

*To Members of the University Community,*

For the past 50 years the Student Committee on Undergraduate Education has been a driving force for reform at Penn. Founded at a time when undergraduate students were given little say in their own education, SCUE was the first organization to challenge this notion and blazed a trail for countless other student groups to bring about change. From the beginning, SCUE White Papers have provided a vision for advancing undergraduate education. Now, on the semi-centennial of our founding, we look back at our accomplishments and are proud of how far the University has come.

Despite many great successes, the work for reform is never complete. In SCUE's first White Paper, published in 1966, our founders put forth two calls to action. One was to the faculty and administration; the other was to the students. To faculty and administrators, we called for the opening of a dialogue. We recognized that improving undergraduate education at Penn requires constant feedback between students, faculty, and administrators. To the students, we called for individual responsibility. With the freedom to change one's education, comes the responsibility to meaningfully engage. We believed then, as we believe now, that all students have the power to make a difference if they are willing to take charge of their education. These are the principles that have guided our work over the last 50 years, and they remain at the heart of this report.

To the faculty and administration, we commend your many efforts over the years to seek out feedback from students. As you explore the following recommendations, we ask that you view each not as a solution to our problems, but as an opportunity to further our ongoing dialogue on the most important issues of the day. We hope our vision for reform inspires others to challenge the status quo, and reminds us that no matter how far we come, there is always more work to be done.

To our fellow students, we commend your constant passion to produce tangible change in the undergraduate experience. The last 50 years has seen a level of student engagement the SCUE founders could never have imagined. As you read these pages, we ask that you think critically about the recommendations presented here, and work with us to produce long-lasting solutions to the issues you care about most.

Finally, I would like to thank all who have contributed to this report. Thank you to the faculty and administrators who listened to our ideas and provided helpful feedback as we developed our proposals. Thank you to Rob Nelson, our advisor in the Provost Office, for invaluable guidance and support during this process. Thank you to all the students who helped inspire many of these recommendations. And finally, thank you to the SCUE members, both past and present, for all you have done to make this report possible.

I am proud to present the 2015 SCUE White Paper on Undergraduate Education. We look forward to working with you to better undergraduate education at Penn.

—Lucas Siegmund, 2014 SCUE Chair

*Below are excerpts from the report. See the complete White Paper at <http://www.scue.org/white-paper-2015/>*

## The White Paper on Undergraduate Education 2015

### Chapter I: One University

"One University" means one Penn. Although there are four undergraduate schools, there is one graduating class. The goal of the One University concept is to provide a unifying undergraduate experience that allows students to find common ground. Often, students are siloed into their individual academic programs, which spill over into other aspects of their lives.

As with their diverse experience before Penn, students' paths at Penn diverge based on school. Many efforts have been made to create a unifying experience, including the writing seminar, Theme Year, and New Student Orientation. However, these efforts have fallen short of creating a meaningful and long-lasting sense of oneness. Additionally, each school has a unique set of resources. The disparity between the services offered creates a sense of stratification amongst the student body. This is perpetuated by a lack of information regarding which of these resources are available to all students.

#### Course Requirements

##### Status Quo

Currently, the requirements and the courses that satisfy them differ between the four schools. For example, the Nursing School has six liberal arts requirements and Wharton and Engineering each have eight. In each of these schools, students can use credit earned before arriving at Penn to satisfy a majority of their liberal arts requirements. In the School of Arts & Sciences (SAS), however, students face a 13-course liberal arts curriculum—none of which can be satisfied using AP, IB, A-Level, or any other pre-college credit.

##### Problem: Non-Uniform Grading Across Schools

Segmentation sends mixed messages to the student body. Each student belongs to a specific school that has its unique offerings of curricula, majors, and potential career paths. However, all students are also required to take classes in the College that may seem irrelevant to the objectives of their courses of study. These requirements, in the context of the high degree of specialization required of each school, may seem counterintuitive. Furthermore, because students from different schools have varying policies regarding the fulfillment of certain requirements (i.e. pass/fail versus for grade), there is a sense that some schools value the general require-

ments more than others. This leads to disunity amongst students on campus and within the classroom. Some classes, such as language courses and the writing seminar, depend on strong classroom communities. If some students can take these courses pass/fail, they may perceive the course as a less important piece of their education and may not take the course as seriously as others who are required to take the course for a grade.

##### Recommendation

Offering students in all four undergraduate schools the opportunity to take a small number, say one or two, of their general requirements pass/fail could have positive outcomes on the overall Penn experience. SCUE does not recommend that pass/fail courses could be applied to any course in a student's major that happen to also fulfill a general requirement. The pass/fail option would encourage underclassmen to use the general requirements to explore and discover different departments at Penn. While some students come to Penn thinking they know what they want to study, most find that a discipline they had not previously considered appeals to their interests. Students may decide to pursue a major, a minor, or simply other electives that broaden their outlook as they continue at Penn and beyond. This would be particularly valuable for students pursuing a subject in which they have not previously completed coursework.

##### Problem: Non-Uniform Variety and Definition of the Requirements

The root of this issue lies in the definitions of the requirements. There is certainly no shortage of course offerings in science and math, but these fields are severely underrepresented when it comes to the liberal arts curricula. Reconsidering which courses can satisfy certain requirements can enrich students' experiences. As it stands, students tend to congregate toward specific classes in areas outside their comfort zones because students are unsure of their abilities to perform in classes whose methods differ from those in their fields of expertise. This leads to overpopulation of students from certain backgrounds in some classes and underpopulation in others.

##### Recommendation

One of the issues associated with satisfying broad requirements is that students often feel unable to understand the methods and techniques of a foreign discipline. In Penn's efforts to offer interdisciplinary courses, professors should think about how to make their fields more accessible to students who may consider them out of their element. For example, an

English major may want to study the history of scientific theories on the origins of the universe. Additionally, students often take course requirements without understanding how they relate to the greater picture of their education. Encouraging professors to weave how their general education courses relate to other disciplines may give students greater context for applying their knowledge outside the course.

