Dean and Associate Professor, Architecture</td>
</tr>
<tr>
<td>Jessica Wangelin</td>
<td>Staff Associate, Undergraduate Education</td>
</tr>
<tr>
<td>Margaret Wells</td>
<td>Director, Public Services &amp; Arts &amp; Sciences, University Libraries</td>
</tr>
<tr>
<td>John Wood</td>
<td>Senior Associate Vice Provost, International Education</td>
</tr>
<tr>
<td>Jennifer Zirnheld</td>
<td>Assistant Professor, Electrical Engineering</td>
</tr>
<tr>
<td>Ezra Zubrow</td>
<td>Professor; Chair of the Faculty Senate, Anthropology</td>
</tr>
</tbody>
</table>
Appendix A - Report from the General Education Committee

Provost’s Committee on
General Education
Preliminary Report to the
Curriculum and Assessment Task Force

Executive Summary

The Provost’s Committee on General Education, meeting in the Fall of 2013, finds that the present program of General Education at UB – while not without merit – lacks the coherence, dynamism and content that students both need and deserve at a world class institution. The committee recommends that the structure of the current program be discontinued and replaced with a design that provides shared experiences and purposeful pathways through the program that will help students to understand what they are learning and why. Such a program would model the benefits of integrative learning while emphasizing key foundational skills, including critical thinking and a strong communication core, and issues pertaining to internationalization and diversity. While the following is an initial document in what will prove to be a complex and lengthy process, it proposes a program of exactly this kind, anticipates challenges and reservations, and suggests a strategy for implementation.

Prelude

In May 2013, Provost Zukoski in collaboration with the Faculty Senate charged a committee to be formed to revise the General Education program at UB. The committee, chaired by the Dean of Undergraduate Education, was asked to build a program that specifically addressed three connected issues:

1. The curricular innovations that comprise part of the Provost’s Realizing UB 2020 initiative, specifically the call to strengthen key communication skills among the undergraduate population, and to infuse the curriculum with the institutional themes of Health, Humanity, Innovation, Justice, and Environment.
2. A desire to build upon the work of the 2009 General Education Task Force charged by then-Provost Tripathi.
3. A program that met the requirements of SUNY General Education as promulgated by the SUNY Board of Trustees in January 2010.

The committee, comprised of faculty and staff from across the institution, began its deliberations with an all-day retreat in May 2013, followed by a two-hour meeting every Wednesday throughout the Fall semester. A full roster of participants is provided in Appendix A.
General Education at UB

The current General Education program requires between 40 to 48 credits of study, distributed as follows:

- Writing Skills (6 cr.)
- Mathematical Skills (3-4 cr.)
- World Civilizations (6 cr.*)
- Natural Sciences (7-10 cr.)
- American Pluralism (3 cr.*)
- Social and Behavioral Sciences (3 cr.)
- Language Requirement (5 to 10 cr.**)
- Humanities (3 cr. but can be fulfilled by ENG201: Writing 2)
- Arts (3 cr.*)
- Depth Requirement (3-6 cr.)
- Library Skills - interactive workbook

*Transfer students with 24+ credits are exempt from these requirements.

**Majors in the following schools and programs are exempt from the Foreign Language requirement: Architecture; B.F.A. in Art, Dance, Music Theatre; Bioinformatics and Computational Biology; Biomedical Sciences; Biotechnology; Engineering (except Computer Science); Informatics; Management; Medical Technology; Medicinal Chemistry; Nuclear Medicine Technology; Nursing; Pharmacology and Toxicology; Pharmacy and Pharmaceutical Sciences; Public Health and Health Professions.

The current program has an approximately 20-year history.

Prior to 1992, General Education was arranged according to a Knowledge Area distribution model ‘to encourage and reward four kinds of academic activity: informed critical thought, the sharing of some common bodies of knowledge, the introduction of students to the activities of the faculty in a wide range of disciplines, and the personal use of the creative arts.’

1992 saw the formation of the Undergraduate College, designed with a mandate to oversee General Education and identify areas of study critical to student success, primarily for students within Arts and Sciences. The intent of the 1992 UGC General Education Program was to focus ‘on a broad array of skills, knowledge, and issues that the University’s faculty considers to be particularly important for all college graduates. The program is intended to help students prepare for success and fulfillment in a continually changing world.’ The program was a combination of core requirements – World Civilization, American Pluralism, Great Discoveries in Science and Scientific Inquiry – and courses distributed across certain other subjects. At this time, General Education was seen primarily as a complement to the major and as preparation ‘for entering society as well-informed citizens.’

Between 1992 and 2000, a number of revisions and expansions took place within Gen Ed to serve more undergraduate programs at UB, until in 2000, SUNY issued a system-wide mandate that called for a uniform set of Gen Ed requirements and learning outcomes for all SUNY students. Commonly known as the ‘SUNY GER’, this was a distribution model spread across 10 required knowledge areas: Basic Communication (required), Mathematics (required), American History, Other World Civilizations, Foreign Language, Social Sciences, Humanities, the Arts, Natural Sciences, and Western Civilization.
Students also were required to demonstrate two required ‘competencies’ in Critical Thinking and Information Management.

In response to this mandate, UB implemented a single Gen Ed program for all its students with some exemptions by major or transfer status. This program varied somewhat from the SUNY GER but was nevertheless approved by Albany as compliant – UB’s two course World Civilization sequence was permitted to stand for the ‘Western Civilizations’ and ‘Other World Civilizations’ categories of the SUNY GER, and our American Pluralism course (with some very specific, and somewhat overlooked, restrictions) was permitted to stand for ‘American History.’

In 2010, the SUNY Board of Trustees revised the number of required General Education credits downward, changing the GER to 30 credits and 7 out of 10 knowledge areas, of which Basic Communication and Math were required. This is the current SUNY GER (see Appendix B). The ways with which UB’s Gen Ed program fulfills the SUNY GER can be seen in Appendix C.

In 2012, the Board of Trustees promulgated the SUNY Seamless Transfer Mobility Initiative that not only affirmed the 2010 SUNY GER, but declared that campuses should aim to sequence all General Education requirements within the first two years of study. In addition, it was announced that any transfer student entering a four-year school with 30 credits in designated categories of SUNY GER will be considered to have completed their General Education requirements irrespective of any local requirements at the receiving school. The University has stated its concerns about the implications of Seamless Transfer for UB, and continues to engage SUNY in dialogue on this issue.

Gen Ed Reform: The 2009 Task Force

In March 2009, then-Provost Tripathi and UB Faculty Senate together formed a Task Force on General Education. This committee was charged with taking a holistic view of General Education that would focus on the philosophy, purpose, and mission of UB’s program, with a view to creating a signature program that would also comply with SUNY requirements. The Task Force was Co-chaired by Andy Daum (History), Diane Christian (English), and John Thomas (Management), and included representatives from CAS, Architecture, Engineering, Management, Medicine, Public Health, and the University Libraries.

In February 2010, after thorough consultations across campus, the Task Force produced a report entitled ‘The UB Core Curriculum: Learning For Life’. This report identified what it perceived as the weaknesses of the current program, namely that it lacked any central mission or purpose; that it was seen by students as a ‘laundry list’ of options with no key organizing rationale; that there was no central or even shared ownership of the program, either in CAS or the then-Office of the Vice Provost for Undergraduate Education; and that students were granted too many exemptions and waivers, thus diluting any core aims the program may have had.

To remedy these weaknesses, the Task Force recommended building a program oriented towards ‘making the undergraduate experience...more exciting, more distinctive, and more responsive toward students’ needs’. While the Task Force neither designed nor proposed a specific program, it did make a number of key recommendations about what any future program should aspire to achieve. These were to include:

- Promoting basic skills and competencies.
- Leveraging UB’s strengths as a comprehensive research university and engaging all schools, including professional and graduate schools, in General Education.
• Leveraging UB’s international profile, its international enrollments, international reach, and location on an international boundary, as a means of infusing Gen Ed with a sense of globalism and diversity.

• Integrating courses around institutionally-agreed themes.

• Devising new courses on all aspects of ethical reasoning.

• Providing centralized opportunities for service, volunteer and experiential learning.

• A Library Skills workbook revised as an ‘information literacy’ requirement.

• Reshaping the ‘depth’ requirement as a ‘breadth’ requirement that encourages study abroad and other kinds of internationalized experience.

• Integrating global competency modules into Gen Ed courses.

• Educating people for life and inculcating a desire for lifelong learning.

The 2013 Committee and Proposed New Program

In looking to design a new program, the present report has been greatly informed by the work of the 2009 Task Force, and many of its recommendations are echoed in what follows. We acknowledge a debt of sincere gratitude to the colleagues who worked on that committee.

There is one notable point of departure, however: given the somewhat poisoned associations of the phrase ‘core curriculum’, we propose finding a new name for the program. For the purposes of this report, we have called the program ‘Core Education,’ although we believe that this, too, is insufficiently exciting as a ‘brand’. At the appropriate time, we will look to our communication experts on campus for help with this kind of marketing, messaging and design.

Following preparatory discussions, the committee agreed upon the following draft statement as a basis for a new program:

The mission of UB’s Core Education curriculum is to foster learning for college and for life.

Building upon a solid basis in essential competencies, students will develop the skill to navigate the intersections and interrelatedness of ideas and fields of study. They will develop an integrative approach to producing knowledge through the exercise of critical judgment, collaboration, synthesis and analysis.

The program will draw upon the full resources of a comprehensive research university and embrace a global perspective that seeks to instil in its students an appreciation for human and cultural diversity. It will promote a commitment to civic engagement. It will be a program that excites the imagination, primes the appetite for lifelong learning, and carries within it the distinct identity of the University at Buffalo.

The committee additionally identified four key terms that it considered central to the mission of a new program. They are ‘integrative’, ‘global’, ‘comprehensive’, and ‘lifelong’, defined thus:

**Integrative** - Integrative learning is an understanding and a disposition that a student builds across the curriculum and co-curriculum, from making simple connections among ideas and experiences, to synthesizing and transferring learning to new, complex situations. An integrative curriculum should seek to foster the above by requiring students to transfer knowledge and skills
from one context to another; reflect upon their experiences within different disciplinary settings; and build the capacity to both communicate and apply that learning.

**Global** - Global learning is a critical analysis of, and an engagement with, complex, interdependent global systems and legacies (natural, physical, social, cultural, linguistic, economic, and political). Through global learning and cross-cultural experiences, students:

- Attend to diversity across the spectrum of differences.
- Further a sense of their own identity vis-à-vis the world.
- Seek to understand how their local communities are also global communities, and understand how their actions affect both.
- Address the world’s most pressing and enduring issues in a spirit of collaboration and equity.

**Comprehensive** – Core Education should capitalize on the full expertise of our university and its status as the most comprehensive public institution in New York state. Core Education at UB should benefit from the scholarly expertise, paradigms and methods of inquiry in all available disciplines, and draw on our strength as a research center and as a public institution.

**Lifelong** – Core Education should seek to instill in its students not only the skills and knowledge that will allow them to achieve success in their chosen field, but also inculcate the desire to become an informed citizen, capable of meeting the challenges of an evolving society, and to pursue a path of renewed learning throughout life.

**The program**

In order to achieve the desired outcomes, we propose a program that has a minimum of 40 credits, and which consists of four discrete but interrelated components extending across the four years of an undergraduate career:

1. First Year Seminar (3 credits)
2. Foundation Courses:
   i. Quantitative Reasoning (4 credits)
   ii. Communicative Literacy (8 credits)
   iii. Scientific Inquiry (4 credits)
3. Integrated Learning:
   i. Themed Cluster (min. 9 credits)
   ii. Themed Cluster: ‘The World and You’ (min. 9 credits)
4. Ongoing e-Portfolio (3 credits)

The implications for resource allocation of this model are discussed on pp.13-14.

**Program Components and Learning Outcomes**

**1. First Year Seminar (3 credits)**

A mandatory freshman seminar, taught by tenured faculty and capped at 24 students. These courses would be branded as ‘Big Ideas’ courses, tackling conceptual problems from a disciplinary perspective,
while also including certain common learning outcomes that seek to develop facility in critical thinking and ethical reasoning. First Year seminars are a ‘High Impact’ educational practice with proven benefits improving the engagement, retention, and educational success of enrolled students.

As they arise from the disciplines, many of these seminars may also be counted towards certain categories in the SUNY GER. In addition, we conceive the seminar serving as an introduction to both the e-Portfolio (explained below) and the curricular integration of the UB themes.

Having completed this course, students will be able to:

- Identify, analyze, and evaluate arguments as they occur in their own work or those of others.
- Understand and practice fundamental concepts of academic integrity.
- Appreciate and apply the principles of integrated and interdisciplinary learning.

2. Foundation Courses (16 credits total)

The Foundation Courses are conceived as a suite of classes intended to provide a strong basis in quantitative reasoning, communication skills, and scientific method. Both ‘Quantitative Reasoning’ and ‘Communicative Literacy’ will fulfill the SUNY requirement for Math and Basic Communication, whereas instruction in ‘Scientific Inquiry’ will fulfill the SUNY Natural Science requirement, and is considered one of the ‘characteristics of excellence’ required for General Education in Middle States accreditation.

i. Quantitative Reasoning (4 credits)

‘Quantitative Reasoning’ is conceived as a numeric literacy course that invokes Core Education’s commitment to thematized learning.

Having completed this course, students will have met common Math-related learning outcomes, plus be able to:

- Analyze data and apply empirical methods to guide decision-making.
- Distinguish between causal and correlational evidence, as well as recognize when the available evidence is too weak to decide a matter.
- Recognize common mistakes in empirical reasoning and quantitative problem solving.
- Choose appropriate data-driven models for a given problem, using information from observed data and knowledge of the system being studied.

Note: The committee was divided on the question of whether or not this course should be required of all students, or whether it should be required only of students in non-STEM disciplines.

ii. Communicative Literacy (8 credits)

‘Communicative Literacy’ is a two-course sequence of 4 credits per course. The courses are conceived as a means of building strong communication skills in students across a variety of...
settings, genres and media. This would include the traditional skills taught in Composition and Rhetoric classes, through to instruction in oral presentations, writing in the disciplines, a grounding in media and visual literacy, and instruction in information literacy.

