INCORPORATING SUSTAINABILITY INTO THE UVA CURRICULUM:
CASE STUDIES OF THE CREATION OF OTHER UVA INTERDISCIPLINARY PROGRAMS

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ABSTRACT

To achieve knowledge of how current programs at UVa have integrated sustainability-related curriculum into their existing programs. Through the interview process, our group has met with leaders across the University to compile data for future projects as well as to denote the methods in which these programs have found success. The final culmination of this project will be a Best Practice Report and informational poster to be displayed at the Sustainability Fair on April 24.

INTRODUCTION

Our workshop group sought to conduct case studies of current academic programs and university initiatives that could provide insight into how to begin an academic movement towards an interdisciplinary curriculum focused on sustainability. In the last few years, there has been an increased awareness of sustainability around grounds, and many student organizations and CIOs focused on making UVA more green and sustainable have been created. Furthermore, many interdisciplinary academic programs have been created, bringing faculty from different backgrounds together in unprecedented ways. We looked to these organizations and academic programs as inspiration for ways to begin a new sustainability program. All investigated programs were either directly related to sustainability, interdisciplinary, or student initiated in order to glean information on how to best to move forward with a sustainability initiative. These case studies are intended to be used as guidelines for what has worked in the past, who the potential stakeholders will be, what the potential problems will be, and what specific steps were taken in implementing each program. Our goals for this project were to learn how these past initiatives got implemented, to gain a better understanding of the steps that were taken to get the programs implemented, and to rationalize a plan to begin a sustainability program. Once we have completed our case studies, we will be able to share this knowledge with other workshop groups and community partners in order to more effectively incorporate sustainability into UVA curriculum. While we may not be able to be the ones to implement a sustainability program, we hope that our report will facilitate the process for future groups based on real-life examples.

INCORPORATING SUSTAINABILITY

The first step of our project was to identify and interview key stakeholders who have experience either in the field of sustainability or in developing and implementing a focused curriculum at the University. Based on those two qualifications, we identified fifteen primary stakeholders with whom we hope to conduct interviews either in person or via email. These stakeholders include Richard Handler and Bob Swap, both of whom were integral in establishing the Global Development Studies Program. GDS has seen success and widespread interest throughout the past five years, but also faces problems of funding and limited resources, especially professors'
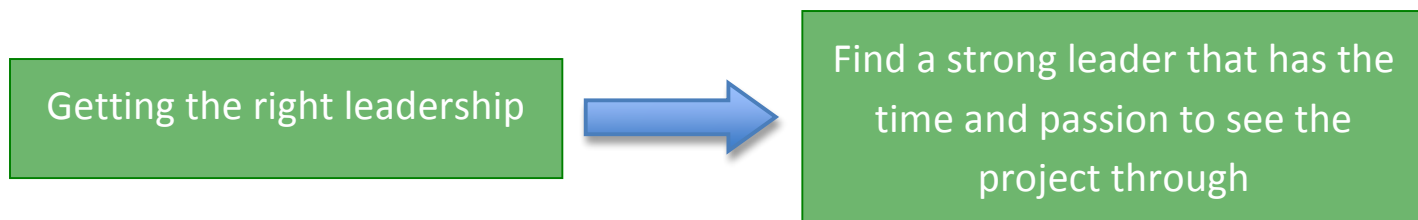
salaries. We also contacted Mayank Bhatia, a member of the Social Entrepreneurship initiative at UVa. Mayank is currently working on a curriculum project focused on social entrepreneurship. This program, SE at UVA was successful in funding one introductory class last fall, gaining monetary support from the CIO SEED (Student Entrepreneurs for Economic Development). Their perspective as student leaders seemed crucial to understand how to effectively communicate with the administration as well as how to best structure this student-led initiative. Other students who expressed interest in collaborating on a Sustainability curriculum include Carla Jones, the student representative for the Global Sustainability minor, and Jenna Godfrey, the Sustainability Coordinator for the School of Architecture. We also contacted Sheffield Hale, a 2013 graduate and founder of SustainaUnity and the University committee for Sustainability. Furthermore, we reached out to Phoebe Crisman, Director of the Global Sustainability Minor; Mark White of McIntire; Bill Sherman, Vice President for Research in the School of Architecture and Founding Director of OpenGrounds at UVa; Jeffrey Blank, Assistant Vice President for Research; as well as John Quale, Director of the Graduate Architecture program and project director of EcoMod. Through coordination with these stakeholders, we hoped to distill best practices that could be applied to our curriculum. We also contacted Environmental Thought and Practice professors Vivian Thompson and Tom Smith as well as Timothy Beatley and Frank Dukes of the Urban Planning Department, but did not receive responses.

Interviewing these professors and students ended up being the best approach to determine precedents in curriculum building at UVa. During the interviews, the interviewees spoke candidly with us about their goals, successes, setbacks, future aspirations, and things they wished they could have changed. The conversations, resources, and guidance these UVa change makers provided us will allow us to develop a comprehensive list of Dos and Donts when it comes to writing a curriculum. In the appendices are copies of all of the interview transcripts. Included also are the proposals that students wrote for Global Development Studies and Social Entrepreneurship that can serve as a template for drafting the Global Sustainability proposal.
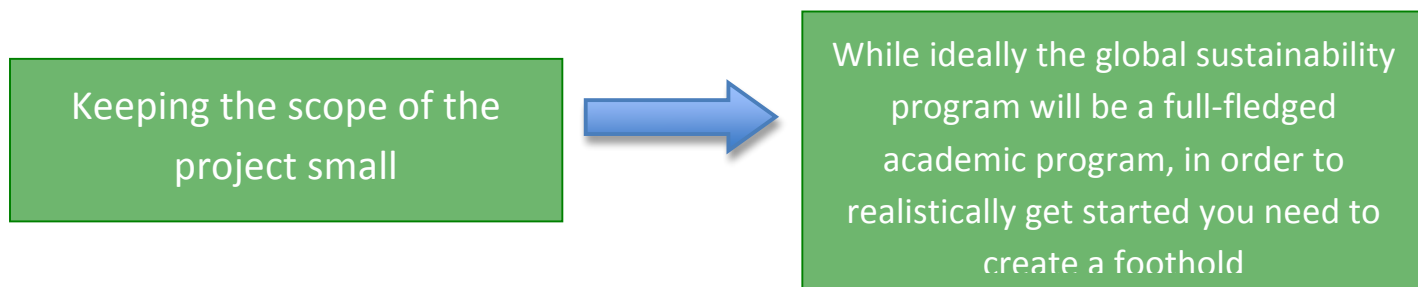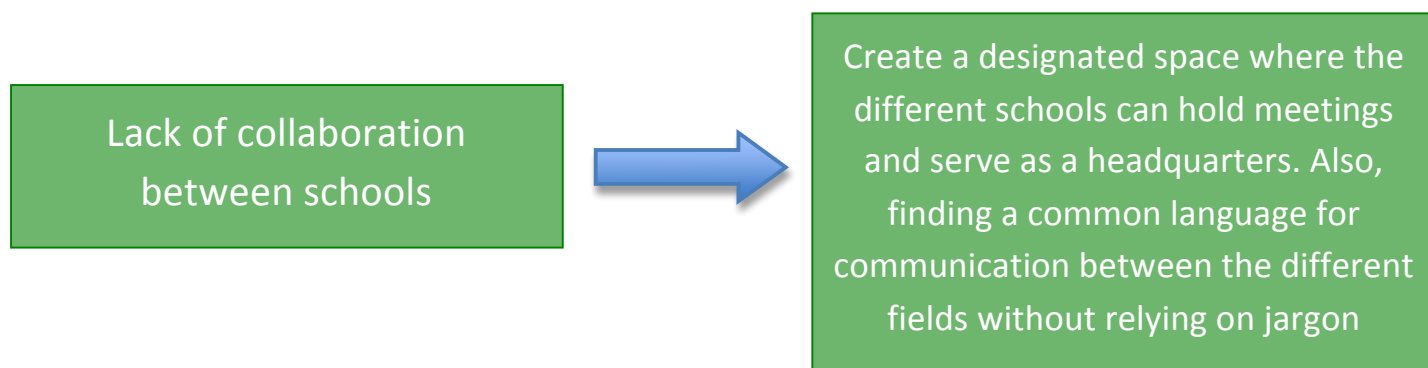
Sustainability Timeline