SCUE recommends the course offerings for the science sector requirements be expanded and include classes targeted at non-majors. For those who believe it is important for science sector requirements to maintain the same discipline-specific structure as the common introductory courses, an option would be to offer courses that teach with similar methods, but focus on specific topics that are more salient throughout the general population. This has the added benefit of not putting students with an aptitude for science up against those without that skillset, since the science majors will have to take the general introduction course to continue with the major. One example of such a course is ENV5 204: Global Climate Change, as it compares to ENV5 200: Introduction to Environmental Science. Both of these courses fulfill the Living World sector, however ENV5 204 is more relatable to non-majors because it focuses on a topic that most students find relevant. Students in both courses get a basic understanding of the methods in the discipline of environmental science, but those in ENV5 204 are able to do so while studying content they are more likely to find accessible and engaging. This model should be replicated in other science departments.

## **New Student Orientation (NSO)**

### **Status Quo**

The main goal of NSO, stated in the *1999 SCUE/UA Joint Proposal on NSO*, is to “help students gain a better perspective—academically, socially, functionally, and culturally—of Penn as an educational institution and the city in which we all live.” This is a mindset that should be continued all four years: helping students feel integrated with their school and familiar with the vast resources available to them on-campus and in Philadelphia. Understanding that NSO is only one part of the larger Penn “orientation” experience is a productive framework for improving it.

### **Problem: Information Overload**

Over the course of NSO, new students are bombarded with a large quantity of information that is often overwhelming. As a result, students may feel as though they can never absorb all that is thrown at them, and therefore there is a low retention rate for much of this essential information. Additionally, processing a large amount of information while transitioning to a new living and social environment can cause stress. All of these factors counter the goal of providing new students with important information about Penn that they can utilize throughout their four years.

### **Recommendation**

SCUE supports utilizing the period before students arrive on campus and NSO begins to lessen the information overload during NSO. The University is currently developing online modules on various topics. The online alcohol module is a good model for these kinds of educational tools. Current modules in the works include content focused on:

- Sexual Assault
- Drugs and Alcohol
- Academic Integrity
- Mental Wellness
- Campus Resources

In creating these modules, SCUE recommends that the University tap into student resources. Content for these modules can be made through on-campus groups with the help of related student groups and centers such as CAPS, PWC, Active Minds, One in Four, etc. NSO grants or competitions could be helpful in incentivizing groups to contribute content. In order to maximize the success of these modules, the NSO office can conduct surveys and focus groups with current undergraduates to collect feedback.

This material should be available to all Penn students online, year round. These modules can then continue to serve as resources throughout the year, containing links and contact information for various groups, pages with information about what to do in certain situations, mandatory follow-up quizzes and NSO surveys to get feedback after the events. Upperclassmen, too, can be encouraged to complete the modules. By presenting information on these essential topics online, the University can decrease the amount of information that needs to be disseminated over NSO. This would free up more time for students to attend optional events and explore the surrounding communities. Allowing students to work through mod-

ules on their own will also increase retention and allow students to access important resources in real time through links.

### **Problem: Decentralization of Information**

Currently, information communicated to students during NSO is highly decentralized and scattered between each school and program, the admissions office, the NSO office, VPUL, SHS, and SFS, and other sources of communication. The abundance and segmentation of information shared at various school-specific information sessions and interest meetings makes it difficult for students to retain all that they hear. Students are often unable to attend all sessions that spark their interests and have trouble referring back to the information reviewed in these sessions when NSO has ended.

### **Recommendation**

SCUE proposes that a website be developed as a centralized resource for students in their early days at Penn. Important information communicated to students prior to matriculation and during NSO programming would be found on the website, making it easier for students to attain and retain the information they need to succeed at Penn. This would also allow students to extend their educational experiences beyond the week of NSO. They would be able to refer to the website later in the year, as they get better acquainted with the University. This centralized resource would be available to all students, regardless of their undergraduate schools, contributing to the notion that Penn is truly “One University”.

### **Suggestions for Website Content:**

- Activities/events calendar and mobile application for NSO (similar to Quaker Days)
- Summer deadlines and due dates calendar (including SHS, SFS, Dining Plan, Placement Exams, modules)
- Course Selection process (how to use Penn InTouch, how to register for classes, links to Penn Course Review)
- Core Course Requirements for each undergraduate school
- Online Chat application with Advising Staff
- Details about Move-In

The site would be Penn log-in only and open to all Penn students.

## **Penn Reading Project/Theme Year**

### **Status Quo**

The Penn Reading Project and Theme Year are closely tied and both play a crucial role in acclimating freshmen to the Penn experience, as well as bringing together members of the Penn community through a common academic focus. All incoming freshmen are assigned to read a book over the summer intended to introduce them to the Theme Year topic and prepare them for a discussion about the book during NSO. Freshmen must also complete a writing diagnostic on the subject of the book during NSO, which is used as a measure of the students’ writing abilities at the beginning of the year and utilized in writing seminar classes.

### **Problem: Lack of Applicability**

Although the Penn Reading Project and Theme Year share a common goal to unite the student body over academic conversation, both have shortcomings which make it difficult for upperclassmen and other members of the Penn community to engage. Freshmen who are aware that reading the assigned book and writing the diagnostic for Penn Reading Project have no effect on their grades sometimes feel no incentive to participate and may put off reading the book or participating in the discussion. Lack of incentive is an issue that affects Theme Year as well, as members of the community may not always feel the need to participate. Using the Penn Reading Project book as a basis for the writing seminar diagnostic also makes the diagnostic difficult to utilize later on when students write their midterm portfolios. There are often very few similarities between the final writing portfolio paper and the writing diagnostic, and the diagnostic can be an inaccurate reflection of current skill.

### **Problem: Awareness**

Furthermore, Penn Reading Project and Theme Year currently struggle with the lack of awareness on campus, especially among non-freshmen. Most upperclassmen and graduate students are completely unaware of the assigned book for the Penn Reading Project, and so PRP is not applicable to a majority of the Penn population after freshman year. At the same time, the many events, grants, and other opportunities presented by Theme Year could be better utilized by raising awareness among upperclassmen.

