

2005 SCUE White Paper

To the University Community:

For 40 years, the Student Committee on Undergraduate Education has worked to promote the academic interests of the University and its undergraduate community. SCUE works with other student leaders and administrators to research and analyze current policy, suggest and implement improvements, and empower students to utilize the tremendous resources at their disposal.

Five years have passed since we published our last comprehensive White Paper on education at Penn. The University has changed a great deal and increasingly finds itself at the forefront of educational innovation. SCUE has been fortunate enough to play a part in this evolution. We have worked to identify the barriers that remain and have contributed to the university-wide efforts to improve and advance undergraduate education at Penn. In this 2005 White Paper on Undergraduate Education, we share our findings, our current work, and our suggestions for the future.

We are proud of the ongoing dialogue on campus around the issues of diversity, research, general education, and many others. We present the 2005 White Paper as a means of beginning or furthering dialogue on the issues we believe are critical to the academic experience, and we offer our plans and proposals in hopes that we can help Penn to advance "from excellence to eminence."

We hope this paper will be received well and will inspire both discussion and action. SCUE is, as always, deeply interested in hearing and discussing reactions to our assessments and proposals. We can be contacted at scue@dolphin.upenn.edu. Also, please explore our website for past publications and information on current projects: <http://dolphin.upenn.edu/~scue>.

We look forward to working together to better undergraduate education at Penn. Thank you for your consideration.

—Gabriel Kopin, SCUE Chair 2006

—Farrah Freis, SCUE Chair 2005

On Undergraduate Education

Introduction

The Student Committee on Undergraduate Education was founded in 1965 on the tenet that undergraduates must have a say in the programs of which they are most integrally a part. Forty years later, SCUE remains at the forefront of academic reform at Penn. Members of SCUE work with other student leaders and administrators to research and analyze current policy, suggest and implement improvements, and empower undergraduates to utilize the tremendous resources at their disposal.

The past five years have seen rapid change and progress that present us with new challenges. In an age where walls are coming down around the world, the administration, faculty, and students of the University of Pennsylvania must not only work to clear the way for these walls to come down, but also to begin to build the bridges that will take Penn "from excellence to eminence." Our challenge lies in building bridges across disciplines, across schools, across cultures, and across generations. SCUE recognizes that rhetoric alone will never build bridges, and that we must work hard alongside one another to do so.

In this White Paper, we aim to identify the walls that exist at Penn and describe our plans for removing them and building bridges between the gaps that remain. We face both institutional and cultural walls, each equally important and formidable. Unlike previous White Papers, this document does not argue for radical changes; in most areas we agree that Penn is on the right track. Being on the right track, however, is only a start. Each of these areas requires concerted effort on all parts and, of course, the commitment of significant resources.

SCUE commits to taking an active role in bringing these ideas to fruition and continuing with the efforts we have been involved in to fully develop them. We have found the administration on all levels to be incredibly responsive, engaging, and committed, and we look forward to a continued mutually-beneficial partnership. Through hard work, dedication, and collaboration, we know we can build a more thriving, interconnected Penn.

Interdisciplinary Studies

One University is the cross-functional, co-educational paradigm that seeks to strengthen the connections among schools and concurrently between schools and the University. It is through this organizational model that Penn can actualize its commitment to the integration of knowledge. Penn has the ability to break down barriers between the disciplines, to help its students truly integrate knowledge, encourage research of the most innovative nature, and to equip its students with the tools they need to be citizens and leaders in an increasingly complex world. We have a long way to go, however, to realize this potential. There are significant barriers, both cultural and institutional, that we must take on to get there.

The Importance of One University

Having four undergraduate schools as well as 12 graduate schools on the same campus creates barriers, but more importantly, it creates tremendous potential that we believe sets Penn apart from its peer institutions. A Penn education has the potential to bridge various academic disciplines and create a vibrant environment in which well-rounded students are exposed to academic, cultural and social diversity. As part of their educational experience, Penn students are not only permitted, but encouraged, to excel in pronounced areas of interest within any of the 12 schools. Additionally, students may explore tangential, developing, or entirely separate disciplines. Every discipline can benefit from engagement with outside fields; integration facilitates academic exploration and collaboration. Despite some obvious examples of successful interdisciplinary ventures, many collaborative possibilities remain latent. SCUE advocates for the creation of additional curricular opportunities to allow for students from different schools and disciplines to interact.

Although decentralized budgeting through responsibility centered management allows departments and programs flexibility and independence, it has also hindered the development of interdisciplinary and inter-school collaboration. Too frequently Penn's financial structure has been used as an excuse. We do not believe it is necessary to change the decentralized management system. Rather, the administration needs to simultaneously correct disincentives for collaboration created by budgeting and create incentives to encourage cooperation. President Gutmann's "Penn Integrates Knowledge" is a promising example of institutional leadership, but it is just a start. Institutionalizing interdisciplinary collaboration requires sustained, high-level, administrative support.

Interdisciplinary Programs within the Curriculum

The existing interdisciplinary programs within one school and between schools provide students with opportunities to gain access to greater intellectual diversity. These programs, however, involve and are only appropriate for a limited number of students. We caution against the creation of new programs as the sole way to integrate disciplines. There are a variety of alternative areas in which potential for interdisciplinary study exists.

The introduction of two interdisciplinary sectors into the new College Curriculum (Sector 6: Humanities & Social Sciences and Sector 7: Natural Science & Math) offers a great opportunity to create additional pilot style, interdisciplinary courses and to refine existing ones. A number of courses developed for the Pilot Curriculum experiment have been successful and should be included among the courses that satisfy these "boxes." The College should not stop developing courses like these because the Pilot experiment is ending. The courses that proved successful did so because of a collaborative and two-way feedback process, and we hope to

see this continue with a number of new courses each year.

Similarly, the debate over the science general education requirements highlights an important place for interdisciplinary courses to shine. Courses like Chemistry 012, "Environmental Chemistry," have been successful in engaging non-science majors in challenging and interesting scientific study, rather than watered down versions of introduction-to-major courses. Again, though, these sorts of courses require that the University and individual departments commit significant resources and energy. If we are serious about science education for non-science majors, interdisciplinary courses will be key to developing the underlying infrastructure.