2007
— Global Sustainability begins as a USEM

— Faculty leaders named for Interdisciplinary Global Development major

— EcoMod Wins Go Green Award from James River Building Council

2008

— Committee on Sustainability Created

— Launch of UVa Sustainability Website

— Darden School of Business pledges to become zero waste, carbon neutral by 2020

2009
— Global Sustainability Minor Approved by College Faculty

— EcoMod becomes UN World Habitat Award Finalist

2010
— SustainaUnity Begins

— Social Entrepreneurship Wins Jefferson Trust Grant

— UVa becomes a charter member for STARs

2011
— Global Sustainability Minor Approved by Office of Provost

— Students Began Sitting on the Committee on Sustainability

— Social Entrepreneurship is Funded by SEED

2012

— Introduction to Social Entrepreneurship Created

— Two Courses Added to Social Entrepreneurship

2013

OBSTACLES & SOLUTIONS

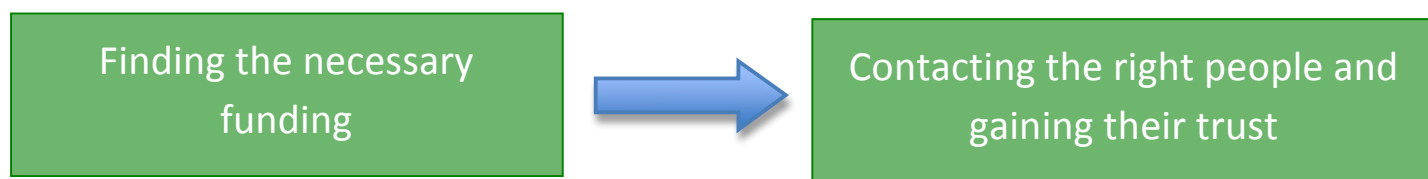| Getting the right leadership | → | Find a strong leader that has the time and passion to see the project through |

One obstacle many of these programs have faced in the past has been finding the right leadership for the program. Professor Swap and Richard Handler from Global Development Studies agreed that a program needed a strong and stubborn leader with enough experience, passion, and dedication to really help. Mayank suggested looking into compiling a group of faculty "champions" representing many different disciplines that would be willing to spearhead this kind of program and fight for its propagation, especially with the administration. Sheffield also talked about the importance of a strong leader, but he emphasized that this leader needed to have the time, resources, and dedication necessary to commit to the project wholeheartedly. Finding such a leader is not simple, and it requires the coming together of circumstances at the right time.

| Keeping the scope of the project small | → | While ideally the global sustainability program will be a full-fledged academic program, in order to realistically get started you need to create a foothold |

In many of our interviews, interviewees discussed the importance of keeping the initial program small in order to create a foothold for the curriculum. For example, Crisman's Global Sustainability class for which we are doing this project began as a small University Seminar. It has now grown to a class of over one hundred students. Furthermore, Handler recommended clearly defining one goal that we want to get accomplished and running with that one small piece until it is accepted. Sherman recommended starting with smaller, more manageable goals to facilitate future growth and to ensure expectations are reached quickly. The important thing to keep in mind is that this curriculum has to start somewhere, and more often than not small programs are much easier to get implemented than a new major, for example. Furthermore, small programs create the opportunity for growth if they are successful, and this growth is much easier with a foothold in place.

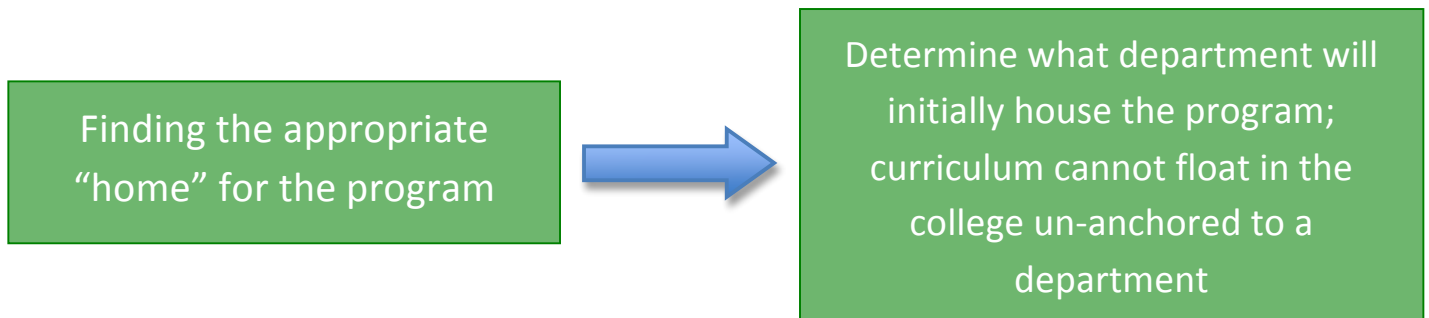| Lack of collaboration between schools | → | Create a designated space where the different schools can hold meetings and serve as a headquarters. Also, finding a common language for communication between the different fields without relying on jargon |