### **Recommendation: Preceptorials**

Preceptorials could be used to raise awareness of the Theme Year among upperclassmen. Preceptorials are offered during NSO and are an

opportunity for freshmen to explore different academic and extracurricular interests. Traditionally, preceptorials have been very successful and popular every year. They could serve as an alternative way to engage students with theme year from the current theme year grant system. Additionally, preceptorials are usually very popular, and so having a greater number of Theme Year aspects incorporated into preceptorials would allow for more publicity of the Theme Year.

#### **Recommendation: Including PRP in Pre-Freshmen Modules**

Penn currently offers pre-freshman modules to incoming students over the summer that provide training and serve as tutorials on things such as drug and alcohol abuse. See “NSO” in this chapter, above for more information. Penn Reading Project could also be incorporated into these pre-freshmen modules so as to engage students to think critically about the book before they get to Penn and have discussions during NSO. This could include creating things such as: a small course in an applicable subject that students could access online, a discussion forum that would be monitored by faculty, a series of questions that could help stimulate critical thinking about certain aspects of the book, and even the essay prompt in advance so that students are prepared.

### **Academic Integrity**

#### **Status Quo**

Penn’s system of academic integrity is run by the administration, with student input through the University Honor Council (UHC). Professors are not required to report cases to the Office of Student Conduct (OSC), and can instead institute sanctions themselves. Their sanctions sometimes include penalizing a student’s grade, which goes against university policy. Faculty members often choose not to report cases to OSC because they believe that OSC does not properly handle cases of academic misconduct. For those cases that are reported, a student is given the opportunity to admit guilt. In this case, the student is allowed to decide on a suitable sanction with the OSC staff, ending the case. This is a common procedure for small violations. If a student denies the infraction, the case goes to a hearing where the panel assigns sanctions to the student. Possible sanctions include probation, suspension, disciplinary withdrawal, expulsion, delayed diploma, transcript notation, and many more.

#### **Recommendation: Better Education of Both Students and Faculty**

Professors who choose to handle Academic Integrity infractions on their own should have access to OSC resources for guidance. These could consist of workshops, reference materials, and advising. As previously discussed (*See NSO*), the orientation of students to the Penn community continues far beyond information sessions during their first few days on campus. In order to continually educate students on issues of academic integrity, online modules could be instituted during benchmark phases for Penn students. For example, modules could be required for students to complete before their final exams of their first semester on campus and periodically throughout their Penn careers. In particular, students should be better educated on the issue of plagiarism because it is one of the most common violations students make with regard to academic integrity.

#### **Recommendation: Change the Reporting System**

The biggest challenge the academic integrity reporting system faces is that faculty are not willing to turn over cases to OSC. This is typically because they are concerned OSC will not properly handle the situation. This is a consequence of both poor communication between OSC and the Penn faculty, and the general culture of faculty independence fostered at Penn. The current system is problematic because it creates the appearance of an arbitrary approach to handling cheating at Penn.

A reporting system for academic integrity violations at Penn is important for two reasons. First, it allows the University to keep track of repeat offenders. Faculty, OSC, and students agree that repeat violators of the Code should receive a more severe punishment than first-time offenders. Even those faculty who choose not to report cases to OSC generally still support the notion that repeat violators should have to face the consequences of their actions. With such uneven reporting of cases to OSC, there is virtually no way to keep track of all the repeat offenders at Penn. Therefore, every time a new case comes to a faculty member or OSC, they are forced to treat it as a first offense even if they suspect there were previous instances of cheating. To resolve this issue, faculty should be required to report all academic integrity cases to OSC.

The second issue with the lack of a reporting system is that it leads to uneven consequences for students who cheat and denies students the right

to an open and honest hearing process. If a student receives a punishment for an Academic Integrity violation that is not reported through OSC, he or she should have the option to appeal the case to an independent arbiter, such as the Department Chair, the Dean’s office, or the Office of Student Conduct. This ensures that students are not subject to any biased treatment, and establishes a system of due process.

In a simple world, all faculty would turn over all academic integrity cases to OSC. However, SCUE recognizes the immense investment faculty have in the students they teach. It is important to many faculty that they have the opportunity to address the issue one-on-one with their students. Therefore, SCUE recommends a model similar to that of Syracuse University. In this model, faculty members are required to report all cases of academic integrity misconduct to a centralized location, such as the Dean’s office or OSC, but retain the option to determine sanctions for all first time offenders. If records indicate the student is a repeat offender the faculty member will be immediately notified, and the case will be turned over to OSC. This ensures a recording system is maintained to track repeat offenders while still providing invested faculty with the opportunity to educate first time offenders as they see fit. A final component to this system is that in the case of first time offenders, any student who believes he or she has been unjustly sanctioned by a faculty member is allowed to appeal the sanction. In this instance, the case would be turned over to OSC for a third party analysis.

#### **Recommendation: Collect Better Data**

Potentially the most important recommendation SCUE can make on this subject is to encourage the Provost’s office to collect better data on the issue of academic integrity. There is currently insufficient knowledge on how both students and faculty view the subject. The recommendations listed here are based on qualitative research and anecdotal evidence, but in order to address this issue with greater confidence, quantitative surveys must be conducted of both students and faculty.

#### **Recommendation: Reduce Opportunity to Cheat**

The most direct way to improve academic integrity at Penn is to reduce students’ opportunities to cheat. This can be accomplished by setting clear expectations. Students are often confronted with ethical dilemmas when they are assigned problem sets or take home tests but are instructed not to work with fellow students. This leaves students who work on their own at a disadvantage. Often policies such as “no collaboration” or “no outside reference materials” for take home assignments are not enforced. If professors are serious about students working on their own, they should reevaluate the methods and objectives for their assignments or institute more effective enforcement so as to level the playing field.

## **Chapter II: Finding a Place at Penn**

Finding a place at Penn encompasses all aspects of a Penn student’s life. This includes residential communities, social groups, and involvement on campus. With the vast array of opportunities within each of these areas, there are infinite combinations for any individual student. While the breadth of possibilities enables exploration and individuality, many students struggle to find their own niche. This chapter will discuss how students cultivate lifestyles that allow them to feel fulfilled and passionate about what they are pursuing at Penn. Something that SCUE believes to be important is fostering intellectual curiosity and valuing the educational journey in addition to the end result. Oftentimes the most difficult thing to find is the support to follow a unique path.