Opposite the General Requirement, the Senior Thesis presents an important opportunity for interdisciplinary inquiry. For those seniors who decide to pursue it, a Senior Thesis represents the culmination of their studies in the major. Many students, both double majors and single majors, take an interdisciplinary approach in order to fully understand the topic. SCUE recommends that institutional barriers to this kind of work be minimized. Many students are interested in writing a thesis that is relevant to both of their majors and are forced to submit it only to one department. Similarly, students who would like advisors from different departments to sit on their thesis panels are not allowed to do so. Lastly, students should be able to work together on their theses involving similar subject matter from different disciplines. Enabling an interdisciplinary approach to study at the uppermost level of undergraduate work is integral to the success of interdisciplinary studies across the University.

As more students pursue inter-departmental and cross-school studies, we must also ensure that adequate inter-departmental and inter-school advising exists. Currently, these students receive adequate advising to ensure that they fulfill their requirements for graduation. However, they receive very little academic advising to help them formulate a cohesive course of study or integrate their academic experience. Thus, SCUE suggests that departments and schools devote resources to institutionalized inter-departmental and cross-school advising.

In the last five years SCUE expended considerable effort on two minors with interdisciplinary roots: civic engagement and ethics. The Center for Community Partnerships (CCP) and SCUE previously collaborated to develop a Minor in Civic Engagement, the main purpose of which was to promote active learning and research around issues that face West Philadelphia and to promote critical thinking and research skills through the cultivation of community problem-solving and leadership skills. The goal of the proposed "Ethics in Practice" minor was to infuse students' education with a heightened awareness of ethics and sensitivity to its practical implications. Although SCUE is no longer working on either minor, more information on their content can be found in Appendices A and B.

AIMS

In speaking with professors, SCUE has found that professors do not necessarily consider their research to fall clearly into one discipline over another. Rather, they work within a larger context, approaching their area of expertise from multiple perspectives. Students aspire to do the same type of research and to be trained in this integrative approach to academic inquiry.

However, it is difficult for students to do this on their own. Thus, SCUE advocates for the encouragement of students to undertake joint senior projects, such that students from different areas can work together on the same project from different perspectives. One such mechanism for this type of inquiry is AIMS: Action-Oriented Inquiry-Based Multidisciplinary Seminars.

SCUE created AIMS as a proposal to enhance Penn's curriculum through multidisciplinary research and civic engagement. The goal of AIMS is to create an academically rigorous experience that provides undergraduates with the skills and support necessary to perform interdisciplinary research that benefits society. Seminars would consist of a small team of academically diverse undergraduates, collaboratively researching and exploring a complex issue of humanistic importance. Bringing undergraduates from diverse disciplines together to explore an inherently integrative real-world problem will create a dynamic interchange of ideas that stimulates academic growth, intellectual energy, and mental flexibility. The Sayre initiative signifies an exciting opportunity for undergraduates to be intellectually engaged in a complex, deeply significant societal issue. The Sayre Health Promotion and Disease Prevention Program at

the CCP, launched in January 2003, built upon a longstanding partnership with Sayre, a West Philadelphia public school. The goal of the program is to utilize Penn's health resources as well as those of other local resources to improve the health of children and adults in the Sayre community. A description of the AIMS pilot course which ran in 2002-2003 can be found in Appendix C. SCUE envisions the creation of similar multi-faceted research courses which would not be housed in any one department. Specifically, student demand appears to be in upper-level seminars.

Penn's compartmentalized structure sometimes fosters an intellectual distance among its academic communities. Despite Penn's status as a renowned research university, undergraduates are not encouraged enough to engage in the process of inquiry or to participate in the academic community beyond the classroom. Overall, the University's intellectual resources have not adequately integrated research, teaching, and service. The need for creating mechanisms for a more interdisciplinary undergraduate education is immediate and profound.

Problem-Based Learning (PBL)

Problem-based learning is a pedagogical strategy and a way of orienting classes which enables students to expand their own learning and examine complex, "ill-structured," problems from multiple disciplines. Such problems are not well-defined and are inextricably linked with their context; they have no set solutions, and the best solution in one context may not be the best solution in another. Ill-structured problems are already incorporated in many Computer Science courses and business strategy courses, for example. Problem-based learning can be a valuable part of an undergraduate education and thus, SCUE urges a shift in the culture at Penn to encourage problem-based learning as a significant part of the Penn undergraduate experience.

In a PBL course, students begin with a problem in the form of a question and their instructor provides them with the resources, guidance, and instruction necessary in order to examine the complex nature of the problem. PBL courses differ from traditional courses because the responsibility for framing the questions asked and determining the lines of investigation pursued falls primarily on the students rather than on the instructor. As a result, students learn how to organize and analyze information to form their own understanding of a question, developing topical, methodological, analytical, and problem-solving abilities. PBL courses allow students to provide more input in guiding inquiry than they would in standard lecture-based courses. Furthermore, they serve as a good introduction to research and scholarship at the college level, since students will gain experience asking and researching their own questions with the support of fellow students and faculty.

SCUE believes that increasing student access to PBL experiences will significantly advance Penn's academic mission. Since PBL courses confront students with problems and unanswered questions and then ask those students to come to their own understandings and answers, PBL courses are inherently student-driven, empowering students to take ownership of their educations. In addition, PBL provides a meaningful context to integrate knowledge. Since the societal problems that shape a PBL course are inherently interdisciplinary, they provide forums for students and faculty from different disciplinary backgrounds to engage each other, and learn how other scholars approach and deal with the same issues. The goal of the PBL approach is to educate students on how to integrate the conclusions they reach using their discipline with the conclusions that their classmates reach using other disciplines, thereby enhancing their interdisciplinary studies. Finally, PBL courses that are also academically-based community service courses (a large subset already at Penn) encourage students to interact with the larger community as a resource throughout their four years at Penn.

There are both structural and cultural barriers to the effective and well-placed use of problem-based learning at Penn. SCUE has worked and will continue to work to minimize these barriers and help to build problem-based learning into the undergraduate experience.