Due to the amount of material to be covered, Communicative Literacy is conceived as a progressive sequence. The first course would provide grounding in academic writing, whereas the second would move students towards writing in the disciplines and writing in the professions. Both courses will feed into the e-Portfolio. To be successful, this would require participation from the entire university, as well as the Center for Excellence in Writing, and the University Libraries.

Having completed these courses, students will be able to:

- Write well.
- Communicate effectively in public.
- Evaluate critically the quality of information.
- Recognize and negotiate cultural and human differences when communicating around the globe.
- Work collaboratively on composing.
- Develop the information management skills to retrieve, analyze and curate data.
- Communicate via emerging media.
- Make oral presentations to a variety of audiences.
- Conceptualize, design, and present visual information effectively.
- Understand the critical and ethical uses of digital media.

iii. Scientific Inquiry (4 credits)

This course will illustrate the nature of scientific inquiry through three to five case studies expressly drawn from different scientific fields in order to help students develop a deeper appreciation for the unifying principles of scientific inquiry, as well as the differences in methodologies employed by different scientific fields. By providing a broader exposure to science than that available through a standard introduction to a single subject, the course encourages both critical and integrative thinking by juxtaposing and contrasting the methods of scientific inquiry as practiced in different areas of science, and by inviting the student to make connections among them. The aim would be to provide a balanced selection of case studies so that a case from the microcosm (molecular biology, for example), might be balanced with another from the macrocosm (say, environmental science); or examples from inanimate bodies may be contrasted with those from life sciences.

Having completed this course, students will be able to:

- Understand the principles of scientific methodology and the ways in which scientists in different scientific disciplines conduct research.
- Develop a deeper (and contextualized) understanding of evidence-based reasoning.
- Appreciate the commonality of the scientific method across different disciplines of science as well as the key differences.
- Understand the concept of testable ideas, conjectures and refutations.
• Develop the ability to evaluate critically the formulation of scientific hypotheses, experimental design, and the process of verification.
• Understand the collection and analysis of scientific data.
• Communicate scientific results effectively, to both specialist and non-specialist audiences.
• Understand and apply the concepts of integrity and ethics as they relate to scientific inquiry.

Note: The committee was divided on the question of whether or not this course should be required of all students, or whether it should be required only of students in non-STEM disciplines.

3. Integrative Learning: Theme Clusters (minimum 18 credits)

The idea of linked or thematized course clusters is not new to higher education. At UB, however, it would represent a radical departure in the provision of General Education and an opportunity to craft a program that is truly distinctive. Few doubt that our students will face a rapidly-changing, highly technologized and globalized world, and while we cannot possibly hope to anticipate exactly which skills they will need in the next five or ten years, we can create a learning environment that models exactly the kind of intellectual adaptability, flexibility and capacity for growth that will help them rise to the challenge. We are fortunate inasmuch as the institutional themes proposed by Realizing UB 2020 – Health, Humanity, Innovation, Justice, and Environment – not only provide us with the institutional context within which to embark upon such a project, they also furnish ideal lenses through which to approach integrative learning.

As we envisage it, students will select two thematically-linked clusters of three courses each. These courses can be taken from anywhere across the university, but in order to avoid the crude and uncritical ‘colour coding’ of the undergraduate catalogue, must be pre-approved by the Office of Core Education (of which, more below), and display certain shared learning outcomes on their syllabi. The clusters, which will allow for greater student choice, new and innovative course delivery, and enlarged exposure to the arts, humanities, languages and social sciences, will be managed via a website from which students will select their preferences. Both the University of Rochester and UC Berkeley offer useful templates for this kind of enterprise. We anticipate that Student Advising Services will be a key partner in administering theme clusters, able to proactively assist students in making informed choices that align with their interests and goals.

Each cluster will be based around a broad heading from the Realizing UB 2020 list so that by the time their coursework is completed, students will have done work in two of the five possible themes.

Each of the two clusters will have a different emphasis: the first cluster will take the themes themselves and use them as the principal focus for explorations within and between the disciplines; the second cluster, provisionally titled ‘the World and You’ will do the same, by applying the themes specifically to global issues and diversity.

The aim of this approach is to:

• Model integrative learning through the active and intentional linking of content via syllabi.
• Develop an understanding of the diversity of global cultures and societies, and of the student’s relation to them.
• Fulfill remaining components of the SUNY GER in history, arts, humanities, social sciences, and languages.

In support of the ‘Communicative Literacy’ sequence and to reinforce the wish to build strong communication skills among our undergraduates, the committee also discussed the possibility of deeming one or more courses in the thematic clusters as ‘writing intensive’. Alternatively (or, perhaps, in addition), we envisage working closely with a well-resourced Center for Excellence in Writing to develop a ‘portfolio week’ – time built into the syllabus of every cluster class that mentors the students in mindful reflection and integration of their classes through the medium of the e-Portfolio.

4. The e-Portfolio (3 credits)

Because integrative learning is all about making connections, an essential part of any integrative program requires that the student undertake assignments that encourage active and mindful reflection and self-assessment. While we can line up integrated courses and speak to their virtues, the real work of integration resides with the student him or herself and the way that he or she chooses to connect the elements of their education. To this end, the committee recommends the adoption of an e-Portfolio as a distinctive feature of Core Education that will serve to bring its disparate parts together, act as a venue for reflection and self-assessment, and create connections across disciplines.

E-Portfolios are electronic collections of material and evidence of learning that can be accessed electronically and edited online. E-Portfolios typically accommodate a wide variety of media, and are capable of being adapted and customized to fit required learning outcomes or course expectations, as well as the particular interests and personality of the student who owns them.

Ideally, the e-Portfolio will act as a place where students are able to integrate their entire experience inside and outside of the classroom from the First Year Seminar to graduation, thereby seeking to dismantle some of the artificial barriers that are perceived to exist between formal study and co-curricular, experiential, and pre-professional activities. The e-Portfolio will be ongoing from the freshman year to graduation. Students would be set assignments that would ask them to describe, reflect and analyze connections between the courses in their theme clusters, while also making connections between the courses in the Core Education program and their major. For example, a student might be asked to reflect upon the difference in methodology in the issue of water rights in Nevada from the perspective of economics, political science, and environmental engineering, or ask themselves how such insights serve to frame a discussion on the meaning of ‘rights’ in relation to natural resources. In addition, e-Portfolios are useful tools in the pre-professionalization of undergraduates. A recent AAC&U survey found that more than four out of five employers said that an electronic portfolio would be useful to them in ensuring that job candidates have key skills. Finally, e-Portfolios are a thorough and efficient assessment tool, of which a statistical sample could be used to assess the quality of the Core Education curriculum at an institutional level.

The purpose of this component is to:

• Promote active and engaged reflection on the totality of Core Education
• Encourage and model the integration and cross-pollination of ideas across discrete assignments.
• Serve as a central repository for the student to compile her/his work over four years of Core Education.
- Serve as a marker of progress and achievement throughout the undergraduate career.
- Serve as a capstone to the Core Education program.
- Serve as an institutional assessment tool.
- Serve as a platform for resumes, professional portfolios and other material that helps to build a three-dimensional profile of the student as she/he transitions to the workplace.

The e-Portfolios might be administered by the Centre for Excellence in Writing and the departments.

**Pedagogy**

We believe that the revision of General Education represents an exciting opportunity for UB to refocus its commitment to student learning and refresh the culture of teaching on campus. This seems like an ideal moment to work with the recent Curriculum and Assessment Task Force sub-committee on Pedagogical Innovation to look into guaranteeing that methods of course delivery are appropriate to the program’s stated outcomes. Core Education should seek to create meaningful shared experiences, foster maximal student engagement, and model the benefits of integrative learning through team teaching, activities that promote collaborative problem solving, and assignments that are conscious of the broader ambitions of the program. Moreover, it is vital that we remain alert to the speed with which social, cultural, and technological changes alter our context as teachers and learners, and retain the wit and flexibility to revise and update our pedagogical practices accordingly.

**Experiential Learning and the Significant International Experience**

While the committee was not explicitly charged with discussing experiential learning or the significant international experience, as prominent features of the curricular revisions proposed in Realizing UB 2020, both topics arose continually. While we felt that it was not the place of a General Education program to fulfill either requirement by itself, we thought that in general that the university should provide as many opportunities as possible to fulfill the requirement – both in the major and elsewhere. We would also like to see Core Education classes designed that could double as international or experiential learning opportunities, and echo the desire of the 2009 Task Force in seeing the value and benefit of a centralized office providing a portal through which students could connect with such opportunities. The committee also felt that the e-Portfolio would be a good forum within which to demonstrate the relationships between the major, Core Education, and these kind of experiences.

**Infrastructure, Oversight and Administration**

Even a cursory reading of the above will show that a new program requires a much more ‘managed’ and proactive administration of Core Education than the current infrastructure permits. To this end, we make the following recommendations:

- The creation of an Office of Core Education under the Dean of Undergraduate Education, overseen by faculty and run by professional staff capable of administering a complex program that includes the provision of themed clusters.
- The creation of faculty committees responsible for overseeing each component of the program, and for reviewing and approving syllabi.
- The creation of an assessment committee responsible for establishing an assessment plan, reviewing assessment data and recommending adjustments where appropriate.
- The provision of e-Portfolio software and support.
Waivers, Exceptions, Double Dipping and Accommodations with the Major

The committee was divided on the question of whether or not the entire Core Education program would be required of all majors, or whether some majors might be waived certain components due to heavy credit loads. Many committee members felt that for Core Education to have the requisite educational impact, and to be used as a vehicle through which a coherent and self-affirming culture of learning could be forged on campus, it was necessary for every student to take the program. Others felt that a more practical approach was pragmatically necessary, and that those students in ‘big’ majors should be exempt certain aspects.

Also of concern is the amount of AP credit we give to incoming students. While accepting AP may make UB a more attractive proposition to some students making their college decision, the evidence suggests that it rarely prepares students to the level it should. As such, we recommend reviewing the question of AP credit and engaging the offices of Advising and Admissions in dialogue on this issue.

On the question of ‘double-dipping’ and whether or not some classes that count towards the major might also be counted towards the requirements of the Core Education program, it was the majority opinion of the committee that – in the age of Seamless Transfer and Finish in Four – this should be permitted.

Resources

Throughout its deliberations, the committee remained cognizant of the fact that many or all of its proposals had repercussions for resource allocation. Some of these involved requests for new resources, whereas others were concerned with changes to current ways of doing business at UB. Although the committee discussed the following issues in some detail, we are aware of the fact that there will be many units for whom the proposed program presents concerns, and by no means mean to diminish them.

Composition: By itself, the creation of a ‘Communicative Literacy’ sequence is not sufficient to bolster the strength of communication skills on campus. Rather, it is vital that the institution look to address the failings noted in the Composition Program Review undertaken by David Bartholomae (Pittsburgh) and Gail Hawisher (Illinois, Urbana-Champaign) in October 2011. Both declared themselves ‘shocked’ at the lack of institutional support shown for undergraduate writing at UB. As such, we recommend hiring at least three specialists in Rhetoric and Composition, bringing the number of Composition faculty on campus to five – still small relative to our AAU peers. These new faculty would join existing faculty with responsibility for teaching, organizing and overseeing TAs required for the Communicative Literacy sequence, while also being able to serve terms as the Director of the Centre for Excellence in Writing and helping to develop programs in writing across the disciplines. Tenure track faculty would be preferable to clinical or professional staff in this area, as the chance to teach and supervise graduate students will attract candidates of higher quality, while their research will keep the field intellectually alive. We do not consider it a given that the ‘home’ department for these faculty would be English (although that would be fine), but can envisage them either embedded within various departments across campus, or even becoming a department in their own right.

TA stipends and PhD studentships: In discussing and designing the program, we have heard often – both in committee and beyond – of unease regarding the discontinuation of TA-heavy sections such as Composition, World Civilizations, and US History, which are the life's blood of
the PhD programs in several departments. The committee is extremely sensitive to these issues, as without the provision of some alternative employment or means of funding these students, we anticipate genuine damage being done to impacted programs disproportionately clustered in the Arts and Humanities. We strongly recommend, therefore, that the question of PhD funding in these areas be looked into as soon as possible, and that this conversation evolves in parallel to work on the new program so that fears of this nature might be allayed.

**Redistribution of FTE:** Calling for the wider participation of all schools in Core Education has the potential to redistribute FTE’s from those departments that have traditionally taught large sections of introductory courses, such as Exercise and Nutrition Sciences, which fulfills the current Gen Ed science requirement, or a number of the Music department’s 100-level courses, which do a disproportionate amount of service in fulfillment of the current Arts requirement. For these courses, a change in program might mean an unanticipated shift in the teaching loads and budgets of the affected departments. On the other hand, the desire for a truly ‘comprehensive’ program may fall flat unless those units outside of CAS – already teaching a full slate of courses without contributing to Gen Ed – are not induced to feel the benefits of participation. This may require central directives of some kind (such as ‘each school must offer x sections of Core Education per semester’), or incentivization, such as the provision of TA lines or other resources for course development.

**Space:** Integrative learning should be supported on campus by physical spaces with the flexibility to physically embody the concept by being quickly organized in different ways and for different purposes. We envisage that the libraries would be key partners in this activity, as a library is the most obviously ‘integrative’ learning environment of any on campus. Ideally, we would like to see the Heart of the Campus project come to fruition, as its plans include the redesign of library space to create flexible and attractive spaces for student study, collaboration, learning and socializing, with easy access to research, technology and expertise. In the absence of capital funds to complete HOTC, however, we recommend initiating a study into the feasibility of converting the third floor of the Lockwood or Silverman Libraries into flexible learning spaces.

**Next Steps**

Revising General Education at UB will affect everyone on campus, involving as it does the day-to-day work of multiple schools, faculty and courses. Implementing a new program will require enormous effort, and involve a complex transition that is bound to create some disruption, however elegant the design.