Penn is made up of four undergraduate schools, each with its own protocol, network, and culture. This leads to decentralization, and a lack of communication between schools. As a result, students are not necessarily aware of many of the opportunities that may be good fits for them. These information gaps can encourage people to take the roads most traveled, which in turn create archetypal Penn students. The standards that come with these stereotypes are often unrealistic and detrimental to students’ abilities to pursue their goals and find happiness.

### **Integrating Knowledge**

#### **Status Quo**

Penn has a number of structured academic opportunities to integrate knowledge. First, the University houses several dual degree programs. These programs allow students to attain degrees in two different undergraduate schools. There are also uncoordinated dual degrees, which provide an opportunity for students to study disciplines across schools independent of these programs. Furthermore, students within schools have the



opportunity to integrate knowledge. Interdisciplinary majors and minors allow students to incorporate various fields within their courses of study. Additionally, students within schools may choose to double major in order to create overlap among topics.

A number of other resources at Penn encourage interdisciplinary study. Cross-listed classes allow students to identify areas of confluence between certain disciplines and fields. Cross Currents is a program designed to create an intersection across undergraduate schools. It attempts to encourage professors who teach in different schools to collaborate on an interdisciplinary course. Additionally, Theme Year, and the Penn Reading Project also provide opportunities for integrating knowledge.

### Problems

At Penn, integrating knowledge can sometimes be conflated as the simultaneous study of different disciplines. From a student perspective, oftentimes the most powerful kind of integration is studying how different disciplines enhance the understanding of others. Students find that while coordinated programs and interdisciplinary majors provide varied coursework, they do not always provide meaningful connections. Conversely, some programs force an integration between different fields, thus obscuring the natural flow of ideas between them. Furthermore, while integrating knowledge is a part of the Penn experience that should pertain to all students, those outside of interdisciplinary programming may feel a lack of opportunities to integrate knowledge within singular majors.

Inaccessibility not only applies to students, but also professors. Cross Currents, which seeks to help professors co-teach courses across schools, requires a high barrier to entry on behalf of the faculty. Professors must dedicate extensive time and energy to creating new courses. Additionally, there is little incentive provided by Penn's administration for faculty members to co-teach interdisciplinary courses. In some ways, they are even disincentivized. For example, professors are not awarded full teaching credits for a co-taught class. While there are necessary logistical reasons behind this policy, faculty members are reluctant to invest a significant amount of time creating new classes when the positive incentives are not immediately clear.

### Recommendation: Interdisciplinary Seminar

SCUE recommends establishing an interdisciplinary seminar option for students in their junior year. These classes would help all students, regardless of their academic pursuits, to reflect on their education and determine how they want to finish out their senior year. Every discipline has the ability to affect the understanding of others. This seminar could help students conceptualize creative applications of their interests and expertise. It could offer inspiration to students planning their senior theses and to those trying to find other ways to meaningfully conclude their time as Penn undergraduates.

### Recommendation: Faculty and Student Collaboration— Object Based Learning

Collaboration among disciplines is often more difficult to facilitate in the humanities and social sciences than it is in the natural sciences. In natural science fields different lab groups often work together on components of specific projects. Science labs at Penn are often located in close proximity to one another. Laboratories in a variety of fields share equipment and conference room space. Mere proximity promotes the likelihood of productive collaboration. Within the humanities community, there is less incentive to collaborate and collaboration may therefore seem less accessible. First-authored publications are favored over collaborative publications. Research is usually a solitary venture in the humanities, whereas in the sciences, lab groups consist of a range of faculty, graduates, and undergraduates. Each humanities department has their own physical space separate from other disciplines, which limits chance interactions.

Penn currently has many resources that can be better utilized to foster relationships among faculty and students in the humanities. Two examples include the Kislak Center of Special Collections in Van Pelt Library and the Penn Museum. Both of these centers house a number of resources that can be used for object-based learning approaches. Object-based learning offers the opportunity to bring perspectives from a number of fields to the interpretation or study of a particular object. By incorporating these collections into courses across departments, faculty are more likely to interact with faculty members outside their department.

### Recommendation: Incentivizing Interdisciplinary Teaching

Faculty members are ultimately incentivized to do research at Penn,

rather than focusing on creating curricula. While this is the nature of an elite research institution, more can be done in order to lower the barrier of course creation and to encourage a greater focus on faculty collaboration in the classroom.

The University of Chicago has taken steps to incentivize co-taught classes. The Faculty Fellowship Program at Franke Institute for the Humanities at the University of Chicago provides faculty members with funding and a semester-long incubator for interdisciplinary curriculum creation and research projects. This kind of administrative support gives faculty the resources to create unique interdisciplinary courses. Once the incubation period is over, courses created by these faculty become readily accessible to students. This model could be used to rectify the above problems that have arisen in Cross Currents at Penn.

Alternatively, Penn could consider altering the credit structure for co-taught courses in their first semester. Course creation requires a large investment of time and effort which should be recognized by providing co-teaching faculty members with a full teaching credit for the first semester of a co-taught course. After that, however, course materials often do not significantly change, making a co-taught class less burdensome for faculty after the initial run. At this point, co-taught classes may be reverted to half teaching credits. This alteration could lower the barrier to entry of creating new courses under Cross Currents while maintaining the overall structure of teaching credit.

### Alternative Paths at Penn

#### Status Quo: Career Services

Career Services is a useful resource at Penn. Students use the Career Services website for guidance on writing cover letters and resumes, as well as for career exploration. The counselors are also available for appointments, and offer one-on-one help throughout the job search process. Career Services manages commonly used job-finding and networking resources, such as PennLink and the (On-Campus Recruiting) OCR listservs. Currently, there is a wide variety of information and resources for a multitude of fields.