SCUE believes that every Penn undergraduate, regardless of school or major, should participate in at least one PBL course before he or she graduates. We do not envision this to be a requirement but rather, we hope to achieve participation by creating an institutional culture that encourages all students to take a PBL course by incorporating it into multiple aspects

of the Penn experience. PBL Freshman Seminars, PBL recitations, ABCS courses, and collaborative senior projects could create problem-based learning experiences at various points in a student's academic career. We envision a cultural shift at Penn such that students who are not interested in problem-based learning will have to "opt-out," as opposed to the current situation in which interested students must "opt-in."

We believe that generating this awareness is a comprehensive task, which must begin with prospective students and carry through to all levels of advising. A PBL-infused Penn can truly allow all students to take hold of their education and actively engage in learning inside and outside of chosen disciplines.

SCUE has identified the freshman seminar program as one potential location for creating new PBL courses or modifying existing courses. Students take freshman seminars early in their careers when their schedules are the most flexible and open, making it a great time to explore problem-based learning and college level research and scholarship. Finally, PBL courses that are also academically-based community service courses encourage freshman to view the larger community as a resource throughout their four years at Penn.

Resources for Course Development and Implementation

SCUE believes that the administration should increase the resources and incentives that faculty have to develop PBL courses. Penn needs to expand the support network upon which faculty members interested in PBL courses can rely. SCUE also believes that, when appropriate, professors in all schools should have funding for undergraduate course coordinators who would assist professors in executing PBL courses. SCUE supports continued funding for the CCP's course development grant program, and the possibility of increased funding to allow for more PBL courses. Finally, those professors who are already leading PBL courses should be recognized for their work in this emerging field.

In addition, SCUE advocates for the review of PBL courses to determine which, if any, would be appropriate for inclusion within the General Requirement. Penn students who pursue dual degrees, multiple majors, or multiple minors are left with few electives. SCUE envisions at least one general education course in each sector to be either a problem-based learning course or a course with substantial problem-based components. Another possibility is to modify an already included general requirement course by designating one recitation as a "PBL recitation." Penn should create a system by which professors can designate one or more "PBL sections" to their course. This section could still be run by a TA under the direction of a professor who supports the PBL mission.

To move forward with our PBL mission, SCUE has approached the College Office and we are currently working together on developing a plan to identify faculty members interested in teaching PBL-based Freshman Seminars. SCUE would like to work with the advising offices of all the undergraduate schools to ensure that advisors are aware of what PBL courses are, what types of students can benefit most from them, and resources to which they can refer students so that students may become involved. SCUE would like to work with the administration in all four schools to implement the cultural and institutional changes necessary to take full advantage of the problem-based learning pedagogy.

Research

SCUE has spent considerable time and effort on undergraduate research since its founding. The 2001 White Paper looked to increase undergraduate research to help create a community of scholars. In "Building on Excellence," the Strategic Plan of 2002, emphasis was placed on the importance of undergraduate research. The realization of these goals will require the commitment of significant institutional resources.

The suggestions below represent SCUE's attempts to address the numerous research needs that are found throughout campus. There are three specific areas to which we have devoted the majority of our attention: communication of opportunities, availability of research, and the creation of intermediate research experiences.

The communication of the various opportunities for research can be enhanced in a variety of ways including workshops, an improved website, research fairs, and Library services.

Workshops

As part of providing undergraduates access to, and information about research at the University, workshops should be created with one of two foci. One should address issues about how to approach research and how to access research on campus. It should offer guidance to students choosing what sort of research they wish to be involved in, explain how to locate available offerings, and help connect students with faculty research and established projects. The second workshop would be for those interested in pursuing more advanced research opportunities and would provide advice for students who already have specific independent research aims. The workshop would offer advice on finding support for grants and fellowships and other avenues that may support their research efforts. The resources to organize these workshops already exist at the University, but currently they are spread across various centers and departments.

Improved Website

Penn's diversity and size make it a leading research university, but, at the same time, complicate communication. The Center for Undergraduate Research and Fellowships (CURF) successfully manages grant-based and independent research projects, but does not provide resources for the full spectrum of research options available at Penn. There is currently no complete, exhaustive, University-wide online resource for research. The CURF website, www.upenn.edu/curf/ is an excellent resource for students seeking prizes and fellowships, but does not provide the full scope of research offerings. A directory of research opportunities with faculty is available on the CURF website, but is not actively maintained. This website must be kept current, and it should be designed so that the postings can be easily and regularly updated by the person who is advertising the research. In order for Penn to enhance its community of scholars, the University needs to develop a searchable database. In addition to faculty, this website should include graduate students who are seeking undergraduate assistants.

We also propose the creation of an overarching website focused on research, expanding upon the current www.upenn.edu/research. Available materials should include the CURF database, detailed departmental information, research-related news and basic Q&A topics.

Research Fair

SCUE hosted the first annual Research Fair in January 2004 as part of its Education Week. The Fair was modeled after the Course Majors Fair and was an opportunity for professors and graduate students to share their research with the undergraduate community. Students learned about specific research being conducted at Penn and about opportunities to participate. In the future, SCUE hopes to include local institutions that offer research opportunities, such as the Philadelphia Zoo or the Philadelphia Museum of Art. Coordinators of the Research Fair worked in conjunction with CURF and Career Services. Before undergraduates are able to perform their own research, they must first be exposed to the research that is already being conducted on campus. This can not happen without an avenue for sharing and publicizing opportunities. In order for the Fair to grow, SCUE needs the increased support from all University departments in encouraging their faculty members and graduate students to participate in the Research Fair and participate in research with undergraduates.

Library Services

SCUE recognizes that the Library has worked hard to address undergraduate research. We agree that the most effective way to address the issues relating to the Library is through collaborative efforts between the Library and the undergraduate schools. Students focus their time and energy on courses and coursework. Consequently, students are most likely to learn about and use new research tools when they are introduced in the context of courses. There are a few ways that the Library can do this. All Blackboard and WebCafe sites should have links to the Library resources. Professors, especially those with courses populated by first-year students, should invite librarians to visit classes to describe and explain Library resources. Additionally, the Library should sponsor information sessions for faculty to inform them of new resources and encourage them to be more proactive in helping their students use Library resources.