Having a place where all the schools can meet, hold meetings, and so on will help the schools communicate in a more timely and efficient manner. This would serve as a "headquarters" of some sort, rather than holding meetings at random places OpenGrounds is a space that serves specifically for that function, and hopefully we will watch it grow. Another thing is the lack of communication between the schools because of the difference in language, which can be solved by finding a common language between the different fields without relying on jargon. A lot of the time you will find out that the same thing can be said in many different ways. This is linked to building trust, and having a lost of face-to-face contact to build this trust.

| Finding the necessary funding | → | Contacting the right people and gaining their trust |

Luckily, Global Sustainability was supported by a supporter who believed in the course, and therefore, sought to develop the program. GDS however, used a more tactical approach in gaining the necessary funding. They showed that it was a student-run program, which the administration finds very appealing, and the fact that it was interdisciplinary made it even more appealing to donors. Appealing to your target's interest is the main takeaway, so that they will be willing to provide the funding. Lastly, SE used the same approach of having a strategy, but in a different way. They formed a committee of different faculty to connect interested parties in order to expand their connections.

To add to the topic of fundraising, there are plenty of resources and people that are willing to assist organizations such as the School of Architecture Foundation, Student Activities Center, and Greek council. Most organizations in this school do not have access or are unaware of the resources available to them. In the next step of our process, we will try to categorize these resources for easy reference, particularly for newer organizations. By utilizing the resources that are available, having a strong leader, effectively employing the students, and gaining support through the community, these organizations can successfully achieve their goals and aspirations.

Finding the appropriate "home" for the program	→	Determine what department will initially house the program; curriculum cannot float in the college un-anchored to a department

While many of the interviewees agree that such a program should be interdisciplinary to allow for creativity and flexibility, they also agree that there needs to be a place to put the program within a specific department. Professor Handler ruled out the option of incorporating a little bit of sustainability focused curriculum into many disciplines across the university because of a lack of funding and motivation. Therefore, Mayank and Handler agreed that the program needs to find a "home" somewhere to provide support for the curriculum.

LESSONS LEARNED

"Innovation, Dedication, and Adaptation: three vital qualities for developing and executing a project focused on improving social or environmental sustainability will ALSO be the necessary ingredients for a more robust sustainability curriculum at UVa."

Phoebe Chrisman

"Leverage your power and agency as students. Once you start something, the administration cannot stop you."

Bob Swap

"Timing is everything. You need to have the right people, in the right place, at the right time to get a new program started."

Richard Handler

"Gain as much support as you can. From faculty, to administrators, to students, talk to everyone and get them on board with your idea. Once you can prove interest/demand exist, the administration will not be able to ignore you."

Sheffield Hale

"In terms of stakeholders and practice, a number of things one might do is talk about the long term and short term benefits, and make people think differently about the economics. We have to convince people it is in their own self-interest rather than simply impose the idea. It is a process of education, and people recognizing the hidden costs."

Bill Sherman

"Get a strong faculty advisor and find a home, with funding, for your initiative. Also don't be afraid to apply for a Jefferson Trust grant to get the first few classes off the ground."

Mayank Bhatia

The school of architecture foundation, an organization within the School of architecture, directed Ecomod to the right direction in terms of funding. Most of these funds come from alumni, student fellowship funding, etc. In addition to funding these organizations, the foundation also schedule meetings with these stakeholders.

John Quale

DRAFT PROPOSAL TO PRESENT TO ADMINISTRATION

Adapted from GDS and SE Student Proposal Documents

Title Page: _____ Committee presents: Our Vision of a more robust interdisciplinary Global Sustainability Minor at the University of Virginia   Fall 2013

Contents:

I. An Introductory Letter from Committee Chair

II. Executive Summary/Purpose of Report

III. History of Global Sustainability at UVa

IV. Demand for Global Sustainability

V. Building on Strength: Vision, Progress, and Next Steps

- Teaching and Curriculum
- Research and Fieldwork
- Applied Learning and Apprenticeship
- Resources
- Role Models, Community, and Culture

VI. The Faculty Advisory Board

VII. Relevance to Commonwealth and New Economy

VIII. Conclusion

IX. Appendices

- Proposed Structure of Interdisciplinary minor
- Global Sustainability Courses Already in the Curriculum
- Programs at Peer Institutions
- Funding

XI. Endnotes

Introductory Letter:

- Tailor the GDS founding document introductory letter to the Sustainability program.
- Thank all involved parties (including those reading the letter and all those who helped draft the proposal – students, faculty, administrators)
- Explain briefly the make-up of the "Sustainability Track Committee"
- Touch on the history of Sustainability at UVa and past efforts to set up meetings with the Office of the Provost (other top administrators)
- Highlight the progress that has been made with the current Global Sustainability Minor and Sustainaunity
- Provide a brief synopsis of the work of the University Council on Sustainability this past year
- Describe how a more robust Global Sustainability Track will serves as the thread that ties together the now uncoordinated, independent projects that students are forced to pursue
- Discuss endowing a longtime faculty head for the program
- Make a final plea for the track to be strongly considered

Executive Summary/Purpose of Report
- Specify the purpose of the report
    - Explore interest and how this program will satisfy that interest
- Demonstrate that the time is now
- Discuss hope that this will motivate and frame further discussion
- Expand on the 5 tenants of the program:
    - **Teaching and curriculum** to educate leaders on concepts and skills
    - **Research and fieldwork** to further knowledge and support practitioners
    - **Applied learning and apprenticeship** to introduce students to key skills and frameworks
    - **Resources** to support students in their development
    - **Role models, community and culture** to inspire students to pursue these goals
- Begin to develop vision, progress and current strength, and next steps and near-term plans
    - **Vision** – a program that allows every student, regardless of school affiliation, to channel his or her passion and budding talent into meaningful experiences preparing for future careers and ventures in service to communities domestically and abroad.
        - Academically, we seek a curricular home and endowed professorships that will train the talent needed to address the broad range of pressing issues we face today
        - Beyond the classroom, we seek to establish a dedicated center that will serve as a hub for all students engaging in projects and ventures in the field, connecting them with competitions, mentors, resources and funding available
    - **Progress and current strengths** – UVa already boasts a broad base of interest and wide variety of strong opportunities for interested students with much room to grow. Talk about importance of acknowledging and leveraging current strengths in order to best make progress towards a robust program
        - Highlight current projects and number of clubs dedicated to sustainability
        - Talk about Global Sustainability intro-course
    - **Next steps and near-term plans** – many near-term milestones mark the path toward our longer-term goals, demonstrating the demand for and value of our initiative
        - Aim to connect enthusiastic stakeholders into a student steering committee, faculty administrative board, and alumni advisory board
        - Pilot components of future academic program
        - Collect and connect resources available to students through small-scale physical and virtual hubs, mentors, and models