#### Problem

Career Services offers explicit channels into specific industries, which are clear and well communicated to the undergraduate student body. These industries provide numerous easily accessible opportunities at prestigious companies. Other industries, however, are underrepresented or decentralized at Penn. While various communities on campus exist to help students learn about some of these lesser-known fields, students often do not know about these independent hubs and the opportunities that they offer. The path towards these jobs is often much less clear. The nature of On-Campus Recruiting is such that it attracts firms who have steady turnover and can predict their hiring up to a year in advance. Thus, some of the lesser-known industries cannot participate, due to a different recruitment process. However, these firms are often only represented at Penn through Career Fairs, which are overwhelming, disorienting, and often less-than-informative. The resources that institutional firms pour into information sessions and on-campus interview opportunities exacerbates the impression that they are the best post-grad option for all students, leaving students feeling pressured to go into a limited number of industries. Career Services has many resources for non-institutional careers, but most students only hear about careers and resources in institutional industries because of their well-established recruitment presence on campus.

#### Recommendation

Career Services offers many guides and workshops to help students navigate the job-finding process. Many of their resources, however, are difficult to find or use. Therefore, SCUE suggests a re-organization of Career Services' website in order to help publicize its resources and make them more accessible to students. Career Services should synthesize the abundance of information into easily digestible step-by-step how-tos, tips and workshops, and publicizing all of these so that they are as accessible to students as possible.

Moreover, Career Services should have a better platform for publicizing underrepresented industries on campus. Career Services send out a tremendous amount of information to students; much of it focuses on OCR. While this is not exclusively the case, many students feel that on campus opportunities are far less accessible in other fields. Some of the underrepresented industries promote job opportunities through departments or centers such as Fox Leadership and the Kelly Writers House.

Career Services hosts a number of these companies in job fairs, as well. Encouraging more diverse companies to work through Career Services in addition to the independent organizations they might already visit would make them more accessible to the student body.

Finally, rebranding “On Campus Recruiting” would go a long way to changing the culture of finance and consulting pre-professionalism. There are many organizations across a wide range of industries that recruit on campus, but do not participate in “On Campus Recruiting”. Renaming “On Campus Recruiting” to something more appropriate, that emphasizes the business focus of the organizations that participate, could change the impression that the only on campus recruiting at Penn is in these industries.

#### **Status Quo: Gap Year**

Gap year is a term typically used to describe the period between high school graduation and the start of freshmen year. In this section we will broaden that understanding to also include any period in which a student takes a leave of absence during his or her undergraduate enrollment at Penn. We do this to indicate a need to change the culture around the current assumptions associated with a “leave of absence”. By referring to this experience as a gap year, we allude to all the positive opportunities associated with taking time away from the university during one’s college career.

#### **Problems**

It is important for Penn to keep track of the types of endeavors students are pursuing during their time away from Penn. This will ensure students are using the time away beneficially and will provide guidance for future students interested in taking a gap year. The University does not currently compile data on student activities during time off. In contrast, Career Services keeps detailed data on what students do after Penn and in their summer internships. Also, Penn students are driven and can be afraid to veer off course. They may be hesitant, therefore, to take time off during their Penn careers.

#### **Recommendation: Creating a Database About Gap Years**

In order to track what Penn students do in their time away from Penn, the University should create a database that houses this information. Similarly to the Career Services Summer Survey, a simple survey could be circulated to all students taking gap years at the end of their time away. This information should be housed on a central publicly accessible website. SCUE suggests Career Services keep track of this information, since they already have the infrastructure. In addition, students willing to serve as peer advisors to prospective gap year students should provide their contact information. This would serve as both an informational guide and support network for students considering a gap year. Information regarding steps to take when pursuing a gap year, compiled by students who have done so, could be housed in the same location.

#### **Recommendation: Advising**

Students who have taken gap years should have a forum to speak about their experiences and publicize the wider benefits of taking a gap year for a number of reasons. Candid student communication about taking time away from Penn for personal reasons could reduce stigma of taking a less traditional path. Students who feel the need to leave Penn for any reason could gain reassurance from students who have successfully done so. This type of communication can be facilitated by panel discussions, online forums, coffee chats, and information pamphlets supplied to academic advisors.

#### **Academic Advising**

##### **Problem: Information Gaps in Advising**

There is currently an information gap within the advising offices surrounding policies and classes. For example, there seems to be some inconsistency among the answers different advisors give regarding questions about class credit, study abroad, and course selection. Sometimes the process can appear impersonal, which causes students to feel lost in planning their academic paths. Having strong advisor-student relationships can increase a students’ overall quality of experience at Penn.

##### **Recommendation**

There are a number of actions the Advising Offices can take to improve how the advising process helps students find their places at Penn. First, the offices can make sure that students know they have the option to switch advisors if they do not relate well to their initial advisor assignments. This process is very simple, involves minimal red tape, and could make the advising process much more helpful for a large number of students. Yet

few students know that this is an option, so originally assigned advisors should inform their students of this option. Additional means of publicizing include an all-school email before advanced registration for the spring semester, or a question on the Freshmen Questionnaire asking students if they would like to change advisors after their first semester of advising. Once this information is circulated throughout the student body, students will continue to spread it through word-of-mouth. Hopefully, this will change the culture around advising, helping students feel more comfortable changing advisors to ensure they are receiving the support they need.

Current students can provide valuable knowledge and advice to incoming students regarding course selection. Much of the most helpful information can be student-sourced. Advising should leverage student representatives from various on-campus groups to provide resources for advisors. A panel of student advisors selected by the Advising Office of each school should create a checklist of information for advisors to share information with pre-freshmen that they wish had been shared with them as incoming freshmen. Items on this checklist may include raising awareness about Freshmen Seminars, ABCS courses and other opportunities of which freshmen may not be aware.

### **Chapter III: Penn in the Information Age**

Students in the Information Age have expedient access to research through technology. They also have resources to connect with the global community. In 2015, Penn embraces the benefits that come with educating in the Information Age. Technology, improved educational models, and an emphasis on maintaining a well-rounded academic environment continue to shape Penn’s intellectual culture. In order to provide Penn students with the tools necessary to succeed in today’s workplace, undergraduate education must both prepare students for the demands of the global workplace and expose students to tools that will allow them to think innovatively and work on the cutting edge of their chosen field.