The improvements made by increased communication can only go as far as the extent to which research is available. Any student who would like to participate in research should have that opportunity available to them. SCUE

is currently taking inventory of the undergraduate research taking place at Penn to better understand the situation. SCUE recommends the creation of incentives for professors to involve undergraduates in their research.

Penn Undergraduate Research Experience (PURE)

Undergraduates generally receive the least attention from faculty for involvement in projects. To this end, a proposal made by CURF several years ago should be reexamined. PURE would support new programs by awarding grants for proposals submitted by faculty members that promise to increase the participation of undergraduates in significant research. This source of funds would allow faculty to pursue projects beyond their primary research interest. Proposals could be individual, department-wide, or inter-departmental. In all cases, a faculty member would serve as Primary Investigator. CURF would promote and administer the competition for the grant. SCUE urges CURF to proceed with this program and to set this program as a priority in terms of allocating relevant funding. In order to do this, however, CURF requires funding from the administration.

Building Research Intensive Components (BRIC)

Learning intermediate skills and experiences is a necessary precursor to conducting advanced research. Often times, Penn students lack the research skills necessary to perform independent research. To address this concern, SCUE advocated for the creation of a specific curricular program to encourage undergraduate research within both the general requirement and introductory courses. SCUE, in conjunction with CURF, proposed the pilot of a new program, Building Research Intensive Components (BRIC), which would work to infuse research into the freshmen and sophomore experience. The goal would be to give students a guided and meaningful research experience early on in their academic experience. SCUE designed BRIC to be a low cost and high benefit program, but despite initial enthusiasm for the program, BRIC has yet to be implemented. We would like to work with the administration to review the BRIC proposal and begin its implementation.

There are two forms BRIC can take. In currently existing larger lecture classes, certain recitation sections would be designated as "research-intensive." This would mean that students work on a research paper or project based on class material. The recitation leader would be a graduate student functioning as a research mentor who would teach research methodology and guide students through the process. This model is adaptable to different class settings and different disciplines.

Teaching & Learning

Learner-Center Learning (LCL)

In reviewing recitations at Penn, SCUE examined class structure, pedagogical methods employed, training of teaching-assistants, and professors' thoughts. We conclude that most recitation settings do not stimulate students to reach their full intellectual potential. Thus, SCUE has promoted a new pedagogical model: Learner-Centered Learning (LCL).

The Philosophy: How classes will be different

Traditional recitations usually serve as a time to revisit material presented during lecture, review questions from homework or exams, and at times, consider new ideas or extensions of the material. SCUE does not seek to change the underlying mission of recitations. However, it is our contention that the best way to learn anything is through active engagement with it. Several studies in educational literature confirm that active learning is more effective than traditional recitation. An LCL recitation reverses the traditional roles of teaching-assistant (TA) and student, such that students raise their own questions, solve their own problems, and respond to each other's inquiries. The TA in this case serves as a guide, helping to encourage discussion in a particular direction, or stepping in when confusion arises over a particular concept. An effective LCL teacher strives to ensure the active participation of every student in the classroom. An LCL class is not an arena for erratic, inefficient, or irrelevant discussion. Rather, it changes the student from a passive listener to an interactive learner, and thereby improves the student's mastery of course material and its implications.

Applying the Theory: LCL in Practice

SCUE proposes a variety of strategies for making current recitations more learner-centered. In the Humanities and Social Sciences, one possibility might simply be to require students to come to class having prepared an answer to a question posted before the class period. This forces

students to engage with the material before coming to class and gets them participating in dialogue from the first minute they enter the room. This type of classroom, where minds are engaged considering the viewpoints of others, accomplishes much more than the review-session type recitations that often occur. In the Hard Sciences, an LCL recitation could have students present their solutions to homework problems and field questions on their presentation from their classmates.

TA Training & Evaluation

SCUE worked with Dr. Myrna Cohen, director of the Weingarten Learning Resources Center, Library Services, and the Graduate Student Center to pilot several LCL training sessions for TAs which included the distribution of an LCL handbook of classroom activities (Appendix D). In addition, SCUE co-authored with Dr. Cohen a piece on LCL recitations in *Almanac*'s "Talk about Teaching and Learning" series.¹ SCUE aims to expand these training sessions to the school-wide TA training, which occurs before fall semester. We look to the administration for support in including an LCL session in training for all TAs.

Additionally, SCUE suggests that each school review the process of TA evaluation. Currently, TA evaluation lacks standardization across disciplines and between schools. In fact, some TAs are never evaluated by their students. In cases where TAs are evaluated, it is through the "SCUE forms" which are submitted to the department. However, there does not appear to be a standard procedure for review or a formal course of action for TAs that consistently receive poor evaluations. Furthermore, the "SCUE forms," which were designed to evaluate professors, are not necessarily the most appropriate means of evaluating TAs. TAs should be evaluated at both the middle and end of the semester, in order to encourage improvement. SCUE looks to each school to standardize the process by requiring all TAs to be evaluated via an assessment tool that is created specifically for TA evaluation, centralizing the departmental review of the evaluations, and retraining all TAs that receive below average evaluations.

Diversity in the Academic Experience

For years, Penn's students, faculty, and administration have grappled with the exceptional challenge of leveraging our community's diversity to our advantage. In response to the changing Penn culture and specific proposals, we have worked increasingly closely with Penn's minority coalitions and organizations to create solutions that allow us to make virtue of our diversity.

The challenge has been exacerbated by misperception and miscommunication among faculty, staff, students, and administrators because we lack a common vocabulary with which to discuss the complex set of issues that are loosely grouped under the "diversity" umbrella. Additionally, University committees, resource centers, and student groups working on diversity may have similar visions yet engage in disparate, uncoordinated, and sometimes counteractive initiatives.

Penn has reached a watershed moment. Programs, such as the Program for Awareness in Cultural Education (PACE) through the Greenfield Intercultural Center and the Dialogues on Race program held in honor of the 50th Anniversary of the *Brown v. Board of Education* Supreme Court Decision, offer students opportunities to challenge their beliefs. University administrators have indicated their commitment to these issues and have joined in the effort through programs such as the University's annual events to commemorate Dr. Martin Luther King. Student feedback overwhelmingly indicates that they are interested in these issues, motivated to bring about change, and organized to do so. With successful programs in place, there are opportunities to further institutionalize these efforts and ideals.