History of Sustainability at UVa
- Attach graph of growth of Global Sustainability classes and students involved in the minor
- Share initiatives of key professors including Phoebe Chrisman, Bill Sherman, John Quale, and other very involved stakeholders
- Discuss the history and formation of SustainaUnity
- Report out information garnered from an interview with Sheffield Hale discussing his engagement in the project and how he started to get it off the ground
- Create a timeline of initiation and progress of Sustainability focused clubs

- Explain how funding has been secured thus far

Demand for Global Sustainability Track

- Using the study conducted a couple years back, convey the demand for a Global Sustainability track
- Express how many independent projects have been started by both students and faculty members and how both parties would benefit from a Global Sustainability Minor

Building on Strength: Vision, Progress, and Next Steps

Teaching and Curriculum

- In this section, it is important to lay out clearly what you are looking for – a more robust interdisciplinary Sustainability track under the Global Development Studies Major (similar to Global Public Health)
- Include how this program would be structure – at least 18 credits of accredit courses offered in the College of Arts and Sciences, as well as the University's professional schools
- Determine funding – how much is needed to endow or pilot this program over three years
- Specify that a detailed curriculum and course offerings for the program is offered in the Appendix
- Show plan to foster integration of relevant sustainability concepts into existing courses across the University

Research and Fieldwork

- Stress importance of UVa to continue funding research and fieldwork dedicated to improving sustainability in housing, economic systems, water and waste systems, businesses, etc.
- Demonstrate how UVa will further its reputation on producing groundbreaking research on sustainability and accelerating promising social initiatives both locally and abroad
- Share the idea that we would like to create a community and ecosystem around sustainability that fosters regular intellectual dialogues, research collaborations, and knowledge sharing

Applied Learning and Apprenticeship

- Large firms and budding startups cross-sector are looking to hire new talent to help them either adapt to the pressures to incorporate sustainability or spearheaded efforts involving sustainability principles. In order to prepare our students to contribute to these projects after graduation, we must provide them with hands-on learning and longer-term apprenticeship opportunities that will enhance and complement their classroom education. We would like the University to have the infrastructure and network to help students from hands on experiences involving sustainability
  - Offer a robust area of applied learning programs including:
    - Consulting projects
    - Internships – grants for up to $3,000/grant
    - Career and fellowship placement support from a practitioner
    - Grants for applied research
    - Incubation and mentorship

Resources

- Highlight how the best young ideas need fertile and sturdy ground in which to grow and how the University must make a commitment not to allow these innovative ideas to fail due to lack of intellectual, financial or human capital

- Suggest the implementation of a center for sustainability with full-time staff devoted to coordinating curriculum and programming related to Sustainability as well as advancing the study and practice of sustainability of the University

Role Models, Community, and Culture

- Stress importance of collaboration and mentorship
- Bring up idea to bring in leaders in the field for conferences, speaking engagements, workshops, etc.

Faculty Advisory Board

- Develop a comprehensive list of what professors have already pledged interest in this project
- According to a document shared to us by Sheffield Hale, these professors scored a 3 (expressed highest willingness to commit): Timothy Beatley (ARCH), Bill Sherman (ARCH), Bob Swap (CLAS – EVSC), Paolo D'odorico (CLAS – EVSC), Richard Handler (CLAS – GDS), Karen McGlathery (CLAS – EVSC), Hank Shugart (CLAS – EVSC), Deborah Lawrence (CLAS – EVSC), Penny Bowles (CLAS – Assistant Director of Student Academic Support), Bill Keene (CLAS – EVSC), Mark White (COMM), Karen Inkelas (CURRY), Richard Brownlee (Darden), Ed Russel (ENGR – STS), Phineas Marshall (ENGR), Teresa Culver (ENGR – Civil), Leon Szeptycki (Law), Jon Canno (Law), Sarah Farrel (NURS), Dorothe Bach (Teaching Resource Center)
- The University Committee on Sustainability has various GoogleDocs that track the meetings surrounding this topic and engaged professors – good place to start

Relevance to Commonwealth and New Economy

- The University is wary to take on any new project due to issues of funding, housing, leadership, etc., so this section is about convincing top University administrators why it is worth it for them to commit their time, energy, and money to making this program a success
- Discuss the changing landscape of business and the importance being placed on Sustainability
- Focus in on the pressures to global and local wellbeing from stressors that can only be solved through innovations in sustainability
- Demonstrate that if UVa wants to keep up with top-universities, they need to act now to implement this program
- Stress the importance of educating students to be the leaders of tomorrow
- Highlight how the nature of this being interdisciplinary also means it will prepare students to engage in a number of cross-sector jobs including design, policy, business, etc
- Make the Global Sustainability track sound sexy

Conclusion

- Sum up what has been detailed above
- Stress that this needs to become one of the University's top priorities

Appendix

Proposed Structure

Required Courses (12 hours) + Electives (6 hours)

Intro to Global Sustainability, an Intermediate field course, a capstone course, an introductory Economics, GDS or Planning course + electives (can tailor curriculum any way you want – environmental sustainability, water or waste infrastructure, sustainability in ethics or entrepreneurship, systems thinking, sustainability in business, managing sustainable development, etc)

Global Sustainability courses already in the curriculum

Identify which courses fall into this category or which could feasibly count for the major → pan-university so classes can be in College, Commerce, Architecture, Engineering, Nursing, Batten or Curry school

Programs at Peer Institutions

Compare UVa to other schools, especially those on the same or higher academic playing field; Analyze how they structure their courses and adjust accordingly; show how UVa has the unique opportunity to position itself about some of the top universities

Funding

Identify sources of funding and do a cost breakdown on how much this proposed program will cost over the next 10 years

Endnotes

FUTURE WORK

There are many professors and stakeholders that were not able to meet with us within the timeline first laid out in the Precedent Analysis and Project Plan. These professors include Vivian Thomson, Tom Smith, Timothy Beatley, Frank Dukes, Carla Jones, Jenna Godfrey, and Paxton Marshall. We hope to interview or receive feedback from these individuals before the end of the semester. After speaking with our initial list of UVa faculty, we have also acquired leads for more interviews. These include Kim Tanzer, Dean of the School of Architecture, and Julie Caruccio, a PHD student who has researched cross-disciplinary efforts at UVa. We will schedule interviews with these potential stakeholders and add their interviews to our research. We will also examine information presented by Sheffield Hale more closely, due to his insight on faculty, administration, and students involved in the global sustainability curriculum initiative.