In order to work through challenges and resolve satisfactorily the problematics of implementation, it is necessary to build a committee structure moving forward that brings an increasing number of stakeholders into the conversation. For such a big change to be made, it is important that the core values of the program be shared, and that we make an effort to build consensus so that the new program becomes a genuinely collaborative effort rather than the imposition of a small team. Essential partners include not only students and faculty, but also members of the advising community, the Registrar’s office, the Office of Admissions, the University Libraries, and Student Affairs.

In order to achieve this, we recommend the following timetable towards implementation:

Spring Semester 2014:
• Formation of nine sub-committees, each responsible for the definitive refinement of the objectives, learning outcomes, and logistics of each element of the proposed program.
• Formation of sub-committees responsible for transfer students, assessment, and marketing respectively.
• Formation of a Core Education steering committee comprised of chairs of the above.
• Budgetary assurances in place on which to move forward.

Summer 2014

• Completion of detailed report for campus-wide review.

Academic Year 2014-15

• Campus-wide consultation and refinement of the plan.
• Build implementation team; create and manage timeline for implementation.

Academic Year 2015-16

• Build Office of Core Education.
• Comprehensive course proposal and approval process.

Fall 2016 – full implementation.
## Appendix A: Committee Roster

<table>
<thead>
<tr>
<th>First</th>
<th>Last</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arjang</td>
<td>Assad</td>
<td>Dean</td>
<td>School of Management</td>
</tr>
<tr>
<td>Barbara</td>
<td>Bono</td>
<td>Associate Professor</td>
<td>English</td>
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<tr>
<td>Hadar</td>
<td>Borden</td>
<td>Administrative Director</td>
<td>Undergraduate Academies</td>
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<tr>
<td>Maria</td>
<td>Chavan</td>
<td>Graduate Assistant</td>
<td>Undergraduate Education</td>
</tr>
<tr>
<td>Millie</td>
<td>Chen</td>
<td>Professor; Associate Dean CAS</td>
<td>Visual Studies</td>
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<tr>
<td>Neil</td>
<td>Coffee</td>
<td>Associate Professor</td>
<td>Classics</td>
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<td>Elaine</td>
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<tr>
<td>Suzanne</td>
<td>Dickerson</td>
<td>Associate Professor</td>
<td>School of Nursing</td>
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<tr>
<td>Christian</td>
<td>Flbaugh</td>
<td>Associate Professor; Director of Undergraduate Studies</td>
<td>Romance Languages and Literatures</td>
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<tr>
<td>Joseph</td>
<td>Gardella</td>
<td>John and Frances Larkin Professor of Chemistry</td>
<td>Department of Chemistry</td>
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<td>Krista</td>
<td>Hanypsiak</td>
<td>Administrative Director</td>
<td>University Honors College</td>
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<td>Peter</td>
<td>Horvath</td>
<td>Associate Professor</td>
<td>Department of Exercise and Nutrition Sciences; Dept. of Physiol. &amp; Biophysics</td>
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<tr>
<td>Tracy</td>
<td>Johnson</td>
<td>Interim Director</td>
<td>Educational Opportunity Program</td>
</tr>
<tr>
<td>Paul</td>
<td>Luce</td>
<td>Professor</td>
<td>Psychology; Communicative Disorders and Sciences</td>
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<td>Sageev</td>
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<td>Gail</td>
<td>Willsky</td>
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<tr>
<td>John</td>
<td>Wood</td>
<td>Senior Associate Vice Provost</td>
<td>International Education</td>
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<tr>
<td>Jennifer</td>
<td>Zirnheld</td>
<td>Assistant Professor; Director, Energy Systems Integration</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>Ezra</td>
<td>Zubrow</td>
<td>Professor; Chair of the Faculty Senate</td>
<td>Anthropology</td>
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</table>
Appendix B: SUNY GER

The SUNY General Education Requirement (SUNY-GER) enables students to acquire knowledge and skills that are useful and important for all educated persons, regardless of their jobs or professions. (SUNY Board of Trustees Resolution, January 2010)

If you enter SUNY in fall 2010 or later as a beginning or transfer student, to earn a SUNY bachelor’s degree, you must meet a 3-part requirement:

**PART 1. Earn 30 credits in courses in at least 7 of the following 10 SUNY-GER areas:**

<table>
<thead>
<tr>
<th>2 required areas*</th>
<th>Basic Communication</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any 5 of these 8 areas*</td>
<td>American History</td>
<td>Other World Civilizations</td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td>Social Sciences</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>The Arts</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td>Western Civilization</td>
</tr>
</tbody>
</table>

**PART 2. Meet the general education requirements of your bachelor’s degree campus and your specific major - if those requirements are not the same as PART 1.**

**PART 3. Demonstrate competency in the following two SUNY-GER areas in ways permitted by your bachelor’s degree campus:**

<table>
<thead>
<tr>
<th>2 required areas</th>
<th>Critical Thinking</th>
<th>Information Management</th>
</tr>
</thead>
</table>

*If you entered SUNY between fall 1998 and fall 2009, you may need to complete courses in each of the ten areas, but your advisor may tell you about other options. If you entered SUNY before 1998, the SUNY-GER may not apply.

Your academic advisor can help you plan a path to meeting your general education requirements. For the specific major(s) you intend to complete, find out about:

- **Specific SUNY-GER courses you should take.** Every SUNY-GER course counts toward meeting the SUNY-GER at every SUNY campus. However, there may be a difference between meeting the SUNY-GER and meeting local campus requirements and specific major requirements. In addition, you may be able to meet parts of the SUNY-GER, local and major requirements with AP, IB, CLEP, DANTES or ACTFL exams, or prior college credits.

- **Course grades required.** If you earn a grade of C or higher in a SUNY-GER course, the course is guaranteed to satisfy the SUNY-GER at every SUNY campus. However, a campus or major may require a higher grade in some SUNY-GER courses, or it may accept any passing grade.
If you plan to transfer within SUNY to earn a bachelor’s degree, you may want to complete as many SUNY-GER courses as you can before you transfer. Try to complete courses in at least 7 SUNY-GER knowledge and skills areas, including the 2 required areas before you transfer. If you earn 30 credits in 7 or more SUNY-GER areas, including the 2 required areas, before you transfer, you will have met that part of the SUNY-GER at every SUNY campus. If you complete SUNY-GER courses that fit your transfer campus and major, you will be making good progress toward your bachelor’s degree.

Search for general education requirements at each SUNY campus awarding bachelor’s degrees at [http://www.suny.edu/student/campuses_complete_list.cfm.](http://www.suny.edu/student/campuses_complete_list.cfm)

Appendix C: How UB Gen Ed fulfills SUNY GER

<table>
<thead>
<tr>
<th>SUNY GER</th>
<th>Credits</th>
<th>UB Gen Ed</th>
<th>Course/s</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Communication Oral &amp; Written</td>
<td>3</td>
<td>Writing Skills</td>
<td>ENG101-102 or ESL</td>
<td>3-6</td>
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<tr>
<td>Math</td>
<td>3-4</td>
<td>Math</td>
<td>One course from approved list</td>
<td>4</td>
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<tr>
<td>Western Civ</td>
<td>3</td>
<td>World Civ</td>
<td>UGC 111-112</td>
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<tr>
<td>Other World Civ</td>
<td>3</td>
<td>World Civ</td>
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<td>6</td>
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<tr>
<td>Natural Sciences</td>
<td>3-5</td>
<td>Natural Sciences</td>
<td>Two semester sequence with lab</td>
<td>7-10</td>
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<tr>
<td>American History</td>
<td>3</td>
<td>American Pluralist</td>
<td>UGC 211 or cognates</td>
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<tr>
<td>Social Sciences</td>
<td>3</td>
<td>Social Behavioral Sciences</td>
<td>One course from approved list</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3-4</td>
<td>Foreign Language</td>
<td>Demonstrate elementary second course proficiency (exemption for certain majors)</td>
<td>5-10</td>
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<tr>
<td>Humanities</td>
<td>3</td>
<td>Humanities</td>
<td>One course from approved list or completion of ENG201</td>
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</tr>
<tr>
<td>Arts</td>
<td>3</td>
<td>Arts</td>
<td>One course from approved list</td>
<td>3</td>
</tr>
<tr>
<td>Information Management</td>
<td>0</td>
<td>Library Skills</td>
<td>Library Skills workbook</td>
<td>0</td>
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<td>Critical Thinking</td>
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<td>Infused in the Major</td>
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<td>Depth Requirement</td>
<td>UGC302 or 303 or science at 200+ level, additional Math course or 3rd semester Foreign Language</td>
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Appendix B: Report of the Council on International Studies and Programs Committee
Council on International Studies and Programs Members

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Professor and Chair
Electrical Engineering

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Associate Professor
Comparative Literature
<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Wooksoo Kim</td>
<td>Associate Professor</td>
<td>Social Work</td>
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<tr>
<td>Donald McGuire</td>
<td>Adjunct Professor</td>
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<tr>
<td>Patrick McDevitt</td>
<td>Associate Professor</td>
<td>History</td>
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<tr>
<td>Peter A. Nickerson</td>
<td>Professor</td>
<td>Physiology</td>
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<tr>
<td>H. Lorraine Oak</td>
<td>Associate Dean</td>
<td>College of Arts and Sciences</td>
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<tr>
<td>Mary Odrzywolski</td>
<td>Director</td>
<td>Study Abroad Programs</td>
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<tr>
<td>Mulchand S. Patel</td>
<td>SUNY Distinguished Professor</td>
<td>Biochemistry</td>
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<tr>
<td>Jessie P.H. Poon</td>
<td>Professor</td>
<td>Geography</td>
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<tr>
<td>Pavani Ram</td>
<td>Associate Professor</td>
<td>Social and Preventative Medicine</td>
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<tr>
<td>Joseph Schneider</td>
<td>Director of Post-Professional and International Education</td>
<td>Law</td>
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<td>Steven L. Shaw (ex officio)</td>
<td>Assistant Vice Provost and Director International Admissions</td>
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<tr>
<td>Othman Shibly</td>
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<td>Natalie Simpson</td>
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<td>John H. Stone</td>
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<td>SUNY Distinguished Service Professor</td>
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<td>Margaret R. Wells</td>
<td>Director, Public Services, Arts and Sciences</td>
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<td>Lillian S. Williams</td>
<td>Associate Professor</td>
<td>African American Studies</td>
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<td>John J. Wood, Secretary</td>
<td>Senior Associate Vice Provost</td>
<td>International Education</td>
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<tr>
<td>Yow Wu (Bill) Wu</td>
<td>Associate Professor</td>
<td>Nursing</td>
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<td>Jiyuan Yu</td>
<td>Professor</td>
<td>Philosophy</td>
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Appendix B: Report of the Council on International Studies and Programs Committee

REPORT SUBMITTED BY THE COUNCIL ON INTERNATIONAL STUDIES AND PROGRAMS ON MANDATING A “SIGNIFICANT INTERNATIONAL EXPERIENCE” FOR UB STUDENTS

November 25, 2013

Background

The Realizing UB 2020 Curriculum and Assessment Task Force invited the Council on International Studies and Programs (CISP) to provide recommendations specific to one of the Task Force deliverables due in December 2013: "Create the structure and implementation plan for the global experience requirement." This item refers to a statement in Realizing UB 2020 that a “requirement for all degree programs will be some form of international experience or sustained exposure to global cultures. This might be a study abroad experience, an extended study of a foreign culture, a language immersion experience or a structured tour of a foreign country.”

CISP was deemed the appropriate group to assist the Task Force with this task, because it is the only university-wide committee dealing with UB’s international programs and policies. Furthermore, CISP has been principally involved in the implementation of the university's 2007 internationalization plan, The Global Imperative, which calls for UB to internationalize the student experience. In September 2013 CISP organized a subcommittee to undertake the Task Force assignment, co-chaired by Stephen Dunnett, Vice Provost for International Education and a member of the task force, and David Engel, Chair of CISP. The subcommittee met weekly and conferred with the entire Council as it proceeded.

Statement of Purpose

UB’s international activities, programs and commitments represent a key component of its identity. A globally-minded, multicultural institution situated on a major international border, its faculty engaged in research and teaching with colleagues around the world, its student recruitment reaching across the continents, UB has, through its strategic internationalization plan, committed itself to the challenge of globalization. Yet the educational experience of the average domestic student at UB currently does not reflect these core commitments. If internationalization is to be fully realized, it should become an intrinsic part of the worldview instilled in each of our students. One way to ensure that UB really does prepare students to be global citizens, in keeping with its institutional identity and values, is to implement the Realizing UB 2020 requirement that all of our students have some significant international experience (SIE) before they graduate with a UB degree.
Establishing the SIE requirement would position UB as a national leader. Only a few peer institutions in the AAU, including Ohio State, Michigan State and Georgia Tech, have developed global experience requirements. As stated in Realizing UB 2020, UB aspires to go a step further and mandate its requirement for all students, not just undergraduates. All students—in all programs and at all levels—will benefit from the new international dimensions of their programs at UB.

Definitions

- **Significant**
  The experience should be important enough to each student’s education to justify creating a new university-wide program and a new set of requirements. We understand “significant” to mean an experience that is potentially transformative, substantially broadens the student’s understanding of the world and his or her place in it, makes the student better able to understand and respect people from other countries and cultures, and enhances the student’s ability to participate in the global system on more equal terms with students from other countries.

- **International**
  The experience should involve meaningful engagement with other cultures and social systems. The ideal form of engagement involves travel to and study in another country, but that goal may not be achievable for all or most students. Even for those who do not travel outside the United States, however, the cross-national dimension of the experience is crucial. It should be remembered that UB’s proximity to Canada offers numerous opportunities to explore a non-U.S. country that is distinctive in many ways. Western New York is also the home of a number of immigrant and refugee communities. Experiential learning programs to facilitate interaction with these communities could provide students with meaningful cross-cultural experiences.

- **Experience**
  The expression Significant International Experience (“SIE”) calls attention to the importance of experience and not classroom learning alone, especially in acquiring cross-cultural skills and understanding. The SIE requirement will undoubtedly connect in significant ways to course work, including language courses, but the word “experience” also encourages us to think beyond the confines of a classroom into the other social and professional realms of students. The SIE requirement is rooted in a widely-accepted educational perspective expressed many years ago by Kenneth Arrow among others, “Learning is the product of experience.”