Penn remains a forward thinking institution in the Information Age. Several departments have restructured their curricula in order to incorporate active learning/teaching methods. These courses are constantly being rethought and revised, and efforts are being made to expand active learning course offerings.

#### **Status Quo**

The vast majority of introductory classes in STEM (science, technology, engineering and math) majors use the lecture/recitation format. Students attend lecture two or three times each week in addition to a recitation session led by a TA. Many STEM departments have introduced a solution called SAIL—Structured, Active, In-Class Learning. The SAIL teaching model relies on independent, active learning experiences. The flipped classroom model is a prominent example of SAIL courses.

#### **Problem: Barrier to Entry of Introductory Classes**

There is a tendency at Penn for many students to switch out of STEM majors after they complete some introductory STEM courses. The number of incoming Engineers, Pre-med students and intended science and math majors is much higher than the number who finally graduate with a degree in one of these fields. Part of this trend can be explained by the fact that many students realize they truly do not have the aptitude for the discipline or decide they are interested in exploring another field. In these cases the introductory courses served the students well. In other cases, however, students are driven away from STEM majors due to the current structure of introductory STEM courses.

#### **Recommendation**

Changes in class structure can alleviate many of the issues described above. The first method that has already been implemented in a number of courses is the SAIL model. SCUE believes these types of courses can help students better grasp materials and feel more comfortable taking courses alongside students with varying levels of prior knowledge. SCUE finds the flipped classroom teaching model to be a particularly effective type of SAIL course.

One of the most effective ways to better engage students in the classroom is by reducing the class size. Small classes provide students with a higher level of support and hands-on instruction to help students excel in these challenging introductory STEM courses. Ideally, every introductory STEM course would be a seminar style course with a heavy focus on collaborative learning. However, SCUE recognizes that resources are limited and it may not be possible to offer small seminars for all introductory STEM courses. In that case, the next best thing is to adapt more introduc-

tory courses to the SAIL models to give students a similar level of hands-on instruction and engagement that they would receive in a small seminar.

**Problem: Lack of Connection Between STEM and Careers**

Penn students should be well-rounded in their educations. This means that students in all fields should be exposed to how STEM, and technology in particular, relates to their given profession. Currently, however, the widespread applicability of STEM fields is not stressed enough.

**Recommendation**

SCUE recommends that teachers more clearly outline the relevance of STEM courses to a number of fields or skills. This would help students better understand how they can use what they learn in their STEM classes during their time at Penn and beyond. In the 21st century, technology is emerging as a fundamental aspect of nearly every industry. SCUE recommends that departments aim to make the applicability of STEM courses more explicit, especially by educating students about the role that technology will play in their post-graduate careers.

**Innovative Teaching Models**

**Status Quo**

There has been an increasing awareness about teaching models that deviate from the traditional lecture-evaluation format. Many professors at Penn are currently exploring new opportunities to engage students more actively in the classroom. The university has termed these experimental innovative teaching models Structured Active In-Class Learning (SAIL).

The Center for Teaching and Learning (CTL) is the current organization on campus that monitors professor and teaching assistant quality and develops methods to improve it, especially in the case of innovative teaching models. The Center for Teaching and Learning is a Penn initiative to help instructors enhance their teaching skills and improve the culture of teaching at the university, thus increasing the quality of a Penn education.

**Problem: Ineffective Use of “Flipped” Classrooms**

Flipped classroom is quickly gaining popularity on campus, but has yet to be effectively implemented in a consistent way. One problem with flipped classroom as it is currently executed is that lectures assigned for students to watch independently are long (40 minutes or more).

**Recommendation**

Studies have shown that shorter, more concise lectures are more effective at engaging students, especially when viewed on their own time. This principle is at the core of popular educational organizations such as Coursera and Khan Academy. Offering several short lectures, less than fifteen minutes each, encompassing the material included in a traditional lecture will allow students to delve deeply into one concept at a time and fully understand that concept before moving on to the next topic. Additionally, this offers an opportunity for professors to distill their lectures down to the most important material, and supplement with other resources such as readings, videos, articles, etc.

**Problem: Slow Adoption of New Teaching Models**

As technology develops and new teaching models are tested, the knowledge behind best practices in teaching at the university level increases. Since professors are experts in their field of study, and not in the practice of teaching students, it often takes time to learn about and adopt new methods of teaching. Currently there is no form of continuing education for professors, as there is in other fields, to keep them up to date on the best teaching methods. There is no systematic way for faculty to learn from the research conducted by experts on higher education to ensure every faculty member is prepared to provide students with the best education possible.

**Recommendation**

In order to better prepare faculty to teach undergraduates, SCUE recommends the university make development programming available to all faculty. Currently there are a handful of such workshops and seminars hosted by groups like CTL and the Netter Center. Many of these experiences are informal, such as lunchtime round tables where faculty can share their teaching experiences with one another. SCUE recommends that more formal events and workshops be held. These opportunities should be listed in a central location on CTL’s website, no matter who is hosting the event. Department chairs should encourage faculty to attend the innovative teaching workshops.

**Problem: High Cost to Develop Courses**

One of the greatest challenges to developing new innovative courses,

or adapting existing courses, is the extra time and energy it takes faculty to develop new curricula. CTL is working on addressing this issue by advising faculty on general pedagogical models that have proven successful in various courses. While these general services are certainly valuable and time-saving, CTL advisors are limited by their lack of specific knowledge in the subject matter, and will need assistance from someone who has mastery of the discipline. Two potential models for improving this process are outlined below.

**Recommendation**

The first approach SCUE recommends is that Penn issues grants to postdoctoral fellows, allowing them to come to Penn to do research in exchange for helping faculty members develop courses. Postdocs are valuable because they are often eager to develop their own understanding of innovative pedagogical methods, less expensive than standing faculty, and have a mastery of the subject material.