The next steps for a group moving forward include taking the work compiled here and using it as a framework for the final push towards a Sustainability curriculum. In this report there is a clear analysis of the best practices of past curriculums that were either student-led or the brainchild of a particularly innovative professor. The Student Council Committee and University Committee of Sustainability have already determined the high demand for Sustainability courses. This not only augments that background research, but also provides concrete steps moving forward. At future TRC and committee meetings, the faculty and student stakeholders should fine tune the project proposal, determine the appropriate home for Sustainability, identify at least 3 sources of funding, and get as many people on board before taking the comprehensive package for the program to the Office of the Provost. As always, timing is extremely important. It may take a couple of student-led rallies or a change in mindset of certain deans to get this off the ground, but all the resources are there. The A-school and Nursing school are already on board, but because they are smaller and have less funding, it is up to the next group of people dedicated to this cause to rally the other schools, especially the College around this idea.

CONCLUSION

As we have said, all the resources exist to make the dream of a more robust Sustainability Curriculum at UVa a reality. We have chosen to elect a new track under the Global Development Studies major as the home for GloSus, and we encourage you to run with that idea. What is left is the appointment of a faculty head. Whether it be Hank Shugart, as Sheffield recommends, or another professor from any of the 6 schools, or a new hire, the administration will only take us seriously if we have a professor who is willing to step up as the spokesperson and leader of this project. In an increasingly globalized and interconnected world, it is time for our generation to step up and take control of the issues this type of world could and has created. As one of the

leading institutions in the United States, it is time for the University of Virginia to step up and pledge their commitment to creating such leaders. UVa should be jumping all over this project in order to prove their dedication to innovation and developing the change makers of tomorrow. We know that, and deep down the administration knows that to, so now it is about doing their work for them and presenting them with a robust curriculum that they cannot turn down. The University's biggest fear is that a new program will turn into a liability for the university, sucking up funds and fostering education at a lower caliber than previously existing programs, so we must prove to them that a Global Sustainability curriculum will be not only an asset to this university, but will position UVa as one of the most forward thinking universities because of their dedication to capacity building and the betterment of environmental, economic and ethical systems.

APPENDIX

Interview with Phoebe Crisman
Associate Dean for Research and Associate Professor
Director, Global Sustainability Minor program
Co-Director, India Initiative

Q: What projects have you been involved in to institutionalize Sustainability at UVa? Can you describe in detail your project and the progress of the project?

A: I was involved in initiating the Global Sustainability Course, the Global Sustainability Minor (will be discussed in detail below). I'm also involved in the Committee on Sustainability, which was started by the president's office, and chaired by architect of the university David Newman. I was on the Committee because of the GS minor. There are also sub committees, one of which is research and education, and their goal is to increase sustainability to the curriculum content.

Q: What steps did you take to initiate the project?

A: In spring 2009, I got to know Paxton Marshall and Mark White better through some collaboration on work. And since students have been wondering about starting a foundation course for sustainability, we thought why not the three of us went ahead and started it? We applied for a USEM (University Seminar which is typically restricted to 18 first-year students) as a group of three so that we could have a bigger class, like a triple USEM. The purpose for the course to teach students how to think creatively, to think out of the box. The nice thing about USEM for faculties is that we have more freedom in teaching. Normally, we are given teaching assignments that might not necessarily line up with our teaching interest. And since the course is cross disciplinary, we couldn't really follow the normal path, we had to do something different.

Q: What are some of the approaches that you found successful?

A: I think using the right teaching methods is very important. The setup of the course, which is a combination of lectures and workshops, is to give students an opportunity to think critically about the social, environmental, and economic issues around us. Straight knowledge acquisition is important, but knowing how to use the knowledge is more important. The course is not just about delivering the history, and not just about memorizing stuff, but about thinking creatively and come up with solutions to the assigned problems.

Also, it's better to have more people connected and get exposed to perspectives from different people. It helps a lot when a faculty has a student to work with because students know a lot about the university life that professors might not, and they can generate interest differently.

And the most important thing to success: Never give up, and don't compromise too early.

Q: What are the challenges and difficulties that you faced?

A: 1.coordination problem: In UVA, each of the schools is very autonomous, so it is difficult to correlate them. Engineering School, Commerce School and Architecture School is difficult to work together on interdisciplinary research and work, because the structure of the university makes it difficult. The first fall of the GS course the three of us taught it together, but then we had to split up because one or the other couldn't do it. Since it is no longer taught equally between the three of us, it is taught differently now.

2. Funding problem: The biggest challenge was that the course wasn't a teaching assignment, and I had to seek funding on my own because the private donor of the USEM stopped providing funds.

And since the class is continuing to grow, another challenge will be the limitation of the size of the lecture hall.

3. Course format: There's also a dilemma between teaching the course by myself or doing guest lectures like what we currently have. The former one I'll have more control over the course materials, while the latter one students can get exposed to more various topics and different perspectives from the lecturers.

4. Expansion Problem: The other issue is that the course is very labour intensive. I have to pay seven graduate students to be in these workshops. Taking the potential expansion of the class into consideration, the cost will increase significantly. It is likely that as course increases, the workshops or labs aspect of it will die out.

5. Future Problem: Another question is who can take over the course in the future when we are gone? Nothing is ever static.

Q: How do you see the future of your project?

A: One thing that we've discussed is the proposal to expand the class. Hilton, who supported the GS minor, decided to give money just for the class, and would like to see the course being offered twice a year, or a bigger version of what we have now.

Q: Can you offer some suggestions to our project? Can you provide some potential contacts for us to reach out to?

A: I think Adre Clarins, the sustainable engineering will be a good person to talk to. And also Dean Kim Tanzer of the School of Architecture. She has been very supportive of the minor, and she made it possible for the architecture school to host the GS minor.

Q: Where did the funding come from? Outlets, private donations, or funding from UVa?

A: We asked Milton Adams, and he contacted a private doner who helped finance the course.

Q: What stakeholders do you think are the biggest asset - students? teachers? who is going to be the one to push the project off the ground?

A: Definitely students. Attracting students to the course has never been a problem. And the Global Sustainability Minor was initiated by students themselves, as professors, we helped them. Since sustainability in general is an increasingly important issue in the university, students will start to think about it when they apply to colleges. It's great that students are becoming more and more aware of the issue. You can see on grounds, most of the energy initiatives were started by students.

Q: Did you receive any kind of support? Who did they contact beforehand?

A: I guess the very least we need to before getting any kind of support is to implement our ideas well. No one wants to support an idea in the beginning, but after we prove it successful, things will change.