**Relevant Student Populations**

- **Initial Focus on Incoming Freshmen**
  Realizing UB 2020 requires every UB student to have some form of significant international experience. Students earning UB degrees, whether in Buffalo or in offshore programs such as those in Singapore, will be subject to the SIE requirement. To implement such a policy not only for undergraduates but also for graduate and professional students is, however, exceedingly complex and will require consultation with faculty teaching in a wide variety of distinctive
programs, each with its own requirements and constraints. Transfer students will also pose special challenges in terms of the implementation of the requirement. After careful consideration, CISP recommends that the SIE requirement should initially apply only to incoming freshmen, who would need to fulfill the requirement not immediately but by the time they graduate. After the policy pertaining to incoming freshmen is in place, it will be more feasible to consider, in close consultation with the relevant deans, how to extend it to transfer as well as graduate and professional students.

- **Applicability to Graduate and Transfer Students**
  Based on lessons learned in the implementation of the freshman SIE requirement, the requirement will be subsequently implemented for transfer as well as graduate and professional students, with the deans determining which SIEs, whether centralized or decentralized, are most suitable for their students. It is anticipated that waivers of the requirement may be allowed for students in certain graduate and professional programs of short duration; however, it will be up to the respective deans to negotiate such waivers with the Provost.

- **Applicability to International Students**
  CISP recommends that the SIE requirement be applied to international as well as domestic students, both of whom can fulfill the requirement in the same way. We recognize that, in one sense, international students have a significant international experience merely by leaving their home countries and enrolling at UB. We have concluded, however, that these students should be asked not just to attend classes at our university but also to participate in some experience that involves integration and exchange with domestic students. For example, international students might work with U.S. students learning their native language, or take part in one of the formal integration activities regularly organized by International Student and Scholar Services. This requirement will ensure that they acquire a meaningful understanding of American culture during their stay here, which is not always the case, and it will also enhance the global consciousness of the domestic students with whom they interact.

**A Passport for Every Student**

A passport is more than just a necessary travel document. It is a symbol that the bearer truly is a global citizen, with a “pass” into every “port” of the world. Obtaining a passport can transform one’s sense of self. We do not think our students can truly visualize themselves as individuals prepared to embark on significant international experiences unless and until they hold their own passport in their hands. Accordingly, we propose that all incoming students should be required to obtain a passport, if they do not already have one. To make this possible, UB will provide all students who are subject to this mandate a stipend to defray the cost of the passport application fee and will offer them assistance with the application process. We are aware that creation of this requirement may involve legal or technical complexities that remain to be fully explored. In the event that this requirement turns out to be impracticable, we suggest that UB should instead offer every student a subsidy, along with assistance and encouragement, but should not make the acquisition of a passport mandatory.
Procedure for Specifying SIEs

- The SIE requirement, if adopted, would crosscut every school and department in the university. We recognize that this broad academic terrain comprises many different disciplines, each with its own expectations and requirements. Some international experiences that might be significant for students in one field of study would be insignificant or even irrelevant in another. Accordingly, we recommend that each school should have the flexibility to create its own menu of SIEs. At the same time, UB should create a limited group of centrally administered SIEs that could be selected by any student anywhere in the university to satisfy the requirement. In this report, we propose eight different centrally administered pathways to satisfying the UB 2020 SIE requirement. These eight centrally administered SIEs will also serve as prototypes for each school that elects to develop additional alternative SIEs. Further, some SIEs, such as Study Abroad, could simultaneously satisfy other requirements, such as the anticipated General Education and experiential learning requirements. Although we might wish that every UB student could travel and study abroad, cost barriers and other personal considerations make this goal difficult to achieve. Accordingly, we must develop some SIEs that do not involve foreign travel. Furthermore, CISP strongly urges that we take advantage of UB’s unique identity as the only AAU member institution in the United States that is located on an international border. Canada can offer our students some truly significant international experiences.

- Centrally developed and administered SIEs
  - Global Scholars Program. Certification by the Global Scholars Program (GSP), which enables undergraduates to earn a transcript notation in recognition of international studies and experiences, would automatically satisfy the SIE requirement, unless a school chooses to add a requirement beyond those already contained in the GSP guidelines.
  - Study Abroad. Successful participation in a UB-approved study abroad program bearing at least 3 credits would satisfy the SIE requirement. UB should provide the resources and strengthen the Study Abroad Programs office to enable a significantly larger number of students to study abroad. The new winter session should be used to allow more students to undertake study abroad programs at a convenient time and at reduced cost. UB should also establish Presidential Global Experience Scholarships to make Study Abroad affordable to a substantially larger number of students who are now deterred by cost barriers.
  - Global Perspectives Academy. This is another existing UB program with its own well-defined requirements and activities. Successful participation would satisfy the SIE requirement.
  - Canadian Programming. Taking advantage of UB’s proximity to Canada and its partnerships with Canadian universities, UB should develop and subsidize intensive, interdisciplinary, faculty-led, non-credit bearing
study programs in various cities in Quebec and Ontario. Some of these study trips to Canada might be connected to regular courses, Discovery Seminars, or Winter- or Summer-Session courses, which could provide context and preparation for the first-hand experience in Canada. Many variations of Canadian programming are possible, all of which should involve carefully structured and substantive faculty-supervised trips to Canada lasting 5 days or longer.

- **Internships with International Organizations.** UB should develop and publicize a list of placements specifically to satisfy the SIE requirement.

- **Community-based Practicum, Internship, or Volunteer Work.** A number of immigrant and refugee communities are found in Western New York, and UB already provides some credit bearing and non-credit bearing opportunities for students to work with them, such as those offered through the Anthropology Department. Significant participation in such programs would satisfy the SIE requirement.

- **Coursework Requiring Significant International Experiential Learning.** Although the SIE requirement of a significant experience would not typically be satisfied by coursework alone, “Realizing UB 2020” calls for the development of expanded experiential learning opportunities, including those that are international. Moreover, the new General Education program is likely to entail experiential learning requirements. If such experience-based coursework has a significant international dimension, it could satisfy the SIE requirement. CISP recommends that particular attention be paid to language instruction as an important component of international experiential learning.

- **Global Integration Experiences.** International students may satisfy the SIE requirement by participation in any of the options listed above, but in addition each school should develop SIEs designed to enhance the integration of international students and domestic students at UB. Global integration programs, in order to satisfy the SIE requirement, must involve sustained cross-cultural exchange and cooperation and must benefit both international and domestic students. Participation in such programs could also satisfy, at least partially, the SIE requirement for domestic students. The current Global Scholars Program menu could be adopted to identify SIEs of this kind.

- **Decentralized variations**

  - Although any UB student could satisfy the SIE requirement by participating in the eight centrally administered options listed above, individual schools should have the flexibility to develop and administer their own options. Students could select either a centralized or decentralized option. UB’s deans and faculties will know best what makes sense for their own students. For example, the academic units could adapt existing courses, or develop new ones, to take advantage of
collaborative online international learning (COIL) modalities with colleagues at partner institutions in other countries. Such team-taught courses allow UB students to learn collaboratively with students at universities overseas. Virtual internationalization through web-mediated courses can benefit from the support of the SUNY COIL Center, a leader in the field, and from the Teaching and Learning Center at UB. The decentralized options should, however, be analogous to the centrally administered options. That is, they should be significant, international, and experiential.

- Multiple Experiences to Meet the SIE Requirement

  Given the variability in the duration and depth of various international experiences, it is anticipated that some students will combine several international experiences to meet the SIE requirement. For example, they may combine a short study trip to Canada with an experiential learning program involving international populations or communities in Buffalo.

**Impact**

- Implementation of the SIE requirement will put international experience at the center of a UB education, and afford all UB students the opportunity to gain appropriate preparation for lives and careers in the globalized world of the 21st century. UB’s curriculum and programs will take on a new and decisive international orientation that they have lacked previously, and take better advantage of UB’s large and diverse international community to foster increased integration of international students and enhance the cross-cultural awareness of domestic students. Students will view international experience and the acquisition of global competencies, not as a marginal activity as it has been hitherto, but as an essential and expected part of their UB education. The global perspective students acquire at UB will inspire increased interest in scholarly and service opportunities such as Fulbright and Peace Corps. UB will be rightfully recognized as a national leader in this respect. UB’s distinctive SIE requirement will also bolster the university’s public profile and will benefit recruitment efforts, as prospective students recognize the value of such experience in preparing them for future careers in a globalized economy. They will choose UB for enhanced learning opportunities such as the SIE.

**Monitoring and Assessment**

- Evaluation of new SIEs

  In addition to the eight centrally-administered SIEs proposed in this report, schools and departments will be encouraged to design additional SIE options suitable for their own students. To propose a decentralized SIE option, the department chair (where relevant) and dean should submit the proposal to the Office of International Education, which will assess the proposal together with the Office of Undergraduate Education and then forward it to the Provost with a
recommendation to approve or deny it. If approved, the SIE will be added to the Registrar’s list of SIEs available to students.

- Monitoring student compliance with the SIE requirement

Each department chair or dean will certify to the Registrar when an individual student has satisfied the SIE requirement. We recommend that each decanal unit appoint an administrator to oversee SIEs in their schools and liaise with the central administration on all matters concerning SIEs. It appears likely that coordination between the schools and the central administration concerning SIEs will become part of a broader package of curricular innovations, such as new Gen Ed courses and enhanced experiential learning, resulting from Realizing UB 2020.

- Individual educational outcomes

The SIE requirement should produce globally minded students who better understand the world and can appreciate, respect, and successfully interact with people from different countries and cultures. Such students will participate more successfully in the global system and will be better prepared for fulfilling careers in a rapidly changing social and economic environment. Further, the SIE will help students achieve some of the educational outcomes listed in Realizing UB 2020, including the following:

- Cultivate a desire and skill to navigate the world and to develop global cultural awareness
- Experience and appreciate the diversity of cultures and life experiences of people across the world
- Understand the transformations in cultures, societies, and human and natural systems from the past and present in order to develop a holistic understanding of humanity

- Oversight and Implementation

The SIE program will require careful assessment, particularly in the early years, to ensure it is achieving its objectives. Expansion of the SIE requirement to graduate and professional students should be considered only after it is evident that the program is operating successfully at the undergraduate level. If requested, the Council on International Studies and Programs (CISP) is willing to play a role in program oversight and implementation.

**Costs**

- Passport Requirement

Incoming students subject to the SIE requirement who do not already have a passport when they enroll will be required to obtain one in their first year. UB will subsidize the cost of a passport (currently $140) and help facilitate the
application process. In addition to the value of a passport in preparing a student to become a global citizen, it should be noted that a passport is an absolute prerequisite to participation in any of the eight proposed SIEs that involve travel outside the United States.

- **Study abroad**
  Study abroad is the “gold standard” for an SIE. However, it remains a less feasible option for many students, despite the fact they are generally aware of the benefits of studying abroad. One of the most significant barriers is cost. In order to make study abroad affordable for a significantly larger number of students, UB should invest substantial resources in Presidential Global Experience Scholarships to subsidize students who wish to participate. Initially, to handle the increased number of participants, the Office of Study Abroad Programs will require at least two additional advisors/recruiters, at least one additional graduate assistant and funds to support study abroad outreach and recruitment activities—through marketing, class visits, information sessions, and study abroad fairs. To accommodate this expanded Study Abroad office, a larger, more central and visible space should be provided to attract larger numbers of students and provide enhanced services for them. The Capen Library site proposed in the Heart of the Campus plan will be a major improvement over the cramped and isolated space currently occupied by Study Abroad in Talbert.

  In addition, there should be incentives and subsidies for faculty to develop and direct study abroad programs, and courses taught as part of a study abroad program should be counted “on load.” Funds are needed to incentivize the development of new faculty-led programs and to help defray faculty travel costs in accompanying students overseas.

  In anticipation of a significantly increased number of students studying abroad, the Study Abroad office will require additional staff and resources to recruit, advise and support these students, and to work with the academic units in implementing study abroad programs suited to their curricula.

- **Canadian programming**
  The university should subsidize the proposed co-curricular travel-study programs in Canadian cities in which interdisciplinary UB faculty teams would introduce students to the rich and diverse culture of our nearest international neighbor in a low-cost fashion. Funds would be needed to defray travel costs of faculty leading these travel programs and to incentivize student participation, though students would cover some portion of their own costs.

- **IT Infrastructure**
  The Student Information System (HUB) and UB Linked, the new co-curricular transcript system, will need to be modified to enable tracking of the SIE requirement, which may be fulfilled through both curricular and co-curricular SIEs.
- **Staff**
  It should be recognized that the SIE requirement will place demands on staff across the entire campus. Each academic unit will have primary responsibility for implementation, monitoring, and assessment. Many academic units are currently understaffed and will find it difficult to meet this challenge. Enhancement of current staff will be needed to support the SIE requirement.

- **Advisement**
  Enhanced academic advisement will be required to implement the SIE program, and advisers will need additional training to understand and support the new requirement.

- **Publicity and information dissemination**
  There will be costs involved in publicizing the SIE program and maintaining a website presence to disseminate information and provide a forum to respond to questions and facilitate discussion among students, faculty, advisers, and administrators.

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**Complexity**

- In order to reduce complexity, the proposed phased-in approach will subject only incoming freshmen to the SIE requirement at the initial stage. Since freshmen will have several years to comply with the requirement, there will be sufficient time for the university to consolidate the infrastructure needed to monitor and assess compliance. Complexity will increase as the second phase, pertaining to transfers as well as graduate and professional students, is implemented, since a much larger number of programs with specialized curricular requirements will be involved at that stage.

- Given the other complex curricular reforms in process at the same time, a pilot phase is recommended to allow time not only to make necessary adjustments to the SIE requirement for freshmen, but also to give the academic units the opportunity to develop SIEs appropriate to their graduate and professional students.

- In addition to complexities of timing, the implementation of the SIE requirement will necessitate a culture change across the institution, since the central administration, the deans and all of the academic units, and the advisement staff will need to accommodate the SIE requirement as part of the standard requirements for a UB degree. A pilot phase will allow the transition time needed for units to develop their own SIE implementation plan as well as their own customized SIEs. New SIEs, such as the study tours to Canada, will require staff resources, as will the passport requirement.