Recently, SCUE evaluated the role of diversity in higher education in the context of a "cultural analysis" requirement as part of each school's undergraduate general requirements. After extensive discussion, SCUE, much like the student body, was deeply divided on the issue. We decided not to support or speak formally against any proposal, nor did we feel it appropriate to formulate a proposal of our own. Last spring, the faculty of the School of Arts and Sciences approved a SCUE proposal including a "Global Cultural" requirement as part of the new College curriculum. The

¹ Cohen, Myrna L., Matthew Grady, Samantha Springer, "Centering on Learning at Penn," *Almanac*, October 21, 2003, 8.

sharpening of this requirement was tabled to this year, so that the entire University community might have the opportunity to help shape this first hint of a “diversity” component in Penn’s College of Arts and Sciences’ curriculum. In order for this requirement to achieve its goals, it is necessary that the definition process be open, thorough, and inclusive. More importantly, though, it is crucial that the final decisions be made on the basis of educational goals, not political ones.

As the University embarks on its next strategic plan, we as a community must arrive at a common vision and a set of common guiding principles to steer our disconnected efforts into coordination. Planning must be coordinated between all levels of decision-making, from strategic planning, to the academic curriculum, to the implementation of programs and courses. Finally, the smooth execution of this planning process hinges upon the active leadership of committed, high level administrators in addition to students, faculty, and staff.

This community visioning process will require a concerted effort on all of our parts. In order for this dialogue to be successful, SCUE advocates for three preliminary steps. First, as a community, we must frame the issue of diversity and identify a shared vocabulary and common objectives. Second, although every member of the University community is a stakeholder in this process, we need to agree upon a core team to take part in this conversation on a regular, intensive level. Third, this core group needs to arrive at a strategy for deliberation. As many groups have had ample time for individual research and contemplation, it is now time for collaborative dialogue and collaborative action.

College House System

During the brief time since its inception in 1998 the College House System has created dramatic improvements to the undergraduate living experience. Continued attention and effort will only make the system better. Although several specific items are addressed below, the overarching issue facing the College Houses is one of culture: a negative perception towards living on campus still exists, especially among upperclassmen. Time may be the best solution for this problem, but a continued emphasis on improving the current system will help to speed up this shift of campus opinion.

Regarding whether to have freshmen-only housing, it seems that more emphasis should be put on where not to house first year students. SCUE recommends that no first-year students be assigned to any “non-freshmen” College House unless they have explicitly requested such on their housing application. This applies most importantly to the high-rises, which can be isolating living environments for first year students. Only students who request to live in these buildings should be assigned to them. Therefore, before considering freshman-only housing, the administration should ensure that all first year students are placed in a College House better designed for the needs of new students.

In-house programming has been one of the big successes of the College House System, and should be built upon to increase a sense of community. Forming stronger connections with faculty by better integrating them into the “curriculum” of College House living will be a key improvement. Both the faculty and residents should be more actively engaged in planning a range of events, such as lecture series, meals, outings, and other social-academic activities. After surveying our peer institutions, SCUE recommends that more money be allocated per-student for house events.

Along the same lines, opening College Houses to more University events would integrate them more seamlessly into the academic environment at Penn. Although this should be done with caution so that residents do not lose their sense of ownership, bringing the entire community into College Houses will extend the role of residential programming within the academic community. College Houses should be seen as environments for intellectual interaction and stimulation, not merely as places to live.

Some of the most successful examples of in-house programming designed to increase scholarly interaction are the residential living-learning programs. These programs provide additional opportunities for students to engage with faculty and share intellectual interests with hall-mates. However, existing programs have seen mixed degrees of success. Many current residential programs lack substance and consistency. Programs that appear robust on paper often do not meet expectations. Recognizing that student interest truly shapes these programs, but that issues of organization and continuity require institutional involvement, more administrative

commitment is necessary to strengthen these programs.

To support continuity within these programs, and to oversee their various activities, SCUE calls for the creation of an administrative position to supervise all residential programs. This position would not be that of a house dean or other administrator; it would be an individual to whom GAs running residential programs campus-wide would report. This position would maintain information on each program, to ensure continuity from year to year, and would ensure that program halls are in fact engaging in their respective themes. The RAs and GAs running each program should be knowledgeable about their subjects and committed to leading their programs.

SCUE is very excited about the Franklin Community, a new living and learning community created as a joint initiative of students, College Houses and Academic Services, Civic House, Greenfield Intercultural Center, and the Center for Community Partnerships. Housed in the Stouffer College House Annex, the Franklin Community serves as a learning and living community dedicated to developing civic leaders for an increasingly democratic and culturally complex world.

Internally, the house will develop students into leaders committed to rising to the challenges of a diverse democracy. Externally, it will serve as a model of what Penn can accomplish by bringing together a talented community of scholars to confront some of the fundamental challenges of our society. As a result, the program will demonstrate the full potential of a Penn education. The basic proposition of this program is that Penn can best develop civic leaders by exposing them to holistic, nurturing learning and living environments. A community living environment is essential to this program because it ensures that participants interact with each other outside the classroom in unstructured and unscripted encounters. Moving part of the learning experience outside of the classroom will encourage students to develop an understanding of how their education fits in the broader context of society.

SCUE advocates for the creation of more programs similar to the Franklin Community that would more directly connect academic life and student learning to the College Houses. We envision the creation of multi-year programs in which students who were involved as first year residents would return to their House as upperclassmen and work as advisors in planning the programs, even if they no longer live in the House. First year students would benefit from the passion and experience of upperclassmen, and students who no longer live in the House would strengthen their ties to their College House, creating a community of students who are passionate about their residential program and the College House System.