Dean Tanzer supported the GS minor a lot. It's great that she has the vision and see the minor to be more than itself, as marketing and a positive thing to do.

Interview with Professor Swap
Global Development Studies and Environmental Science

I: In your opinion how did GDS start?

S: In 2006, GDS was just starting. Meredyth Gilmore, who you should talk to, was one of the ringleaders. Back then I used to give me whole, impassioned talk about being there to save the world. I don't particularly like to give that talk any more, but what I like to see is you guys leveraging your power and agency to get out there and make things happen. Meredyth was one of those people. She wanted sustainability and development courses, so she set out to convince people to offer them. This was also during a time of expansion and explosion of activities and CIOs focused on providing development, global engagement, and service learning activities, so her efforts came at the right time. She partnered with Kendall Wallace, who was a girl with a strong sense of determination. I'd describe her as a pistol, very target-focused. She knew what she wanted to do and was going to do it. She just went out there to say, we want to do a major, as students we demand it. But at this point they didn't know what the major looked like. So, the students organized a meeting with professors. I met with her multiple times at length and we decided we wanted to create something that blended theory with practice.

A group of faculty advisors was formed, Brad Brown, me, Gent, Handler, and Rae Blumberg – we were a merry band of idiots. What we contributed was sweat equity and actual dedication and love for the topic and respect for the students.

Richard [Handler] got it passed through, but there was no secured funding. This led to DOG, which was a how-to course. I was trying to envisage an idea of trying to instill humility in the students, seeing as they had just been selected for an honorific major. My course was also listed as the JPC writing course, which led to there being an interesting dynamic and confusion with students. I think since its conception, GDS has turned too theoretical.

I: What do you think is the best way to collaborate between all these stakeholders?

S: What's most frustrating is that everything you do at this University has to be approved of by the administration. While we were trying to create a major that inspired freethinking and was "different than the system," we kept having to go back to the system to credential what we were doing.

Paxton Marshall and Phoebe were doing something a little different. They were pushing more of a sustainability agenda, which was different than development. The crunchies, granolas, and earth muffins all wanted to get in there. I will kindly describe it as the modern equivalent of the island of misfit academics all under the rubric of sustainability. The father of this type of

thinking was really McDonough. He pushed to start sustainability. He realized that we had a lot of creative students, and that we could build off their desire for volunteerism, especially through Madison House. So, there were already proclivities leaning towards what we wanted to do with sustainability. But GDS didn't want to, or didn't have the funding to take that on, so the A school tried to. If it weren't for Phoebe, this would have never taken root because there is significant backlash from the College.

The third push for sustainability came in the form of conservation, or the EBC. The school of thinkers who wanted to push conservation thought that it could be done through bio or environmental science. So the conservation agencies started to take root in Charlottesville, and students got on board by applying for conservation focused JPC projects, which involved community engagement and service learning. This ended with people starting to take on nontraditional roles, especially researchers and general faculty, which ended up causing some problems.

From 2008 to the present we have been trying to pimp these initiatives for some cash. Some people bought into it and wanted to give money, but the institution [UVa] never fully committed itself to it.

I have realized through my work here that it is you students that have the power and agency. You need to agitate for it. Get your parents involved. Tell them to tell the administration that you are not getting a good value here and the only way you will is if the University is more open to curriculum adjustments. You have to manage up; don't just bring them problems, bring them solutions. Phrase them in a way that they think it was their idea "according to what you have said and what we have read, this is what we understand the mission to be. With that in mind, we think there are some steps that should be taken." You have to identify the issue and meet the issue. You know who you should talk to is Sheffield Hale. Just text him or email him. sheffieldhale@gmail.com or 404-697-2410. Ask him how he thinks sustainability came up, he has a great understanding of everything.

The UVa culture exists so that administrators are not going to take the initiative and start anything, but they aren't going to stop you once you start it. As sustainability started gaining momentum, they appropriated it. Sheffield had to get his roll down in writing.

I: How do you see sustainability being integrated in the current system or what should the sustainability courses focus on?

S: Resilience – we need more courses on what are resilient systems. I firmly believe, and will challenge it until I start to grow hair again, that you will not have a sustainable system until you have a resilient system. But, we have to determine what that means and how that works. We are so used to thinking cyclically. UVa is stuck in the sense of thinking in terms of everything as

progression and hierarchy. We need to instill a sense of humility instead of inculcating hubris. For example, we just got a million dollar grant to start Batten, which teaches 20 year old students that they can go out and lead, without any work experience. To lead is a privilege and you have to demonstrate some responsibility. We need to learn to be followers first, and fit within a connected world.

Every day you walk around there is a chance to create change. Teaching should be done through experiments. You have to start somewhere. Everyone you run into knows something that you don't know. They can be an agent of change, but you have to honor and respect that. It is important for UVa students to recognize the dignity of others – that is how you can make a difference. We need to be present in the moment and determine why do we have this need and then define what the need is.

Interview with Professor Handler
Global Development Studies Case Interview

H: a research university and professors however much they may like to teach a lot of what they're rewarded for is producing research, scholarship and writing And there's not much incentive for them to deviate wildly in curriculum creation outside of their own department. If you guys love or captivated by the idea of sustainability and you happen to know that professor x could teach a course that is relevant, lets say idk water, professor x might be willing to teach that course because that course can be offered in environmental sciences and she teaches it anyway, but if you ask professor x to become responsible for any new curriculum that is a whole order of commitment beyond anything that she's supposed to be doing or will be rewarded for doing. And the chance that her chair or her department will release her do that, which means losing her, is really small. Does that all make sense to you? I think one thing that students don't understand is that it is almost a life change to ask a professor to take on a new curriculum. I mean I took this on at a very particular moment in my career. I had been dean for 10 years and I was tired of being dean and wanted to try something new. I am a full professor and at the end of my career now that I had published a ton. I had the freedom to do it, but I took it on with a certain amount of fear and trepidation, thinking I don't know anything about this, how am I going to do this. So to get someone to do this is sort of like where your desire intersects with a very funny moment in somebody's career. Like I think Phoebe, I'm not sure what Phoebe would say, but from my brief conversations with Phoebe I feel that she really wants to do this sustainability thing but she herself isn't in a position to take it on or to take on the leadership of it. Now I don't know if that's because she has other obligations or her dean won't release her, I don't know.

So, you can find faculty that will say great idea, you can find faculty that will say I will teach a course, but to find somebody that will say I will take responsibility for a program that is not easy. I mean I am advising 75 GDS students, now I happen to love these students and they are easy to advise, but most faculty are not going to do that.