- In light of the complexities involved, CISP recommends the task force adopt the following implementation timeline.
Timeline

- Fall 2014: Pilot phase for freshman SIE requirement to be fulfilled by the Class of 2018 before graduation; existing SIEs made available; development, rollout, and implementation of new SIEs.

- Fall 2015: Full implementation of freshman SIE requirement to be fulfilled by all subsequent entering classes before graduation.

- Fall 2017: Pilot phase for transfer, and graduate and professional SIE requirement; development, rollout, and implementation of new SIEs for these students.

- Fall 2018: Full implementation of transfer, and graduate and professional SIE requirement.
Appendix C: Report from the Educational Innovation Subcommittee
Educational Innovation Subcommittee

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Associate Dean and Professor
Graduate School of Education

Josephine Anstey
Chair and Associate Professor
Media Studies

Arjang Assad
Dean and Professor
School of Management

Robert Burkard
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School of Social Work

Paul Wietig
Interim Director
Teaching and Learning Center
Educational Innovation Subcommittee

Discussion Draft

Definitions

Pedagogy

Pedagogy is the art of teaching. Pedagogy is often used to talk about instructional design as well as the various ways course content can be delivered. In addition, pedagogy is often used to talk about more conceptual concerns including (but not limited to) a commitment to learning-centered or reflective and recursive teaching practices.

Andragogy is “the art and science of helping adults learn” (Knowles, 1970), which was originally developed to be used alongside pedagogy to extend teaching to address the abstract cognitive abilities of adults (see also Samaroo, Cooper & Green, 2013).

Assessment

Assessment is the collection of data specific to teaching and learning outcomes. For the purposes of this report alone, we have treated assessment as linked to student outcomes. Assessment data are observable and measurable parameters as a result of a teaching intervention and culminate in a learning outcome.

Digital and Instructional Media

At the most basic level, technologies are tools or instruments and can also include human behaviors. Digital and instructional media tools are a subset of tools that educators can bring into the classroom to improve, transform, or provide increased access to teaching and learning.2

Educational Improvement

The committee has treated “improvement” as the enhancement of existing pedagogical practices. Improvement tends to indicate predictable advancement.

Educational Innovation

2 This includes Metaliteracy – a framework that integrates emerging technologies and unifies multiple literacy types (e.g., digital, visual, media, information technology, cyberliteracy). Mackey and Jacobson (2011) http://crl.acrl.org/content/72/1/62.full.pdf
The committee has treated “innovation” as the transformation of existing pedagogical practices. Innovation tends to indicate unpredictable disruptions that can transform existing practices completely.

**Statement of Purpose**

The University at Buffalo seeks to enhance the national and international stature of the university by achieving a number of specific academic goals, several of which are directly related to quality of teaching. Published goals for the university include: (1) building intellectual and instructional capacity, (2) enhancing the overall student educational experience while raising the academic profile of its undergraduate, graduate and professional students, (3) significantly improving its undergraduate four- and six-year graduation rates, (4) improving academic support infrastructures to provide state-of-the-art educational and (5) research environments that advance faculty and students in their ongoing pursuit of excellence. In addition, the University at Buffalo is dedicated to further enhancing its faculty and student diversity, which requires innovative instructional methods to meet the needs of heterogeneous learners and to utilize the strengths and support the needs of diverse instructors.

These goals need to be understood in terms of broader trends in higher education. Like many public universities around the country, the University at Buffalo is under pressure to demonstrate its commitment to teaching and learning. While colleges and universities have long been concerned with teaching and learning, the concerns are becoming more pronounced due to myriad social, political, technological, and material pressures.

Perhaps most poignantly, Hunter R. Rawlings III, current AAU president, recently noted that for the first time in his career, senior faculty members were focusing time and energy on teaching. He noted, “Our main job at universities is educating students . . . We forgot about that for a while. But now it has hit us with full force because tuition increases have caused the public to be angry, or skeptical at least, about the quality and the value proposition that they're getting” (Troop, 2013). These concerns have been echoed by long term observers of higher education including former Harvard University President, Derek Bok (2013). In his recent survey of the myriad issues facing higher education today, he noted only a few “matters of genuine concern.” He notes, “The realization that many students are not learning as much as most people expected, coupled with the relentless increases in college tuition, creates a toxic brew that academic leaders and their faculties can only ignore at their peril” (p. 406). As a point of hope, he notes that there has been a “slow but perceptible increase in the use of more effective methods of instruction” (p. 406).

This task force addressed the issue of “innovative pedagogy” as part of a set of initiatives around Curriculum and Assessment. Taken together, these initiatives hope to better position UB in teaching and assessment. Our task force focused on one piece of this broader initiative—“innovative pedagogy/andragogy.”

Just as fundamental curricular components in an academic program depend on sound fundamental pedagogical practice in the classroom, dynamic curricular innovation must go hand in hand with dynamic pedagogical/andragogical innovation if it is to reach new generations of students. Discussions of innovation should address, for example, the introduction of new technologies in course design and course delivery; the development of interdisciplinary analysis (e.g. the intersections between humanistic and scientific disciplines and the cross-fertilizations that take place between the fine arts and the natural sciences); and the implementation of new
modes of classroom communication (e.g., oral, written, and digital literacies). These forms of innovation should always aim to engage students in learning experiences that go “beyond the content of degree programs to the building of life skills.”

The goal of the educational innovation initiative is to provide UB faculty with the knowledge, skills and attitudes to create innovative learning experiences to prepare students to be productive and global citizens consistent with the mission and goals of the university.

**Background**

The Realizing UB 2020 Curriculum and Assessment Task Force established the “pedagogical/andragogical innovation” subgroup as one of five subgroups. This group’s concerns most closely align with the charge that “The university will build a central infrastructure that can support a wide range of faculty teaching and learning initiatives across the campus, regardless of discipline, to prototype new methods of teaching and learning . . .” and to “help faculty reimagine the teaching and learning experience in their respective offerings.” This charge stresses the role of new digital tools but is not limited to them.

Unlike some of the other subcommittees, this subcommittee did not emerge from a previous standing committee. The subcommittee was assembled for the first time in late October. It met weekly from October 28-November 25 for a total of five meetings.

**Relevant Populations**

This subcommittee was concerned with all educators and learners at UB. This includes ladder faculty members, clinical faculty, adjunct faculty, and graduate teaching assistants. We also recognize that staff members are often called to perform educational tasks and should be included here as well. Our suggestions for “foundational” improvement are relevant to all these groups. Our suggestions for impact at the “signature level” and impact at the “national or international levels” would tend to be more relevant for ladder faculty but not exclusively so. For example, we see graduate students and assistants as having a role in some of the projects to emerge from signature or national level concerns.

This subcommittee was concerned with all students at UB. We recognize, however, that the largest population with which we work is at the undergraduate level. We also recognize that students are coming to UB with a wide diversity of backgrounds, experiences, and levels of preparation. Many of our suggestions are for strategies for improvement and innovation at this level. However, we are cognizant that our suggestions for improvement and innovation have implications for teaching at the graduate level as well.

We envision a three-tiered approach to educational improvement and innovation, beginning with a foundational level designed to meet the needs of all instructors, a signature level designed to facilitate the creation of innovative teaching across UB, and a global effort designed to move innovation in teaching to a level of prominence widely recognized nationally and internationally.
Pedagogical/Andragogical Improvement and Innovation at UB3

Initiatives
Teaching and learning initiatives should support the improvement of teaching as well as supporting pedagogical/andragogical initiatives undertaken by the campus – e.g. new General Education requirements. These initiatives include expertise on a range of foundational, pedagogical issues. For example, services may include, but are not limited to, private consultations on faculty looking for help on issues that include instructional design for course development and delivery as well as observation programs for faculty who want feedback on their classroom practice. This also includes support for the use of new and existing technological infrastructure, which cannot be separated from pedagogy/andragogy. Selecting the most effective delivery mechanism is germane for high quality teaching and must be considered as courses are developed. For example, these initiatives can help faculty who have needs related to specific technological issues such as supporting “hybrid” classes as well as assistance with UBlearns to fuse their pedagogical /andragogical plans with the technological delivery of learning. Specific enhancements should include but are not limited to:

- a faculty advisory committee (with a ladder faculty chair) that can help set direction and priorities (including articulating the relationship between support for basic pedagogical/andragogical needs and support for technology use).
- designated staff (with appropriate professional development) or faculty in departments that can make their services more widely known and available.
- seminars and workshops related to new pedagogical/andragogical foci on campus including new directions in general education, global understanding and experiential learning.
- seminars and workshops related to selecting appropriate digital tools and technologies for specific learning experiences.
- programming targeted at new faculty. *We stress that every new faculty member would benefit from such programming.*
- programming targeted at graduate students about to enter jobs where teaching will be required.
- mandatory courses or modules on teaching for all graduate teaching assistants.
- some select reduced course load for incoming faculty coupled with focused coursework on teaching under the guidance of a teaching and learning specialist. While we stress the need for some form of teaching support and programming for all new faculty as well as mandatory modules for all incoming TA’s, the needs may be more intense in some schools and departments. Many incoming faculty have had some teaching experience, though many others do not. Focused coursework under the guidance of a teaching and learning specialist would show them how to do so effectively. Deans and chairs would have to approve release time in these cases and the initiative would develop the appropriate course work.
- mentorship to faculty self-identified or identified by others as having particular challenges or wanting particular help on an issue, perhaps through those identified (and recognized by the University) as exceptional teachers. While faculty can seek out mentorship, department chairs can also work within UB’s existing mentorship policies to

3 Please see “A Final Comment” at the end of the paper for a note on possible administrative structures for these initiatives.
identify mentors but can draw on a wider range of faculty expertise outside of their school or department through these initiatives. We stress that all faculty members can be mentored at various points in their careers and should be seen as part of a broader effort as continuous improvement of all our teaching efforts. Even excellent teachers need to continually grow or develop if they are to remain excellent teachers. Peer-to-peer mentoring can be important here, as well.

- a teaching mentoring experience for all new faculty hires. *We stress that every new faculty member would benefit from such an experience tailored to their needs.*
- a formal commitment by the University at Buffalo to teaching excellence. This would include emphasizing the critical role of teaching in the University’s mission (with strong signaling from senior academic administration), a formal teaching mentorship policy for new (and inexperienced in teaching) faculty. The use of expert teachers to assess faculty teaching performance and submitting an objective report to be considered at the departmental, decanal and University levels when faculty are being considered for promotion.

The committee also suggested foundational, baseline services that UB should provide to better ensure fundamental quality of instruction. These include, but are not limited to:

- a “testing center” that would centralize the administration of exams both seated and online. This was identified as a logistical impediment to current teaching practices at UB and would significantly free up faculty time and energy to take on more foundational concerns.
- more central locations for the teaching and learning center on the various UB campuses.
- more flexible classrooms to allow for a wider range of pedagogical/andragogical practices including around technology use.
- developing different semester patterns to provide real opportunities for multidisciplinary instruction currently limited by term structures.

The committee also identified some key issues related to pedagogy/andragogy that may fall under the purview of other committees or may need be taken up by other, new committees. These include, but are not limited to:

- identifying and if need be creating better metrics for determining the quality of instruction in the student course evaluations (ones that go beyond current measures of student satisfaction).
- developing more comprehensive approaches to addressing teaching in tenure and promotion documents.

**Cost and Complexity**

4 See “UB Commission on Academic Excellence and Equity Proposed University Wide Faculty Mentoring Policy and Program” (2010) for a fuller discussion of mentoring as well as specific UB guidelines and policies including vis-à-vis the role of the chair.
(http://www.provost.buffalo.edu/facultyaffairs/pdf_Faculty_Mentoring_Policy_100410.pdf)

5 See “The University at Buffalo Learning & Technology Task Group (TLT-TG) Final Report” (2009) for specific recommendations in this regard including around levels of classroom redesign and an informal meta analysis of faculty emerging technology needs.
(http://www.buffalo.edu/content/dam/www/ubit/Scoreboard%20Assets/Reports/TLTTaskForce.pdf)
The cost and complexity of any changes to the existing teaching and learning center at UB will need to include the additional cost of having designated staff or faculty in departments who can offer teaching guidance and instruction for both new faculty, as well as graduate students about to graduate to jobs that require teaching.

Some additional suggestions have low cost but potentially high impact, such as instituting a faculty advisory committee to provide guidance on teaching and assessment priorities.

Other suggestions have low cost but a slightly higher degree of complexity. This includes the process by which faculty seek a mentor or chairs reach out and assign external teaching mentors to faculty.

Some suggestions are “foundational” but will add higher cost and logistical complexity. This includes developing a central “testing center,” having a physical TLC presence on all three campuses, revamping classrooms, and developing different semester patterns. These could easily entail one-time costs of over $500,000.

**Signature**

**Initiatives**
If UB is to move beyond supporting its faculty in their existing and growing efforts in the classroom (seated and otherwise), UB can also provide opportunities to help catalyze creative thinking about innovative pedagogy/andragogy. At this level, more of this initiatives’ activities would be driven by faculty’s active and creative input on particular projects. These efforts would be more transformative in nature. That is, these efforts would be concerned not only with improving pedagogical practice at UB but also potentially transforming it in ways that are not yet (and cannot be) defined.

If UB were to provide this level of support, the “faculty advisory committee” discussed in the foundational or mission critical section would take on different roles and responsibilities and perhaps have to be reconstituted. Considering the additional responsibilities, this committee would have either a faculty chair who is perhaps bought out of a course or a full time faculty member whose line is transferred to the initiative. In either of these cases, this person would need more administrative support and additional office space. It is also critical that this person continue to maintain a teaching presence in some capacity.

In addition to providing basic support for improving pedagogy/andragogy, this initiative would then also be where a UB faculty member would go when he or she has an innovative, pedagogical/andragogical idea and wants to see it developed and supported. These innovations would be disseminated across the university and hopefully motivate thinking in others.