Increasing student participation in house governance would also improve programming and loyalty. Similarly, students who work in a college house as an ITA, RA, or other job are more likely to remain in that house for multiple years. The goal should be to increase this involvement so that all residents have a stronger sense of House identity. A greater effort must be made to retain upper-classmen either within, or affiliated to, a College House. A sense of community is significantly enhanced by the presence of multi-year residents. Equally important is the role College Houses can play for off-campus students. Currently, students living off-campus can receive free ITA support from their last on-campus College House. Programs like this should be better advertised, and alumni residents should be made welcome to participate in house events.

Academic advising is central to students, especially first year students. Where they exist, in-house advisors have proven to be very successful, and should be expanded upon. Although it is impossible for all students to have advisors from within their College House, steps should be taken to ensure that all house-affiliated faculty have in-house advisees. Additionally, the presence of graduate advisors within College Houses has been well received, especially within halls that contain a high percentage of first year students, and should be increased.

A house-affiliated dining location is very important in building a sense of house community. Hill and Kings Court English dining halls do much to enhance their respective communities, while the high-rises and the Quad lack such an area. Drastic measures, like building dining halls in the basements of the high-rises, have been proposed; however the costs of these projects are prohibitively high. In those houses in which dining facilities do not exist, Houses should host dinners for all interested residents, as well as regular meals with faculty masters and affiliated faculty. In the long-term, additional house dining locations should be a priority.

especially in any new College House that may be built.

Advising

Advising is crucial to the academic experience, in that it can serve as the portal through which all other resources at Penn can be accessed. SCUE recognizes that many undergraduates, especially in the School of Arts and Sciences, are dissatisfied with the current advising system. Certainly, there are inconsistencies between students' expectations and the defined roles of faculty and staff advisors. SCUE is currently working to pinpoint the problems with advising and to investigate a variety of potential solutions. We look forward to collaboration with the student body, faculty, and administration to improve this important aspect of the undergraduate experience.

UAB/UABC

SCUE was one of the groups originally responsible for the creation of Undergraduate Advisory Boards (UABs): groups of undergraduates in a specific major in order to serve as an advisory board to the department on issues of student/faculty support and as a means to organizing a group of like minded and interested students within a discipline. SCUE organized the Undergraduate Advisory Board Consortium (UABC) to serve as a resource for inter-UAB discussion. In 2003, SCUE and the College Dean's Advisory Board (DAB) joined together with the UABC and the College Office to host a UAB Symposium. The Symposium addressed ways of starting new UABs in a major, the quality of advising in different majors, and student-faculty interactions within majors. It was clear that the activity level of a UAB depends on the degree of support which the department gives to the UAB as well as the motivation of involved students.

SCUE hopes that UABs will serve both internal and external roles. Internally, UABs strive to create a community for majors and work to improve and increase student-faculty interaction within the department. The Anthropology UAB (AUAB) has been extremely successful in developing a network for peer advising for prospective and current anthropology majors and in increasing student involvement in departmental events. AUAB provides "Welcome Back Receptions" for its majors and has panels on summer employment, the senior thesis process, and the application process for graduate schools. UABs have also been creating external networks and helping to develop an intellectual community. The English UAB has worked to open the department to all students. In January 2005, they hosted a "Read and the Blue" event, based on the Penn Reading Project. They encouraged all students to read *A Clockwork Orange* over winter break and then held a discussion led by students and faculty members of the department.

Due to a combination of factors, including changes in student leadership and questions of purpose, the UABC has since fizzled. Although a handful of UABs are strong, they tend to be the exceptions. The UABC was in the process of working with specific groups of students in creating new UABs, but many encountered resistance from departments.

In order for the UABs to thrive, they need financial and moral support from individual departments. UABs serve important roles, and the College Office could play a key role in supporting them. DAB and SCUE are committed to UABs and ask the Dean of the College to urge department chairs and undergraduate department chairs to allocate funds and resources for UAB activity.

Penn Course Review

In 2003 SCUE and the UA collaborated to revive the *Penn Course Review (PCR)*: a publication of professor evaluations for students to use in choosing courses. The information is taken from the "SCUE form." PCR, which was formerly published in print, is now available to all registered students online and at no cost.²

SCUE and the UA are committed to a joint, continued involvement in PCR in order to ensure its future growth and success. With the move from hard-copy to electronic postings, PCR is working on finding the most efficient way for students to post comments and review data. Cooperation from the administration in obtaining the required data in a complete and timely manner is crucial to the existence of PCR. SCUE will remain in an advisory role in order to help PCR achieve these goals.

Summer Internships

In the job market, employers are not only looking for employees with a college degree, but for those who already have experience in applying their knowledge. Internships are gaining importance in higher education because of the professional training they provide to students pre-graduation. These experiences can help students gain the practical experience integral to success in their future careers.

SCUE investigated the process of finding internship opportunities and getting academic credit for them. The subcommittee found that there is a need for a push to help students interested in the humanities to find the same breadth of internship opportunities available to students in the hard-sciences and business. In the College, Dean Bushnell created a summer apprenticeship program for students in the social sciences and humanities that places undergraduates in University-affiliated centers. Since its inception, the Summer Undergraduate Research Internships program has attracted wide support and funding. SCUE recommends the expansion of the apprenticeship program and others, both paid and unpaid.

Furthermore, SCUE found that many unpaid internships require that students receive college credit for their work. While such credit is not automatically granted at Penn, students can incorporate their internship into a for-credit "independent study." SCUE encourages the administration to formalize this process and designate a specific contact within the University responsible for facilitating the pairing of students with faculty members for independent study opportunities. This person could also connect students with faculty members in schools without undergraduate programs. Similarly, SCUE urges academic departments in the social sciences and humanities to encourage their professors to publicize possible summer independent study projects, internships, and research opportunities.

Intellectual Community

SCUE and Penn share the goal of cultivating a community of scholars. Despite its outstanding commitment to academic excellence, some students feel that Penn lacks a thriving intellectual community. The University needs to examine the intellectual community and explore potential ways to expand this environment.