A second model for assisting faculty members in developing innovative courses is the use of lecturers, who have no research requirement and often have more flexible schedules. Lecturers often come to Penn because they are excited to teach young and bright students. They are often the most eager to experiment with new teaching models because their primary reason for being at Penn is to teach. SCUE believes that it is important for standing faculty to teach most courses at Penn to allow students to interact with experts in the field. However, the University can take advantage of the flexibility and teaching interest of lecturers and by allowing them to assist with the development of courses in coordination with standing faculty members. The lecturers could implement experimental teaching models. They could then plan to pass off the course to the standing faculty they have partnered with and move on to developing a new course. SCUE believes this model could be particularly effective for introductory courses.

**Problem: Inconsistent Evaluation Methods**

While many new teaching models have been developed, evaluation methods are often the same as in traditional courses. This creates inconsistency between the intellectual work done in class, and the way in which students are being evaluated.

**Recommendation**

In order to improve methods of evaluation in flipped classroom style courses, evaluation should mimic the style of work that is done in the class. The ideology behind SAIL courses places a high value in thought process and critical thinking. When faculty are creating the syllabus for any SAIL style course, they should focus on maintaining continuity and consistency between teaching and evaluation methods. For example, classes that are based around collaborative problem solving should include this type of work in their evaluations.

**Global Initiatives**

**Status Quo**

Penn offers various opportunities for global engagement, whether it is providing international internship opportunities, hosting speakers from foreign universities, or maintaining extensive alumni networks in multiple countries.

**Problem: Disparity in Opportunities Between Schools**

Although Penn has a strong infrastructure in place to facilitate global learning, there are still many areas that can be improved. Historically, students in different schools have had varying opportunities and participation rates in abroad programs. Students in the humanities and social sciences are more easily able to find programs that can be tailored towards their course of study, while Engineering and Nursing students have found less flexibility. This rigidity prevents many students from participating in global opportunities. Penn Abroad provides a wide variety of programs for semester or yearly study, but the number of increasingly popular short-term and credit bearing opportunities is lacking across the University. Successful programs, like the Wharton International Program, are often limited to students in their home school due to high demand.

**Recommendation**

Diversifying the opportunities available is an important consideration to allow a broader sector of the Penn undergraduate population to pursue off-campus global engagement. Many short-term experiences are open only to specific groups, but the demand is present from all students. Utilizing school vacations or closely integrating academic courses with global travel will attract students to pursue these intellectual opportunities.



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Underrepresented groups in study abroad, like Nursing and Engineering, would benefit from additions to the number of short-term opportunities. As short-term study abroad opportunities grow it is important for the university to expand access to these programs to ensure that all students, regardless of socioeconomic status or undergraduate school, have access to these incredibly valuable experiences.

## Holistic Education

### Status Quo

The University of Pennsylvania offers its students innumerable opportunities for intellectual growth and development, from the classroom to the laboratory to the streets of Philadelphia. But until now, Penn has focused almost exclusively on traditional classroom learning, and very little emphasis has been placed on health and wellness. Many of Penn's peer institutions across the nation offer undergraduate courses in physical education for credit.

### Problems

Currently, many Penn students struggle to structure their days to incorporate exercise regimens, healthy eating, and other wellness activities. Often, students view these activities as a waste of time that could be used for doing homework or participating in "more important" extracurriculars. Many Penn students have not been educated on the benefits of physical education, and the positive effects that it can have on mental and physical wellness. Penn is missing a critical component of the holistic education, as defined by 21st century knowledge of mind-body wellbeing. SCUE sees an inclusive wellness curriculum as a missing piece in the Penn education.

#### Recommendation: Within the Current Credit System

Based on the current credit system at Penn, in which all credit is "academic credit", the model we have found to incorporate wellness into the educational experience is physical education courses for credit. Below is SCUE's recommendation under this current system:

Many of our peer institutions have instituted half-credit courses that address the physical and mental health of its undergraduates in a time when unhealthy eating habits, minimal exercise, and insufficient sleep can become the norm. SCUE believes this model has potential to improve the mental and physical wellness of the general student population at Penn.

One criticism of university-supported healthy lifestyle initiatives is that as adults, students should take the initiative to be physically active on their own. Unfortunately, at an institution where students are very hard working and involved in a multitude of extracurriculars, it is often difficult to make the time for physical activity. A credited course could address this issue. This model is based off of physical education programs at some of our peer institutions, including Stanford, Columbia, and Cornell.

#### Recommendation: An Alternate Credit System

A key criticism of Penn offering course credit for physical education classes is that physical education should not receive the same certification as academic courses. SCUE recognizes this distinction, and wants to honor the integrity of a Penn degree. The idea at the core of our recommendation is to harness the power of Penn credit to create habits. SCUE envisions another kind of "credit" awarded through the University, one that does not count towards a degree the same way as courses do, but encourages personal growth in other areas.

The proposed "Alternative Credit System" would award Penn credit, which is different from course credit, to students for building other activities into their routines over the course of a semester. This system could award credit to students who build wellness activities like exercise and healthy eating classes, as well as other holistic education experiences such as music practice or community service. These alternative credits could have incentive structures built into the system to encourage attendance in a similar way that course credit does. Such incentives may include scholarships, summer stipends, priority housing selection, etc.

## Chapter IV: Outside the Classroom

Penn offers many avenues for engagement outside of the classroom. From research to civic engagement to residential communities, Penn aims to give students a comprehensive college experience. That being said, the countless opportunities at Penn lead to a decentralized structure, and consequently an information gap between students and the many institutions that exist to benefit them. Even with all of these opportunities, students are sometimes wary of venturing outside the so-called "Penn bubble".

## Civic Engagement

### Status Quo

There are currently three umbrella organizations on campus that provide opportunities for civic engagement: Civic House, the Netter Center, and the Fox Leadership Program.

Civic House is a unifying entity that serves to bring together community service groups and is represented by the Civic House Associations Coalition (CHAC). The Netter Center addresses community service with an academically centered service approach. The Center is best known for its role in implementing ABCS courses. The Fox Leadership Program's mission is to foster the growth of student leadership to provide for future success. As such, many of its programs encourage civic responsibility

### Problems

Problems regarding civic engagement are concentrated in two areas: the general organization and structure of civic engagement opportunities at Penn, and the structure of ABCS courses at Penn.