We anticipate this work would lead to innovative, cross-disciplinary work. It would be a “bottom up” effort to support innovation. The committee strongly believes that truly innovative ideas are emergent and unpredictable. UB should create the conditions where such work can emerge but cannot direct it from above.
This initiative could include a series of grant proposal mechanisms that might take various forms. These grants could be in the $3,000-$10,000 range depending upon scope and scale. They might include:

- grant proposals for particular innovative teaching projects or curricular innovations that faculty members want to undertake in the classroom (e.g., a interdisciplinary course that takes an innovative approach to STEAM)
- grant proposals for acquiring new technology for projects that have university-wide significance
- grant proposals that could “buy out” faculty time to undertake a project of university-wide significance (e.g., integrating “serious gaming” in courses across the university)

In all cases, the committee (under the leadership of the chair) would develop proposal mechanisms. These would perhaps include at minimum: an abstract; statement of significance to the campus; a plan for development and implementation; a rigorous assessment mechanism related to students learning outcomes; a statement about project dissemination; a detailed budget.

Dissemination across campus is key to spur interdisciplinary thinking. Those involved with this initiative can work with faculty members and support staff to organize dissemination across campus in a variety of formats both traditional (e.g., lectures, symposia, etc.) and nontraditional (e.g., virtual delivery). The chair would also be responsible for developing and coordinating collaborative efforts to sustain innovations that show promise for broader adoption.

We propose topic-based faculty learning communities as one important mechanism in disseminating innovative ideas across campus. A faculty learning community (FLC) is a group of 8-10 faculty members who spend a semester or more working on a teaching/learning topic. These topics can be generated from the proposals noted above. The point person who proposes and organizes the FLC might have proposed the original idea or can be someone inspired by an idea proposed by someone else. A topic-based FLC is a more structured and intense program than a group of faculty meeting about a teaching issue within a department or individual unit. The cross-disciplinary composition results in sharing and dissemination across the university. A FLC requires a commitment on the part of its members to active participation in biweekly or monthly meetings in a face-to-face setting. It is a continuous process of learning, reflection, application and assessment supported by colleagues. Each FLC has a focal project which is explored in seminars and in which participants try out innovations and assess learning. Faculty members might be motivated to participate by a modest financial incentive (for example, faculty can be compensated up to $1,000 each for their participation in these FLCs). We anticipate these FLCs will be a critical part of disseminating and refining pedagogical/andragogical innovations across campus.

We believe that these FLCs have the opportunity to emerge as “communities of excellence” in the form the Provost has articulated. The focus of these communities of excellence would be around particular pedagogical/andragogical innovations.

Finally, a chair of a robust and respected initiative such as that proposed could promote to senior administration a range of other ideas that may emerge from faculty in this process. These may include but are not limited to:
• UB deliberately cultivating a rich menu of three-week winter or summer semester experiences that do not conflict with all our established curricular timings, thus creating a signature feature of all our programs, as we institutionally enable and insist on students periodically broadening their horizons by participating in those experiences
• immersion learning opportunities for students who want a different type of learning experience – whether it is traveling to a global location or in-depth study in a classroom (either online or campus based)

Cost and Complexity

The cost and complexity here is moderate ($300,000 recurring additional funding). Support for this initiative at this level would necessitate establishing a group of faculty members willing to serve in this capacity. Dedicating a faculty member’s line to this initiative would be costly (and depend upon rank and seniority) but would presumably have greater impact particularly in the initiative’s ability to communicate with relevant constituencies across campus. The initiative would also need at least one and perhaps two additional administrative support lines.

A grant pool of $50,000-$100,000 a year would fund a number of projects in the $3,000-$10,000 range.

Global: Towards National or International Prominence

Initiatives

If this discussion is to move beyond UB we need to expand this initiative to broader discussions embedded in the current and emergent research literature and priorities of granting agencies.

We need to think about ways to encourage serious research on teaching and learning that will have significant impact on campus and merit national and international recognition. Several granting agencies are taking these questions more seriously and we will be better posed to put together teams to take advantage of these opportunities.6

We propose UB provide dedicated support for faculty who want to apply for external grants (e.g., NSF, NIMH, NIH, DOE, etc.) for projects related to teaching and learning.

With appropriate support from staff trained in identifying possible grant funding support for educational activities, this initiative could facilitate grant development and coordination of research teams across the university. This initiative could capitalize on the institutional capacity outlined above in ways that would reach beyond UB. This would help teaching become a much clearer part of UB’s research mission and position UB as a national and international “thought leader” on questions coming to the fore of public debate.

This level of commitment would entail dedicated staff to help identify possible funding sources. Staff can be located in the sponsored programs but have primary responsibility to the initiative.

In addition, as the initiative unfolds, possible faculty gaps and needs (e.g., around educational assessment, now a necessary part of education-related NSF grants) would emerge and could inform future faculty hiring.

Cost and Complexity

Having dedicated staff to identify possible sources of grant funding would have moderate additional cost.

Timeline

The varied nature of this charge makes a linear timeline difficult. We offer the below as a general heuristic.

- Spring or Summer 2014-: Immediately implement low cost, low complexity parts of the foundational plan. These include developing a faculty steering committee for existing teaching and learning initiatives.
- Spring or Summer 2014-: Conduct a thorough analysis of the current TLC to identify Strengths, Weaknesses, Opportunities and Threats.
- Spring or Summer 2014-Fall 2014: Identify specific goals for the new initiate and develop detailed strategic plans to implement and assess facets of the plans noted above.
- Spring 2015: Begin identifying and hiring key personnel.
- Fall 2015: Begin full implementation of the above.

A Final Comment

Note that throughout this document, we do not specifically propose a new Center or Institute. We leave it to University administration to determine the optimal structure of meeting the proposed goals. This could be an initiative without walls, a strategic transformation of the TLC and / or it might be possible to form a new Center whose charge is “Pedagogical Innovation.”

References


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Appendix D:

Report from the Institutional Standing Committee on Assessment
### Institutional Standing Committee on Assessment Members

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Appendix D: Report from the Institutional Standing Committee on Assessment

Curricular Assessment at UB

UB must embrace quality curricular assessment and a culture of continuous improvement at all levels to ensure that educational programs not only continue to thrive but also achieve the goals for curricular excellence, innovation, and distinctiveness as called for in Realizing UB 2020: Achieving Academic Excellence. Departments are motivated to reflect and improve upon their programs and also feel external pressures like competition for students and calls for accountability in higher education. Many examples of quality assessment practices and information-based decision making models can be found throughout the University’s many and diverse academic programs. However, a comprehensive assessment infrastructure is required to ensure the culture of assessment and continuous curricular improvement becomes a pervasive characteristic of UB. This infrastructure should be built upon consistent, strong messages from senior leadership about their commitment to assessment and improvement processes that are integrated across the university and foundational in all units.

The State of Curricular Assessment at UB

Currently at UB, curricular assessment occurs at the program level via three separate but related mechanisms:

**Comprehensive Program Reviews (OCPR)**
The Office of Comprehensive Program Reviews (OCPR) was formed in 2006 to create and administer a formal assessment methodology for both undergraduate and graduate academic programs. The goal of the OCPR is to improve the overall quality of education at UB through review of academic programs that are not externally reviewed by a professional accreditation agency or association. Comprehensive Program Review is comprised of two main elements: the Departmental Self-Study and the Site-Visit/Evaluation/ Follow-up Reports. In 2010, the self-study template was revised to include delineation of program-level outcomes, a description of how those outcomes are assessed, as well as improvements made in response to assessment results.

**Annual Academic Program Assessment Report**
In light of program assessment expectations of the Middle States Commission on Higher Education (MSCHE), which accredits UB at the institutional level, the Provost implemented an annual assessment reporting requirement in 2012. Each year, every academic program must submit an annual assessment report which includes the program mission, desired learning outcomes, assessment methods, key results for at least one program outcome, and a brief description of how those results have been used to inform program improvements. These reports help UB ensure that every program is assessing at least one outcome per year, and that, over a three- to five-year cycle, all outcomes have been assessed. Further, the intention of these reports is that they can be compiled and incorporated into the self-study for CPR.

**General Education Assessment**
In Fall 2012, the Dean and Associate Dean of Undergraduate Education and the Associate Director of Accreditation and Assessment mapped General Education Learning Outcomes
to proposed UB Learning Outcomes and developed a three-year plan to assess the twelve knowledge and skill areas of General Education, as well as the depth requirement. Faculty within each area worked to develop and implement an assessment plan for the learning outcomes associated with that area. By Spring 2015, all cognate areas will have been assessed at least once.

Currently, within the Office of University Accreditation and Assessment, there is one professional who can provide assistance to faculty and departments as they embark on assessment efforts and also collect and compile reports for university-wide reporting needs. In addition, there is one professional in the Teaching & Learning Center who can offer workshops and provide consultation in the areas of assessment and instructional effectiveness. These are simply not enough resources to address the assessment need that exists at UB.

**National Best Practices in Curricular Assessment**

A survey of selected AAU and other peer institutions revealed that the most successful institutions in the areas of curricular assessment and improvement have centralized support services with dedicated assessment professionals on staff to assist faculty. For example, the University of Pittsburgh worked to develop centralized assessment expectations and a centralized system for monitoring assessment work using a uniform reporting template. The University of Iowa has created a centralized web site that provides information relating to assessment requirements and guidelines, as well as resources and support for assessment efforts, and provides secure access to assessment reports for every academic program. In a recent survey of AAU institutions, 70% of the respondents indicate that they have a centralized mechanism for supporting and monitoring curricular assessment and that resources for centralized assessment units have increased over the past five years. In light of mandates from regional accrediting bodies, most universities have or are planning professionally staffed offices of assessment.

At most of these universities, the office of assessment or the equivalent is primarily service and administration-oriented, with no research or external outreach focus. Only a very few institutions have research centers related to assessment and evaluation. One noticeable example is the Evaluation Center at Western Michigan University, which focuses on promoting research related to program evaluation, and the affiliated Evaluator’s Institute, providing continuing education in evaluation-related topics (e.g., needs assessment, performance measurement) nationwide. The Ohio Assessment & Evaluation Center located at Miami University (Ohio) is a specialized state-wide center providing expertise in research design, proposal design and preparation, and evaluation planning and execution for science, technology, engineering, and mathematics education projects. The Center for Assessment and Research Studies (CARS) at James Madison University provides assessment services, as well as applied graduate training in both assessment and measurement, and works to increase the use of innovative technology in assessment practice, to increase the rigor of measurement and statistical techniques used in assessment practice, and to produce quality scholarship in assessment and measurement. UCLA’s National Center for Research on Evaluation, Standards, and Student Testing (CRESST) appears to be the most comprehensive center in the country, conducting cutting-edge research and providing comprehensive education and services, nationally and internationally.

**Key Challenges and Opportunities in Curricular Assessment**

A key challenge at UB is that it is large and decentralized, and new mandates require clear and consistent messages from our most senior leaders. Further, many departments have never been required to develop formal plans for curricular assessment, nor do they have national organizations providing leadership in assessment efforts. However, at least two opportunities can
help mitigate these challenges. The first opportunity is related to the timing of the upcoming Middle States Decennial Review in March, 2014. UB has received clear guidance that we need to provide evidence of formalized and sustained assessment efforts in all academic programs which will provide a sense of urgency to motivate academic units. The second opportunity relates to the fact that UB has many programs with specialized accreditations. These programs have been engaged in curricular assessment for years and bring a wealth of knowledge about best practices. Faculty from these programs can provide mentorship in assessment efforts.

**Priority Recommendations**

Our priority recommendations for Academic Program Assessment at UB are driven by the outcomes we believe UB should seek:

1. Provostal articulation of a clear, standards-driven program assessment mandate for all academic units on campus.
2. Centralized leadership and expertise in the areas of curricular design, assessment methods, and course and program improvements.
3. Centralized monitoring of program assessment efforts for the purposes of external reporting.
4. Development of a collaborative of faculty engaged in quality program assessment efforts and using assessment information to improve programs and courses (i.e., “close the loop”) and as an avenue for scholarship.
5. Development of a pervasive culture of assessment and continuous curricular improvement.

We believe these outcomes can be accomplished by appropriately resourcing, staffing and tasking the Office of Assessment within the Office of Educational Innovation and Assessment. The following mission-critical and signature recommendations will ensure that the appropriate infrastructure and processes are in place to achieve these outcomes. Addition of a prominence recommendation related to a Center for Student Assessment and Evaluation, if implemented, ensures that UB will gain national and international prominence in the areas of student learning assessment and curricular improvement.

**Mission Critical Recommendation**

**Empower the Office of Assessment with sufficient staffing, technology, and financial resources to monitor and support the assessment work of the twelve decanal units, including the Annual Program Assessment Report process and Comprehensive Program Review; the General Education Program; and the overall assessment of student learning according to the eight core learning capabilities of UB graduates.**

The components of this recommendation include:

- Hiring at least four full-time professionals with expertise in the areas of curricular design and assessment, program review, educational measurement, survey design and administration, and data analysis and interpretation to staff the Office of Assessment;
- Hiring at least one full-time professional with expertise in data and document management and visual design;
- Investing in a robust computer system (or integrated systems) within which faculty and or units can record their assessment plans and progress that will provide the university with reporting capability and dashboard views of unit and campus implementation status and use of assessment data to inform improvements;
• Providing a common language around curricular assessment and assessment requirements through the development of a glossary, targeted communications, and explicit, standard reporting requirements;
• Providing financial and human resources for creating and maintaining a vibrant website with accessible data on campus unit assessment plans and progress as well as modules, tutorials, resources, a help line, and contact information;
• Providing assessment services, including scoring services, delivering assessment-related workshops, assisting with development of program and course learning outcomes and the design of appropriate assessments, facilitating department meetings and retreats focusing on assessment issues, designing and administering surveys, performing psychometric analysis of classroom tests and assignments, and supporting data compilation, analysis, and interpretation;
• Leading a campus-wide effort to design and implement an effective and efficient assessment plan for digital and online learning; and
• Providing financial resources for UB’s Annual Assessment Day, as well as for other on- and off-campus development opportunities in the areas of assessment and curricular improvement, and as incentives for faculty members.