Footnote Recitations

Penn's large introductory lectures provide an analysis of the subject matter in a setting which can sometimes be incomplete, impersonal, or overly simplistic, especially for students who are declared or intended majors. SCUE piloted the Footnote Recitations program to combat this issue. A Footnote Recitation is a small group of students who voluntarily meet outside of a lecture to discuss readings that are extra-curricular, yet pertinent to the subject. Footnote Recitations were to consist of undergraduates, but interested professors or graduate students were encouraged to participate as well. The suggested readings and guidance was provided at the beginning of the semester by the professor.

Footnote Recitations have two distinct objectives. First, the Footnote Recitation could promote an intellectual community at large, allowing even non-majors to further explore a specific subject mentioned in lecture. Second, the Footnote Recitation could serve as an engine to create a close-knit learning community among the declared majors within a given subject area. We piloted Footnote Recitations in three courses: Anthropology 003: Introduction to Human Evolution, Ancient History 026: History of Ancient Greece, and Psychology 162: Abnormal Psychology. The program had varying levels of success. The recitations in which the professor led the discussion were more popular than the sessions led by a graduate student, and those sessions led by an undergraduate were the least popular. Unfortunately, time constraints prevented professors from participating on a larger scale. However, all participating students felt that the program was worthwhile. This is an area in which the UABs, which have closer relationships with the departments could be involved.

Education Week

The goal of Education Week is twofold. First, this week was intended to generate dialogue about education among undergraduates in the hopes that students will actively participate in and think critically about their own education. Second, it attempts to inform students of the resources available to them to maximize their educational experience.

In addition, SCUE hosts a wide range of events focused on Undergrad-

² <http://www.vpul.upenn.edu/coursereview/>

uate Education during Education Week. SCUE created the student-run, cross-school “Spotlight on Teaching” award to celebrate professors committed to giving interesting and engaging lectures in the Humanities, Social Science, and Hard Sciences. SCUE also hosts dinners for students with administrators around campus to give students the opportunity to interact with administrators in a relaxed, informal setting. SCUE also organizes various panels on topics including civic engagement, research, academic integrity, and the place of diversity in academics. SCUE also holds the Research Fair, in an attempt to link undergraduates interested in research with graduate students and faculty. SCUE plans on continuing Education Week and continuing to promote academic engagement on all levels.

Conclusion

In the 40 years since the Student Committee on Undergraduate Education released its SCUE Report, the University of Pennsylvania has undergone remarkable change.

Penn’s dynamism is a testament to our unique and flexible core doctrine, “the Pennsylvanian Way.” As this philosophical core of the University, the Penn Way is not a set doctrine, but an institutional commitment always to reach higher. With the publication of this White Paper we continue to reach higher, working to leverage Penn’s strengths for the development of our campus community and the benefit of our world.

We have attempted to be comprehensive in our coverage of the issues: from possibilities in undergraduate research, to pitfalls in academic advising, to the opportunities for innovative classroom instruction. As Penn embarks on the upcoming campus expansion, the details of which are likely to consume the University’s attention over the next several decades, the prospect for growth at the University of Pennsylvania seems brighter than ever. The members of the Student Committee on Undergraduate Education, past and present, hope that the ideas, initiatives, and goals in our White Paper will be given serious consideration as we continue working together to improve the University of Pennsylvania.

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Appendices

Appendix A: The Minor in Civic Engagement

The Minor in Civic Engagement would attempt to:

- Improve the West Philadelphia community by linking the intellectual resources of Penn to the community.
- Promote research, problem-solving, and leadership skills through the integration of theory and practice implicit with service-learning.
- Create a cohesive ABCS experience.

Structure of the Minor in Civic Engagement

The structure of the Minor in Civic Engagement is comprised of six courses from four tiers to ensure that students in the minor receive a well-balanced, problem solving, civic education. The tiers include a theory-based grouping, a service-learning component, a capstone experience and a fourth, flexible component.

The theory-based courses promote the investigation and understanding of real world problems in an academic setting. They will help students understand the reasons these problems exist and different approaches to solving them. The courses provide a solid foundation from which students will have the information and skills necessary to better engage themselves in the community.

The service-learning component of the Minor gives students the opportunity to put theory into practice. The courses in this tier draw from the variety of Academically Based Community Service (ABCS) courses already being offered at Penn. With a strong academic focus, these courses will encourage students to actively address existing issues in the community and work collaboratively with their professors and fellow students to develop a possible solution. They promote active learning by doing. Students must take two service-learning courses, but are encouraged to explore the wide range of ABCS courses available.

The Minor will be completed with a capstone experience. Capstone experiences may be independent studies, research seminars or senior theses projects. The project should be problem-based and relate directly to the chosen Minor Concentration. The capstone should be based in both coursework and field experiences. It will normally be fulfilled after students have completed the theory-based and service-learning components of the Minor. The capstone will serve as the culminating experience of Minor.

I	Theory-Based Courses	2 c.u.’s
II	Service-Learning Based Courses	2 c.u.’s
III	Capstone Experience	1 c.u.
IV	Community Service	60 hrs or
	3rd Service Learning Course	1 c.u. or
	2-semester Capstone Experience	1 c.u.

This is in no way an exhaustive compilation of all the courses that would be appropriate for this Minor. Below is a sample course listing for a concentration in Health in Urban Communities.

Health in Urban Communities	
Sector/Course Number	Course Title
BIOL 140	Theory-Based Courses: Humans and the Environment
HCMG 101	Health Care Systems
HCMG 202/ECON039	The Economics of Financing Health Care Delivery
HSSC 005	American Health Policy
HSSC 010	Health and Societies
URBS 201	Urban Health Systems
URBS 264	Poverty, Race and Health
ANTH 310	Service-Learning Courses: Anthropology and Biomedical Science
ANTH 312	Health in Urban Communities
ANTH 359	Nutritional Anthropology
ANTH/HSOC 441	Cross Cultural Approaches to Health and Illnesses
ENVS 404 (GH)	Urban Environments: Childhood Lead Poisoning
ENVS 407	Strategies to Prevent Adolescent Tobacco Use
ENVS 408	The Urban Asthma Epidemic
HSSC 317	Health in America: Historical Traditions of Education and Community
PSCI 135	The Politics of Food
Capstone Experience	Independent Study, Research Seminar, Senior Thesis

Appendices, continued

Appendix B: Ethics Minor

Students would take six courses to complete the Ethics in Practice Minor and take at least four of these six courses outside of their major or concentration. Again, this is only a sample of some of the courses that would be appropriate to satisfy the Minor and is in no way an exhaustive listing.