#### Recommendation: Improved Organization of Opportunities

##### *Centralized Civic Engagement Website*

To foster increased awareness concerning various civic engagement opportunities, Penn should develop a website hosted on the university server that can display all opportunities from the three major hubs as well as from any other university entities. This model of a centralized website has been successful at peer institutions, such as Columbia University and the University of Chicago. It is not necessary for Penn to centralize all civic engagement organizations on campus, as Columbia and Chicago have done, but rather it can keep its current structure and instead centralize the communication of these opportunities to the student body.

##### *Civic Engagement Symposium*

All civic engagement organizations should collectively host a symposium to share with interested students the many opportunities that exist at Penn. Currently such a symposium for civic engagement exists only during the period of New Student Orientation, when students are often too distracted to fully digest all their options. SCUE recommends Fox Leadership, Civic House, the Netter Center, and any other relevant groups host similar symposia at other times throughout the year. Smaller symposiums could be held throughout the semester with focuses on individual issues in the community, including nutrition and education.

#### Recommendation Improving ABCS

##### *Changing the Structure of ABCS Courses*

While this framework may not apply to every ABCS course, many of these courses could benefit from a full year of participation. Allowing students to delve into a subject for a year rather than a semester would create additional opportunities for students to develop a deep understanding of complex problems and also implement their ideas in a more effective fashion. This would require more advanced commitment from the student, but would also provide for a comprehensive and meaningful application of ABCS learning. This structure also would also have the potential to incorporate an abroad component during winter or spring break or over the summer.

## Residential Community

### Problems

Due to the nature of Penn students' busy schedules, it is often difficult to engage in further intellectual activity outside of the classroom. Residential programs serve as an opportunity for students, particularly freshmen, to learn more about a specific topic alongside their living community. However, incentives for participation are low and engagement fluctuates based on the program and the time of the semester.

#### Recommendation: Integration of Online Learning and Residential Programs

To create meaningful intellectual community within existing residential programs, SCUE recommends taking advantage of existing resources to build structure and purpose to these topics. Using the success of Coursera, members of a residential program can enroll in a short-term existing Coursera course together. For example, students in the Media and Communications residential program can explore a Cinema Studies course offered by another university. The RA or GA coordinating the residential program could foster discussion about the course and provide outlets for further student engagement. This would provide much needed structure to the current residential program format, and encourage intellectual community from

the moment students step on campus. As students phase out of on-campus living and move to off-campus residencies, they will have an understanding of the benefits that online learning can provide for continuing education and intellectual community beyond their academic experience at Penn.

## Research

### Status Quo

Penn is at the forefront of many fields of research and has the resources to involve undergraduates in these pursuits. A student can get involved in research by directly assisting faculty, joining a lab group, conducting an independent study project, or writing a senior thesis. Penn offers research opportunities to suit virtually any student's interests and curiosities. While research positions abound, many undergraduates do not know how to get started.

### Problem

Undergraduates are often overwhelmed by the vast array of research at Penn. Even those interested in getting involved often don't know where to start, and get lost among many disparate sources of information. There are many access points to research for Penn undergraduates, but sometimes these avenues are difficult to identify. Beyond students who already are interested in research, there are students who have simply never been exposed to rigorous academic research and don't know what it looks like. Furthermore, these students often do not think that research could be a good fit with their interests. Additionally many undergraduates do not understand how research could contribute to their overall education.

### Recommendation

One way to expose more undergraduates to the process of academic research is by attempting to incorporate this type of work into undergraduate courses. The idea is to help students understand and experience the kind of research processes their professors are involved in. This model of learning allows students to understand what comprises academic scholarship in a field of interest.

## After Penn

### Status Quo: Job Applications

Career Services is a major center on campus that operates On-Campus Recruitment (OCR), PennLink, and workshops that guide students looking for jobs and internships. See "Alternative Paths at Penn" in Chapter II for more details on Career Services. In addition, other hubs on campus serve as channels for more specific career opportunities. One is Fox Leadership, which brings companies hiring in the political sphere to campus to interview candidates. Another is the Kelly Writers House, which helps connect students to jobs in the creative world. Many different departments and organizations on campus provide similar resources for sub-sections of the student body.

### Problems

Many companies that recruit outside of OCR participate in job fairs at Penn. Students often find these fairs to be crowded, overwhelming, impersonal, and less than effective at helping them find jobs. In contrast, OCR sets up a system where students can get company-specific information, make personal contacts, and have multiple follow-up steps in the job application process. Finally, there is a lack of centralized information about companies that recruit through departments or small organizations on campus.

### Recommendation

In the long term, Career Services should make it a priority to bring attention to the less represented industries during the job-search process. One way to achieve this goal is to host career fairs for less represented industries in central locations on campus. For instance, hosting a career fair for non-profits in the Huntsman Forum would be a good way to bring attention to those opportunities that are not typically discussed. If companies do not have the resources or scale to afford the costs of coming to Penn, the University should subsidize the costs for select companies. Furthermore, the University should make a greater effort to bring local Philadelphia companies to campus to talk to students about opportunities here in Philly.

### Status Quo: Graduate Schools

Currently, the process of applying to graduate schools is largely independent. Career Services has resources for pre-health and pre-law students, as well as workshops on general interviewing etiquette. Otherwise,

many students work with their advisors, mentors, and department heads as they apply to graduate programs. Additionally, many departments at Penn allow their students to submatriculate, providing them with greater access to graduate degrees that they can receive at Penn.

### Problem

While applying to graduate programs requires a tremendous amount of student initiative, there is a lack of structured support for students going through the process.

### Recommendation

SCUE recommends that department heads be more hands-on in helping their students go through the application process. Clearer inter-departmental communication that explains existing structures for assisting students with graduate school applications will help students get the support they need.

## Conclusion

Education is changing at a rapid rate. Research and technology are inspiring educators to innovate, reforming how current and future generations think about learning. Penn should remain on the cutting edge of these developments. As a leader in higher education, the University of Pennsylvania has the resources and momentum to improve the undergraduate experience in new and inventive ways. The Student Committee on Undergraduate Education believes in Penn's capacity for creating great scholars, thinkers, and future leaders. SCUE hopes that this document can serve as a catalyst for discussion and change

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