Mission-Critical recommendations that extend beyond the scope of the center but are critical for building a culture of assessment and continuous improvement include the following:

• Within decanal areas, assignment of assessment coordinators at the decanal and/or departmental level to monitor and support assessment efforts within academic units;
• A central unit responsible for oversight and support of digital and online offerings;
• Appropriate recognition and support for faculty engaged in assessment work, such as course release, administrative support, discretionary salary increases, a Provostal award, and appropriate recognition of these efforts within the promotion process; and
• A university-wide fund to provide modest investments in program/course improvements likely to have a significant impact on student learning and/or the student experience.

In light of immediate needs in the area of curricular assessment related to the impending Middle States Site Visit, the Committee suggests that these mission-critical recommendations be implemented within the next four months.

**Signature Recommendation**

The Office of Assessment will implement the Provostal mandate for systematic and ongoing academic assessment in all academic units on campus, including the Annual Academic Assessment Report Process and Comprehensive Program Review, the General Education program, and overall assessment of student achievement of the eight core capabilities, by providing expert resources and support to academic units and faculty members within those units, serving as the repository for annual assessment reports and fulfilling official reporting requests for external accrediting bodies. Further, the Office will foster a culture of assessment by coordinating the appointment of unit assessment liaisons using a common assessment language, engaging faculty in assessment networks, and restructuring the membership and duties of the Institutional Standing Committee on Assessment. The components of this recommendation include:

• Providing expert centralized assistance to decanal units and departments as they define, refine, and assess program-level learning outcomes, including:
a. Continuous educational offerings for full-time faculty, adjuncts, teaching assistants, and professionals on best practices and methodology;
b. Orientation programs for all UB instructors related to assessment expectations and best practices;
c. “Just in time” assistance and consultation in all areas of assessment, including educational measurement and psychometric analysis of course-based tests and student grading; and
d. An annual assessment institute immediately following spring semester for which faculty attendees and presenters will receive compensation;

- Identifying and supporting assessment leaders in each decanal area who will provide guidance and reporting accountability for their school/college or department;
- Coordinating with unit liaisons the mapping of program-level outcomes to the core capabilities;
- Collecting and compiling annual assessment reports;
- Leading the Institutional Standing Committee on Assessment in review of university-wide policy related to curricular assessment and in annual review of program assessment reports;
- Preparing an annual report on student learning as it relates to overall institutional effectiveness;
- Assisting programs with data compilation for Comprehensive Program Review;
- Developing a collaborative of departmental faculty with interest and expertise in their disciplines who, with training and resources, can assist colleagues in their disciplines to define and implement cohesive assessment plans; and
- Collaborating with University Life and Services and Academic Planning, Budget, and Evaluation on coordination of assessment reporting, best utilizing assessment technology, and sponsoring professional development activities, including UB Assessment Day.

These signature recommendations are essential for UB’s continuing progress in the area of program assessment, and the Committee recommends that a plan be developed to implement each of these within the next twelve months.
Prominence Recommendation

Because of calls for accountability and the urgent need for institutions of higher education to demonstrate their impact on student learning and achievement, assessment of student learning and curricular effectiveness is a national issue. As a premier research institution, UB has the potential to build on a very strong Office of Assessment and create a Center for Student Assessment and Evaluation to impact the national dialog around curricular assessment and improvement. Such a center also would contribute to the crystallization of UB’s Culture of Assessment. There are several needs at UB and in our local community that would be addressed through the services, consultation, and funded collaborative research of this Center:

1. Individual faculty members are expected to use effective methods to assess and grade student learning, but few have formal training in this area.
2. Many faculty apply for education grants (e.g., NSF’s Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics; NIH’s Science Education Partnership Award) to develop new courses and programs, for which a program evaluation plan is required, and only faculty with adequate training and experience in student assessment and program evaluation may perform this function.
3. Faculty members need ongoing support to fulfill the requirements of the Annual Program Assessment Report.
4. With rapid advances in technology, changes in student demographics, as well as increasing demand for accountability, there exists a need for research on new approaches to faculty evaluation in terms of teaching, scholarship, and engagement.
5. Local K-12 educators and community organizations often require services on student/client assessment and program evaluation, and they often look for UB to provide this service.

The components of this recommendation include:

- Creation of a Center for Student Assessment and Evaluation to facilitate research and collaboration among faculty in various UB schools and departments with assessment and evaluation expertise. It will also connect with the university community, as well as local and regional K-16 schools, agencies, businesses, and medical facilities to provide expert services related to assessment and evaluation.

- The above center will perform the following functions:
  - Establish and maintain a network of individuals within UB with expertise related to assessment and evaluation;
  - Conduct research and disseminate results via peer-reviewed publications and national conference presentations in specific areas of student assessment and program evaluation;
  - Collaborate with the Office of Educational Innovation to study the impact of various curricular and pedagogical innovations at UB;
  - Organize faculty to respond to external calls for proposals for research grants related to assessment and evaluation and support assessment and evaluation sections on grant applications;
  - Conduct contract work related to assessment and evaluation for external agencies and institutions;
• Provide guidance to the university community regarding assessment technologies (e.g., software, measurement instruments, scanning hardware);

• Organize bi-annual assessment and evaluation symposiums, as well as regular workshops, where the latest theories and best practices related to assessment and evaluation are shared and disseminated;

• Create and maintain a national clearinghouse for best practices in college student assessment, faculty evaluation and program evaluation; and

• Sponsor a Community of Excellence in Assessment and Evaluation comprised of scholars from across UB garnering external sources of funding to engage in groundbreaking research and education related to assessment and evaluation.

The proposed UB Center for Student Assessment and Program Evaluation is unique in that it will be both service and research oriented and will focus on both student assessment, faculty evaluation and program evaluation. Particularly, this comprehensive center can be distinctive in its focus on standardized development of assessment instruments and dissemination of information due to the existence of faculty at UB with internationally recognized expertise in this area. However, this center is a project that can only begin to develop once the base of UB’s Office of Assessment is in place.

Conclusions
UB is behind its peers in the centralized support of assessment efforts, monitoring of assessment work, and development of a culture of assessment and continuous improvement. Our Middle States site team chair has given us clear direction of where we need to be as a university when the site team arrives in March, 2014. It is imperative that we implement the mission-critical recommendations presented here and develop an implementation plan for the signature recommendations well in advance of that site visit. With the foundation of a very strong Office of Assessment in place, the Center of Student Assessment and Evaluation can become a reality and bring national and international prominence to the institution.
Appendix E:
Report from the Interprofessional Education Subcommittee
## Inter-Professional Education Subcommittee

<table>
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<tr>
<th>Name</th>
<th>Position</th>
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<tr>
<td>Robert Burkard</td>
<td>Chair and Professor</td>
<td>Rehabilitation Science</td>
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<tr>
<td>Arjang Assad</td>
<td>Dean and Professor</td>
<td>School of Management</td>
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<tr>
<td>John Ho</td>
<td>SUNY Distinguished Service Professor</td>
<td>School of Public Health and Health Professions</td>
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<td>Marsha Lewis</td>
<td>Dean and Professor</td>
<td>School of Nursing</td>
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<tr>
<td>Lynn Kozlowski</td>
<td>Dean and Professor</td>
<td>School of Public Health and Health Professions</td>
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<tr>
<td>Paul Wietig</td>
<td>Interim Director</td>
<td>Teaching &amp; Learning Center</td>
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Appendix E: Report from the Interprofessional Education Subcommittee

IPE Subgroup of the Curriculum and Assessment Task Force:  
Fall 2013

What is Inter-Professional Education?


IPE within the Health Sciences

Inter-Professional Education (IPE) is being proposed in health care education to increase the value (Quality/Cost) of service delivery in health care. While it is imperative that we continue to educate/train our clinicians to deliver those services as professionals within their specific disciplines, it is also evident that the siloed approach to education has resulted in suboptimal outcomes, as well as high costs. A fundamental assumption of IPE is that if health professionals train together, and work as a team, the practice and delivery of care will be enhanced. One would expect to drive costs down while maintaining or even improving outcomes.

Status of IPE Nationally (and Internationally)

The current status of IPE is summarized in this section. This summary is based on reports on IPE and Inter-Professional Practice (IPP) from such organizations as the Inter-Professional Education Collaborative, The Word Health Organization (WHO), The Institute of Medicine of the National Academies, The Cochrane Collaboration. In addition, it draws upon presentations from several invited speakers discussing IPE/IPP (from the University of Toronto and the University of Minnesota-Minneapolis), as well as information obtained from an ad hoc committee report on Inter-Professional Education to the Board of the American Speech-Language-Hearing Association (see examples in the Bibliography at the end of this report).

1. IPE has often (but not universally) been limited to a small set of health-care disciplines. The disciplines included most frequently are: Medicine, Nursing, Pharmacy and Public Health.
2. To date, there is limited evidence that IPE leads to increased value in health-care delivery. The collection of such evidence will be a key component of IPE assessment.
3. Barriers to academic IPE include scheduling challenges and resource constraints.
4. A number of professions have included, or are in the process of planning to include, IPE in their certification and accreditation guidelines.
5. A number of organizations have embraced the IPEC Core Competencies for Inter-Professional Collaborative Practice, included in the domains:
6. Values/Ethics for Inter-Professional Practice
7. Roles/Responsibilities for Collaborative Practice
8. Inter-Professional Communication
9. Inter-Professional Teamwork and Team-Based Care
**IPE within the Health Sciences at UB**

The mission of the Office of *Inter-Professional Education and Collaborative Practice* (OIECP) is to prepare the health professions students to be “collaborative-practice ready” when they enter the workforce. The OIECP is led by Paul Wietig, EdD. The OIECP serves the health professions schools of the Academic Health Center, and the School of Social Work. The clinical professions currently involved are: dentistry, nursing, occupational therapy, physical therapy, pharmacy, social work and medicine. The School of Management is an active partner in this effort, and there is an outreach component that has partnered with clinical/hospital networks, health management systems, and eldercare. Importantly, there are other health disciplines at UB that are not currently actively involved in IPE with the OIECP, such as speech-language pathology and audiology. Over the last few years, UB (and more recently the OIECP) have been engaged in activities to support IPE for our students. Perhaps the most visible effort was the creation of the Behling Simulation Center. Other activities include inviting prominent speakers to UB to talk about IPE/IPP, as well as giving presentations on IPE/IPP at national/international meetings. **We believe that the implementation and assessment of IPE in the Health Sciences should be explicitly recognized as one of the priorities of Realizing UB 2020.** It is our understanding that a strategic plan is being developed to make IPE a required component of the health sciences curriculum, with the UB School of Medicine planning on this to occur before its next accreditation site visit.

Given the need and intent of integrating into the Health Sciences curriculum, this would likely provide the most direct path to implementation of IPE as a value-added segment of the health providers’ education. While the integration of IPE into the health sciences curriculum is just being planned, its deployment will undoubtedly take a few years. However, if the initial deployment goes well, UB can strive to become a site for the best practice of IPE within the health sciences. This is especially important as IPE advocates often hold that IPE should not follow a single monolithic model, but that it should be customized based on the practice of health care in the region of interest. Stated otherwise, it may be possible to attain unique advantages by customizing IPE to the specific environment of Western New York.

**Some Key Questions regarding IPE**

Even when IPE is viewed through the lens of the health sciences, several important issues will require sustained attention and investigation. These include:

1. Development of the appropriate program contents and curricular materials.
2. Investigation of the use of a simulation center, and the extent of “fidelity” and realism of the simulation. Costs of using a highly intensive simulation environment for training can be prohibitive.
3. Addressing the significant scheduling challenges, particularly if the IPE program is to target several health professions contemporaneously.
4. Consideration of modes of delivery than are cost-effective and minimize duplication of effort. In particular, modular units may provide greater opportunity for multiple uses across disciplines.
5. Physical presence and co-location. To what extent is the physical presence of all parties involved in IPE training needed or required. How would an on-line component figure within IPE? Are electronic-media simulations a good substitute for the Simulation-Center IPE activities?
6. How to evaluate the value of IPE programs? This calls for the development of an assessment plan for IPE programs and accumulation of evidence of better outcomes being attained through IPE. In addition to practical import, this may provide a research topic for assessment studies.

One can begin by reviewing some evidence about IPE and examine best practices of certain prominent health centers in IPE. Another source may be IOM IPE reports. Assuming that steady progress will occur in IPE within health-related professions, the accumulated experience base and lessons learned can guide future efforts in IPE for non-health-related purposes.

**IPE Outside the Health Sciences**

The sub-committee recognizes that the more generalized use of IPE beyond the health sciences is the key part of its charge. Before addressing this issue, a few observations may be in order.

Within the health sciences, IPE appears to have certain key characteristics:

1. The targeted beneficiary is unambiguous: it is the patient. IPE will only be viewed as a success if it can lead to delivery of better outcomes for the patient.
2. The professional roles of the providers to the patient are well-defined (that is, doctor, nurse, pharmacist, social worker, etc.). Each carries a particular responsibility in the provision of care to the patient. Thus, much of professional practice is ‘silod’.
3. There is a national movement to change the flow of health-care payments to an outcome-based model. The current mantra is ‘Value not volume’ in health care service delivery. This will put pressure on the health industry to better define the outcomes the health providers would be striving for. Outcomes will be most useful if they specifically address quality of care.

One may ask if there are other inter-professional scenarios outside of health that offer a natural and close analogy to the health environment. In our view, this question is important as it serves to define the scope of IPE. If UB is to launch IPE as a university-wide initiative, it will need to clarify what falls under IPE and what may lie outside its scope.

It is now commonplace that certain team and communication skills are essential to the effective delivery of services, indeed, the IPEC core competencies include communication and team building. For example, the idea that engineering teams need to collaborate across various engineering sub-disciplines has been around for a long time and has led to curriculum changes recognized by the relevant accreditation body. Joint programs in engineering and management have been developed to stress the need for such teamwork. Below, we outline some other examples of scenarios where multiple professions are called upon to problem-solve and work collaboratively.