Required Coursework would include PHIL002, two from the (B) sector, two additional courses from the (C) group, and the Independent Study (D).

A. PHIL002: Ethics

B. Philosophical Foundations:

- PHIL372: Topics in Ethics
- PHIL566: Kant's Moral Philosophy
- PHIL572: Contemporary Ethics
- PHIL427: Moral Psychology
- PHIL072: Biomedical Ethics
- PHIL079: Environmental Ethics
- PPE008: The Social Contract
- RELS112: Religious Ethics and Modern Society
- WSTD/COML/PHIL028: Feminist Philosophy

C. Applied Ethics:

- CIS590/CSE355: Computers, Ethics and Society
- COMM339: Critical Perspectives in Journalism
- EAS 001: Engineering Ethics Seminar
- HCMG203: Clinical Issues in Health Care Management
- HSSC118: Sociology of Bioethics
- HSSC215: Computers, Ethics, and Social Values
- LGST210: Corporate Responsibility and Ethics
- LGST220: International Business Ethics
- NURS 330: Theoretical Foundations of Health Care Ethics
- NURS525: Ethical Aspects of Health and Technology

D. Independent Study* (1 c.u.)

The Independent Study must be taken after the student has fulfilled at least three of the other minor requirements, including (A).

Appendix C: AIMS Pilot

The AIMS Pilot: "Improving Community Health and Quality of Life in West Philadelphia; The Sayre School-Based School and Community Health Promotion and Disease Prevention Center."

The considerable health resources in West Philadelphia have not effectively served or substantially improved the health status of the Sayre Beacon community. A school-based, community health promotion and disease prevention center would bring to bear Penn's many health resources, as well as those of other local health resources together to improve the health of children and adults in the Sayre community. This action-oriented interdisciplinary research seminar will explore the issues surrounding the implementation and realization of the Sayre School-Based School and Community Health Promotion Center. Students will focus on an immediate and local problem in an effort to understand complex health issues. Emphasis will be placed on integrating community problem solving, theory, and practice to create a significant, informed research-based policy proposal that confronts immediate needs.

Appendix D: Learner-Centered Teaching Strategies

The goal of adding an LCL component to recitations is to make recitations more engaging for students and thereby a more productive learning experience. LCL can be effectively accomplished by adjusting the current recitation structure to include informal strategies involving both small-group and individual tasks. All of the following proposed classroom activities are sufficiently general so that they can be applied to any discipline and to classes of any level: varying from introduction level classes to advanced seminars.

Group Work

Think-Pair-Share

- In this strategy the TA would lead the discussion for a significant portion of the recitation and then pose a question or issue for discussion which the students would consider for several moments (the think phase). Students would then form small groups and discuss their ideas with their peers (the pair phase). Several pairs would then share their responses with the class (the share phase). This strategy is ideal because it balances the role of the TA with the role of the student. When the TA is lecturing, he has complete control of the classroom and there is no active participation by the students. In contrast, think-pair-share involves the student so that throughout the activity the student's participation ranges from 100% in the think phase to 50% in the pair phase and share phases.

- This strategy is mutually beneficial for the student and the TA. While the student is actively engaged and thus analyzing the material in a manner

that is highly beneficial for learning, the TA is receiving immediate feedback as to the comfort and comprehension level of the class in dealing with newly taught material.

Simulations

Meeting of the Minds Panel/Mock Trial

- There are fun strategies which allow the students to truly become immersed in the classroom material. To implement these strategies, students portray the part of a different famous personality in a panel discussion or assume the role of witness or lawyer in a trial setting. This allows students to understand that particular personality better, as well as the interaction between all the personalities during that period. Students will not only learn the facts of the situation they are role playing, but they will use this information to make inferences as to how the personality would likely respond to the current situation.

Fishbowl

- To implement this strategy, several students sit in a "hot spot" at the front of the room and field questions which have been prepared by the rest of the students in the recitation. These other students then constructively critique the performance of the hot spot students. A great way to incorporate this strategy is to create a "press-conference" setting where the hot spot students assume the role of the focal personalities (e.g., a scholar, a leader of some sort, a representative of a particular position or a school of thought) and the other students become reporters, members of opposing interest groups, residents of another country or colleagues of the focal personality who would thus question the star personalities. This strategy motivates all students to prepare for recitation as each student has a unique and assigned role in the structure of the recitation. Hot spot students know they will be questioned individually, and the students on the periphery of the discussion understand their role as questioners and thus must prepare questions in advance of the recitation.

Structured Academic Controversy/Debate

- In this strategy, students attain an understanding of the best arguments of all sides of an issue. This strategy also energizes any topic and is an excellent way to connect issues to topics of contemporary debate. In a structured controversy, students working in small groups prepare, present and defend a particular point of view. This is an excellent method of incorporating oratory skills into a recitation section, even if it is not a designated CWIC section. Not all of the LCL models we propose involve group work. The following are strategies that can be implemented in a recitation in which students work alone and allow the TA to monitor the progress of individual students.

Individual Assessments

"Quick-Thinks"

- These are very short strategies which force the students to quickly respond to a question posed by the TA. They work well at either the beginning or end of the recitation so as to identify what the students did and did not understand from the lecture material.

- Reorder the steps: students order a set of randomly sequenced events
- Paraphrase the idea: students are asked to explain an idea or a quote in their own words
- Support a statement: students must support a statement using a variety of sources ranging from class lecture notes to prepared reading texts

One-Minute Paper

- The one-minute paper involves having students answer a question in writing during either the first minutes or the last minutes of class. Sample questions could be, "What was the most interesting concept you learned from the readings?" or "What is the one idea that you will walk away from class having learned?" This exercise aids the student to summarize what was covered in recitation and allows the TA to see whether the students not only understood, but enjoyed the material. It is an excellent warm-up or cool-down exercise.

While this list is by no means exhaustive, it does present several strategies for adding LCL components to any classroom environment. In compiling this list, the following sources were consulted:

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