Okay, so what happened is this group of students, the GDS group that wrote that document that you read, this was a group that represented a sort of social force, that is to say its been building for a couple decades the fact that you guys, you students, have, at least some of you, this idea that you want to do a certain kind of work in the world that has to do with development, and has to do with some kind of good work in the world, something beyond merely making money, and a lot of students have this idea. And that, led to the creation of this Global Development Organization. I don't know when that was founded, but 2005/2006 and they decided their task was to create a global development studies program. But they were led by two incredibly strong students, one was Kendall Wallace and the other was Pat, who was a PST and Econ major. They were very unusual students with very high sort of leadership and organizational skills. And they put together a faculty group who said, I'd be willing to help with that. And they got about ten of

us, and I was Dean at the time of the Undergraduate College so I could kind of host this thing, I had the port to host it. And we would meet in the Dean's office and sit around and talk about this. And the students, you saw the paper they wrote. That paper included actually, here's what we want as our curriculum, and its not exactly the same as what we got, but the faculty said this is okay, we changed it a little. So they were really sophisticated and on top of things. So really the hurdle for them was to find a faculty member that would take this on, and as I say it was kind of an accident, I kind of got sucked into and decided I wanted to try it. What I did was go to Meredith Woo, who was my boss at the time, the Dean of A&S, and said I want to do this will you let me do this and she said okay. So why did Meredith Woo say okay? My theory, and other Deans have told me I'm right about this, there are several reasons one was that at a time of sever financial stress where it is hard to be innovative, this allowed Meredith Woo, a fairly self-interested player, by creating a new program, she could say look it even in a time of stress we are innovative, number two, it is student led which is very sexy for donors, it's a pain in the ass for faculty, but very sexy for donors, and number three it is interdisciplinary. All of these things are things that upper administrators like. Now as you know upper administrators will talk that talk forever without devoting any resources to it. But in this case you had a very well organized student group and a senior faculty leader, ie me, who was willing to ask to take it on. Also I think that Meredith thought that I had given a lot of years of service to the college and that if I wanted to do this, she was going to reward me and let me do it. Who loses? Anthropology loses. Because I'm a really good undergraduate teacher and they lose me, and they know it and they are really pissed off at me. So it is a zero-sum game. GDS wins and Anthropology loses. Of course Anthropology is a department of 20 people and GDS is just one person, but that's what you are going to run into. Supposing you found a young professor that said, I would love to do this it would be very hard to convince that professor's chair or dean to let that person go to do it. And what was unique about the GDS situation, is because I had been the dean of the college and because nobody can hurt me any more since I am a full professor, and they have no way to discipline me, and because the Dean was willing. That was really rare. That's what you're up against.

I: So what are your main takeaways from this whole process?

H: You need a strong faculty advisor, are there people other than Phoebe?

I: Mark White is very committed to the idea, especially from a Systems Thinking standpoint. I think he would be willing to be involved, but I am unsure how involved he can be.

H: So that's number one you need a faculty group, they have to take the lead in forming a curriculum. Well in the GDS case, the students took the lead. The students could take the lead, but they need the faculty to buy into it. So rephrased, you need students and faculty to come up with a curriculum. You need to decide what kind of program it is? Is it a major? Minor? Series of

courses for younger students so every student has a chance to be exposed to it. I just don't know what kind of curriculum you want.

I: And you think the idea of putting a little bit of sustainability into each department across UVa is impossible?

H: I think that is a loser. It is a loser because its too vague.

So if you put together a group of faculty and students that want to create a program, whether it's a major or a minor or a series of courses, then the next step is you need to decided WHERE institutionally the program is located. It's one thing if it is in the Architecture school; it's another if it's in the College.

I: What about the already existing Sustainability minor?

H: Okay let's revise what was just said. Let's start with the presupposition that they created a minor in the A school. Next question is: do we want a bigger or more organized program than this? Do we want a minor with dedicated courses? Do we want a major? To get from the minor that Phoebe has to a bigger, more structured program, that's where you need a faculty committee.

If you decide you want this more robust program, you have to decide where you want it to be located.

I: Is the A school may not be the right place for it? I just feel like in the College if I hadn't sought this out, because it was cross-listed as COMM 3800, I would have never thought to venture to the A-school.

H: Right, that's right. But I think if the A-school wanted to host it and wanted to advertise it they could get the numbers. The problem is that the A-school is a small, poor school. How you would convince a dean to put resources in this, and this is what you have to ask Phoebe, if you are so committed to this then why aren't you running it. And my guess is, is that she has 600 other things that she has to do for her job. So, you have to decide where it's institutional home is. Remember when I said faculty control curriculum, faculty are in departments in schools. You can't have a curriculum that floats somewhere. It has to live in a school to be accredited. If you want it to show up on your transcript it has to come from a school. It can't come from nowhere. Whoever wants to create this program has to locate it in a school. I mean our global public health program. It's a track in GDS, because the med school doesn't have offerings for undergraduates. Ruth Bernstein wants to teach undergrads, so asks to create this track. You have to find a school that can host it.

I: Is there no way that whatever global sustainability turns in to can be housed under GDS? Or ETP?

H: You need to ask Phoebe, there is a global studies initiative, and she is on the committee and so am I. And what is supposedly going to happen, if we find resources, is that in addition to GDS and GPH, there will be some more tracks. And we have talked in this committee about a global sustainability or an environmental/natural resource?

I: So then is it going to turn into there being a public health track, an environmental track, an economic development track?

H: Yes, but why not. It's all under global. And there are these interdisciplinary tracks. Instead of majoring in economics, you'll major in Global Sustainability and major in some Econ courses and Architecture courses. I'm not sure what

I: So global studies would be an umbrella and there would be sustainability, econ, etc.

H: Yeah we are taking about development studies exist, public health exists, people want to create one in security studies, foreign affairs/international relations, Phoebe wants something in environmental sustainability, and there might be a global humanities track. We don't even know what these things look like. You should ask Phoebe whether there is the possibility that our Sustainability program could grow or come into being.

If there were a Global Sustainability track it might take some people from GDS, but we are turning away so many people already than that would be okay.

What I'm saying though is if we create a major for GDS and it flourishes for 10 years and then it becomes obsolete let it die. And then let some other new one come in. There is nothing wrong with something running its course.

What you should be understanding from this is that GDS is itself a development project, its all about marshalling institutional resources, institutional politics, institutional personalities, and I don't know if you've understood the stories I've told you about how it works.

It's crucial to understand Phoebe's role.

Let me tell you one final thing, professional school knowledge and liberal arts knowledge doesn't mix easily. There is a dream among upper-administrators that you can have these cross-school programs. You would think it would be easy, but it's not.

Interview with Mayank Bhatia
Social Entrepreneurship Case Study

I: Could you give me a background on how the SE at UVa project got started? Whose brainchild was it?