Within the health sciences at UB, communication and team work are two of the four key modules outlined in the current description of IPE within the IPE group coordinated by Paul Wietig. These modules address the four IPEC core competency domains. One can think of developing and using similar modules in scenarios outside the health sciences. The question remains whether this would qualify as IPE by itself, or whether additional factors need to be present for the training to qualify as IPE.

In the remainder of this document, when referring to non-health-related IPE, we will use the term 'Inter-Professional Education for Collaborative Community Engagement (IPECCE)’. When considering non-health-related IPE that includes management and design thinking, we will use the term 'Inter-Professional Education for System-Wide Effectiveness (IESWA)’. This term is
deliberately chosen as an inclusive place holder as the appropriate definition of the targeted system and system-wide outcomes may differ according to context.

Examples of Inter-Professional Education for Collaborative Community Engagement (IPECCE)

*Justice / Environment: Partnering with Community to deal with Industrial Pollution*

Some possible involved professions: Business, Law, Engineering, Psychology, Planning, Architecture, Social Work, Public Health, Nursing, Education, Communications, Geography, Political Science, and History. Beyond specific professions, there is typically need to represent community participants as well, which may be don directly or through simulation/role-playing. A low-income community has experienced serious environmental pollution from industries in their community. A court-case has resulted in a 50 million dollar fine that can be applied to ameliorate the problems caused by the pollution. Possible changes in infrastructure and behavior will be involved. Communication and educational programs will be needed. Another need is a procedure for consensus building that involves active partnering with the community. Teams need to be assembled to help partner with the community to make the best use of the fines. This case allows clarification of different roles and responsibilities and the opportunity to simulate working in teams across diverse disciplines on a problem that demands partnering with the community.

*Special Education:*

Special education in the schools: This context closely parallels IPE in healthcare since the target audience and the roles are well-defined. Of course, the goal is to enhance the value of education. This effort might include Speech-Language Pathology (maybe Audiology), OT, PT, Nursing, Education, Special Education; Rehabilitation Counseling or Psychology or Social Work. The American's with Disability Act, and other similar legislation, mandates that children be provided with a quality education, assuming this can be achieved with reasonable accommodations. School systems are required to provide special educational resources (including assistive technology, aids, special educators, etc.), which often makes the education of these special needs students far more expensive than for a student without those special needs. The high education costs in Western New York (clearly evident in our school tax bills each year) suggest that there might be room for a more efficient way to educate our educators (and special educators), where we maintain or increase the educational outcomes for these special needs students while driving down costs. Again, the similarity to Health-Care IPE is evident. The difference is that we are trying to enhance the value of education (rather than the value of health care).
Core Competencies in IPE for Health Care:  
Provide patient-centered care
Apply quality improvement
Quality of education
Employ evidence-based practice
practices
Utilize Informatics
Work in Interdisciplinary teams
Team-based competencies (Health Care Domains):
Value/Ethics for IPE
Roles/Responsibilities for collaborative practice
education
Inter-Professional Communication
Inter-Professional Teamwork/Team-based Care
Education

Core Competencies for Special Education:
Provide student-centered education
Need Rigorous Assessment to evaluate
Employ (create?) evidence-based education
???
Work in interdisciplinary teams
Team-based Competencies (Special
Education Domains):
Value/Ethics for IPE
Roles/Responsibilities for collaborative
education
Inter-Professional Communication
Inter-Professional Teamwork/Team-based
Education

Who might work with special-needs children in the schools?
Educators, Special Education Teachers, School Nurses, Speech-Language
Pathologists/Audiologists? (for hearing-impaired students), Occupational Therapists, Physical
Therapists, Rehabilitation Counselors/Psychologists/Social Workers, family/caregivers (family-
centered education)

Professions
Educators
Special Educators
School Nurses
SLPs/Audiologists
Occupational Therapists
Physical Therapists
Rehabilitation Counselors
Social Workers
Psychologists

Departments and/or Schools
UB: Education
Buffalo State: Special Education
Nursing
CDS/Arts & Sciences
RS/SPHHP
RS/SPHHP
Education
Social Work
Psychology/Arts & Sciences
The implications for quality of education:

The most cost-effective, and perhaps most socially-acceptable, educational approach is to mainstream the special-needs student. In this approach, students are in the classroom for a substantial portion of the day, and for some part of the day in either small group or individual lessons with a special educator or other professional. The less time spent outside of the regular classroom, the less the social stigma, and the lower the costs. By intensive cross-training of the various disciplines involved in educating special needs students, therapists can incorporate educational goals into their therapy, while educators can learn to adapt their instructional goals and teaching approaches to optimize learning in this population.

Examples of Inter-Professional Education for System-Wide Effectiveness (IESWA)

Management:
The notion of strategy in management inherently calls for the integration of the various functional areas (finance, marketing, operations, logistics, etc.). Strategy implementation involves the coordination and close interaction among various management professionals. Most school of management have capstone courses that aim to achieve such integration. Another frequently used mechanism is case competitions where a complex business problem is solved requiring the expertise of several areas within management.

Design Thinking: The process of design is inherently cross-functional. A design exercise (within manufacturing, architecture, or software design) starts from idea generation (invoking creativity and innovation) and proceeds all the way through detailed costing. Such tools as QFD (Quality Function Deployment) explicitly recognize the need for integration of the various perspectives. The idea of cross-functional design teams is at dates back to at least the 1990s in engineering. In areas like urban design, a host of societal, cultural, and environmental factors further complicate the design exercise.Traditionally, schools of engineering, management, architecture, and various departments offering design curricula have focused on the collaborative aspects of design efforts. These examples of IPECCE and IESWE indicate that rich environments do exist where some form of IPE would likely contribute to the attainment of better outcomes, although the modes of delivery of IPE training may differ substantially from those used in health care.

Linkages with Realizing UB 2020

In considering the adoption of IPE as a university-wide initiative, the synergies of establishing possible linkages with the overarching objectives of **Realizing UB 2020** need to be considered. Several key components of **Realizing UB 2020** offer intriguing possibilities for linkage to IPE:

1. Capstone Experience: the capstone experience is meant to encourage the student to integrate various strands that may have appeared disjoint. IPE integrates the across-profession roles. As other task forces suggest possible capstone ideas, it may be useful to review these to see where IPE might add the greatest value, while keeping the delivery cost in check.

2. Experiential Component: **Realizing UB 2020** calls for an experiential component to the undergraduate (and possibly graduate) education at UB. Certain designs of IPE (such as high velocity simulation) lend themselves naturally to a highly experiential module.

3. Themes: Themes are introduced with the hope of engaging multiple disciplines within UB. One can consider challenging faculty to develop pedagogical opportunities to address IPE within the context of a theme or on the interface of two or more themes.
4. Community engagement: Community engagement projects, along with service learning, offer highly experiential opportunities for students to engage with and contribute to the community. Such projects can be designed to focus on the Inter-Professional nature of the work performed.

Recommendations

**Recommendation 1: Inter-Professional Education in the Health-Related Professions:**

Our first recommendation is to adopt IPE for the Health Sciences formally as a priority of *Realizing UB 2020*. The current administrative framework for IPE in the Health Sciences is working, and hence we do have a process in place that will lead to an administrative structure for IPE or the requisite hiring of new administrators for this major initiative. We request direct support for the ongoing effort to establish and promote IPE within the health professions. We believe that IPE is necessary to help health-related professions students learn to work together collaboratively to provide better value in health care. Furthermore, several health-related professions mandate, or will soon mandate, IPE, and thus this will affect licensure and certification of our students and accreditation of our professional programs. By enhancing the current IPE program here at UB, we will be acting proactively in terms of preparing our students to work effectively in interdisciplinary teams.

**Specific Recommendations:**

1. Fiscally support the education and training in IPE for select staff and interested faculty.
2. Include ALL health-related professions programs in the current Academic Health Center IPE activities, including Communicative Disorders & Sciences and Psychology, in the College of Arts & Sciences.
3. Work on identifying periods of time within the calendar year that are dedicated to IPE, so as to enable all Health-Related Professions students to meet at the same time for “true-to-life” Inter-Professional education activities. This might include: several select days each calendar year, weekends, evening, winter or summer sessions. Perhaps in the future combining IPE with online learning could be used to enhance IPE opportunities.
4. Provide (and fund) several hours of simulation time per student, when relevant for the professions, for a true IPE experience.
5. Integrate research and scholarship for both faculty and students as an integral part of the IPE initiative. There is limited carefully controlled empirical research that has demonstrated the IPE leads to improved IPP, and that IPE improves the VALUE in health care. We could build our distinction by focusing on assessment and evaluation. For example, when is the optimal time for IPE (pre-profession, early in the professional sequence, late in the professional sequence); what type of IPE interaction (lectures or webinars within a profession, Simulation Center IPE experience, online interactions, etc.) produces desired outcomes; what amount a IPE necessary to enhance Inter-Professional practice (IPP) and value in health care (1 hour? 4 hours? or 20 hours?) Furthermore, there are few valid and reliable instruments that assess the value of IPE. Development of instruments would contribute to the evidence.
6. Seek extramural support sources for our IPE initiatives. Foundations and Federal Funding sources have and presumably will continue to fund IPE initiatives. Notably, recently the University of Minnesota-Minneapolis was awarded a $4 million (over five
(80 years) Health Resources Service Administration (HRSA) grant to lead a new coordination Center that will provide national IPE leadership. The Josiah Macy Jr. Foundation, Robert Wood Johnson DFoundation, John A. Hartford Foundation, and the Gordon and Betty Moore Foundation pledged an additional $8.6 million over five years in support of IPE and health care transformation.

**Recommendation 2: Inter-Professional Education for Collaborative Community Engagement (IEPCCE):**

We believe that the main thrust of IPE should initially focus on the Health Sciences. Unlike IPE in the Health Sciences, IPECCE and IESWE are not destined to influence licensing, certification, or accreditation in any profession. Nor is it intended that all students in a given program that becomes involved in IPECCE/IESWE will be required to engage in such Inter-Professional activities. This proposal is intended as a pilot project, which is limited in scope, and used to determine whether there is value added (and faculty buy in) to extending IPE from the health-care domain into the areas of community engagement.

The time-phasing of our overall efforts in IPE also deserves careful consideration. As to timing, we believe that while an exploration of faculty interest in IPECCE/IESWE could take place somewhat in parallel with the deployment of Health IPE, the deployment of IPE in non-health areas should await the initial lessons learned from an actual implementation of Health IPE. In this way, a more effective implementation plan that avoids possible pitfalls can be developed in the Non-Health IPE area.

The following list offers some of the ways this can be accomplished.

1. **Engage Faculty/Identify Target Areas.** IPECCE/IESWE will require innovative design and committed faculty. Since the creative engagement of faculty from interacting disciplines is key to IPECCE, UB should identify disciplines that are excited about this mode of education. Via an outreach process (perhaps including one or more invited speakers giving seminars) will identify faculty that are at least tentatively interested in IPE/IPECCE/IESWE. These faculty—the early adopters—would identify the context for IPECCE/IESWE in their fields and offer a design as to how it would be implemented. One can then spread the word by advertising the successful model.

2. Create an awards competition, where cross-disciplinary groups propose an IPECCE/IESWE pilot to evaluate the benefits and potential barriers of IPE for specific target disciplines and content areas. This could include an annual poster session on pilot projects in IPECCE/IESWE. The winning or winners of the competition could receive another award for the next years’ competition. Note that this fits in well within the theme of pedagogical innovation. This support mechanism might be viewed as an extension (into the educational domain) of the IMPACT program, which was recently announced by the Office of the Vice President for Research and Economic Development.

3. UB should consider identifying blocks of time within the academic schedule where IPECCE/IESWE exercises can take place. This will be required if the students from different disciplines are required to interact.

4. The design of an IPECCE/IESWE module that is highly experiential may fit well within the capstone and experiential goals for undergraduate education.
5. **IPE-Lite**: Consider the development of some resource materials on IPECCE/IESWE that could be shared widely across UB (possibly through on-line delivery). The communication and teamwork modules of Health Sciences IPE may provide a good start for this. Such resources can then be amplified by faculty who use them to provide contextual observations.

6. **Leverage the Realizing UB 2020 themes**: Challenge faculty to propose simulations of real-world situations incorporating key contents from one or more themes. Students can problem-solve together and identify issues that could benefit from the perspectives of a number of disciplines. Such an activity can be offered in different ways: content of an interdisciplinary elective, student competition for the most creative, or inspired solution, an assignment in a required course (several schools agreeing to a format).
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<td>Recurring, medium</td>
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<td>In Part Foundational:</td>
<td>Faculty who embrace the value of IPE, and are trained in its implementation</td>
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<td>(~$300,000-</td>
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<td>Getting the different professions</td>
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<td>Students who engage in IPE/IPP, and are prepared to work in teams to provide better value in health care delivery</td>
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<td>$500,000 per year):</td>
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<td>Faculty Training Costs</td>
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<td>Select faculty who engage in scholarship related to IPE, and attempt to demonstrate the optimal methods, the amount, and the timing of IPE training that improves IPP and value in health care provision</td>
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<td>that IPE leads to better IPP and value in health care</td>
<td>The possibility of substantial extramural grant support</td>
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Inter-Professional Education for Collaborative Community Engagement (IPECCE), and Inter-Professional Education for System-Wide Effectiveness (IESWA)

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<td>Recurring, medium $150,000-$200,000 per year):</td>
<td>Extended time line:</td>
<td>High:</td>
<td>High:</td>
<td>UB would be recognized as a leader (rather than a follower) in IPE</td>
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<td>An administrative line and some staff support</td>
<td>IPECCE would not begin for 12-18 months after the initiation of the extended IPE recommendation, while IESWE would be introduced ~12 months after introducing IPECCE and is seen as continuing for 3-5 years thereafter</td>
<td>The IPECCE/IESWE effort would be more complex than the IPE effort, as it would be a bottom-up process (engage the faculty) and would be engaging faculty outside of the health professions will little or no understanding of IPE</td>
<td>Extending IPE into the areas of community engagement and system-wide effectiveness is truly novel, and would put UB on the map as innovators in Inter-Professional education</td>
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<td>Perhaps one or more invited speakers annually to engage faculty in IPECCE</td>
<td>Annual beta pilot grant program, including poster or podium session</td>
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