M: The SE at UVa inititative had 2 stages to come to fruition. Hebah Fisher, 2010-2011 SEED President, with Kevin Pujanauski and Brian Lee applied for a Jefferson Trust grant to improve the SE offerings & awareness at UVa, and the proposal won (receiving $55,000 - $25000 in funds with another $20,000 would be matched if $20,000 would be fundraised). This is how the initiative started in Spring 2011 and was governed by SEED (the grant recipient). However SE at UVa, the formal group was only founded in Spring 2012 when Kevin Punjanauski, 2011-2012 SEED President, decided that a separate organization was needed to handle the initiative since it was not part of SEED's core focus (also, too big an initiative for SEED Exec to handle in addition to managing SEED). In the background, Kevin had Lily Bowles and Leah Coates (2 Jeff Scholars very interested in SE and brining SE to UVa). So with Lily, Kevin sought out to recruit a student steering committee for SE at UVa with the organization publicized and interviews. Elliot Rosenberg, Leah Coates, Bobby Donze, Caelan Urquhart, Brian Lee, Marcus Ong, Babak Pourkazemi, Carolyn Harris and myself were initially selected. Elliot, Leah and Bobby were the leading chairs of the committee. So the initiative was Hebah's brainchild but the group was Kevin's.

I: What is the committee makeup of SE at Uva - how many students how many faculty?

M: The committe make up today is the following:
Leading chairs: Elliot, Leah and Bobby (3 chairs with 2/3 majority vote for a decision). They are responsible for leading the meetings, planning with faculty & administrators and helping define SE at UVa' focus & strategy. Of the 3 chairs, Elliot has been instrumental in doing this.

Steering committee members: Responsible for carrying out leading chairs' plans like planning events, publicity, attending meetings etc.
3 graduating members--Caelan, Brian and Marcus
Current members--Phoebe, Gwen Cassady (Masters student), Carolyn Harris and myself.

No faculty officially sits on the SE at UVa group. It's totally student led. Going forward, SE at UVa is recruiting again for new members.

I: How many meetings do you have a week? What do you talk about?

M: Unlike SEED Exec, SE at UVa meets irregularly--approximately 4-5 times in a semester. The meetings discuss updates about the social entrepreneurship initiative (what new developments

are in the pipeline in terms of courses or programs from specific faculty or administrators), SE at UVa initiatives (like events or meetings with faculty/administrators), strategic focus of where we want the social entrepreneurship initiative to go/achieve (end goal) and action items for all the members.

I: How were you able to secure funding for the 3 SE courses?

H: Till Spring 2012, the SE at UVa committee had a lot of trouble in getting interested faculty and administrators (including the vice provost, Milton Adams) to commit to funding courses or programs at the UVa. After Elliot and myself attended the Ashoka U Exchange at the University of Arizona in Feb/March 2012, we met SE program directors from schools like Stanford, Middlebury, Tulane, U of Washington, U of Maryland etc. We concluded and the general advice to us to take the SE initiative forward was to get the different faculty together (it was important to get their support) and having a 'faculty champion'. We discussed this recommendation with Kevin, Lily, Bobby and Leah. So Kevina and Lily worked hard to create a SE faculty & administrator working group that would meet 1-2 times every semester (and to this day that meets) to bring all the interested parties together for the purposes of connecting them and also realizing how many people are interested. Through this we Kevin, Lily, Elliot, Bobby and Leah identified Prof. Christine Mahoney as the faculty champion. Prof. Mahoney over the summer of 2012 worked with Elliot single handedly to sponsor 3 courses (1 for Fall 2012 and 2 Spring 2013) considering Batten wanted to support this initiative. The funding was provided by the SEED Jefferson Trust Grant with an amount in the $20,000-25,000 range (I approved the transaction).

I: Who is your greatest faculty advocate? Do you think it would be helpful for us to speak with them?

M: Prof. Christine Mahoney is our biggest faculty advocate. She wants to see this initiative grow just like us through the Batten School and has got many Batten adminsitrators (like Dean Harding and Dean Hoege etc.) on board. She was interested after first meeting at the working group meeting. Meetings followed and she began to take the lead. Today she is the faculty champion and leads the faculty working group meetings, and also collaborates with the different schools and administrators for the SE initiative at UVa. She with Dean Hoege has gone to the bounds of applying for a second Jeff Trust Grant to continue funding SE programs at UVa (courses, accelerators potentially, internships and competitions for students--all towards some sort of SE program at UVa through Batten). It would be helpful to speak with her to get a perspective on her vision for the initiative.

I: One of the biggest roadblocks sustainability initiatives at UVa has faced is setting up a meeting with the administration? How did SE at UVa manage this?

M: Definitely administration support and interface is always difficult. To the best of my knowledge, we were fortunate in our approach. Kevin, Lily, Elliot and myself initially networked a lot through dinners, events and meetings to connect with faculty (from GDS, McIntire, Engineering, Nursing and administrators (like Milton Adams--Sr. Vice Provost, Wayne Cozart--Director of Jeff Trust, Dean Chris Wilcox Elliot of McIntire, Dean of Nursing school etc.) Fortunately, when we were able to bring all the faculty and administrators together through the working group did they recognize the importance of the initiative. Definite road blocks were not setting up the meetings with administrators (they were doable)--it was asking administrators to gomore than appreciate our initiative and commit their support in some way to our specific ask/request of them. To this day that is very hard and Prof. Mahoney is definitely having more success at it than us. If it were not for Batten, we would have no one willing to commit.

I: What do you think are the necessary elements to start a curriculum at UVa? Student interest? Faculty interest? Administrative interest?

M: All 3 are key, but student and adminsitrative interest cannot be done without. Kevin ran a student led credit/no credit course on SE to gauge student interest. Faculty/administrators are unwilling to listen if there is no student interest/demand. Even with interest/demand, administrators are unwilling to commit unless they see a more strategic value add to the university. So they're support is key for anything to happen or be intiated, since they sign off on it. Faculty interest always helps because then there is someone to teach the course; otherwise it is difficult to find someone outside the university and employ/contract them. Also, it is often hard for students to connect and get administrators to commit while it is much easier for faculty (like Prof. Mahoney is done)--a lot easier.

I: What do you see as the future of SE? Trying to start a major? minor? Where will they be housed? Batten? GDS?

M: I personally see the SE inititiave being spearheaded by the Batten School, only school thus far interested in it. SE is a strong interdisciplinary program that is very emerging and growing at all of UVa's competing institutions (Stanford, NYU, Middlebury, Tulane, U of Washington, Marquette etc.). Also it gives students more of a purposeful education, teaching how to apply their skills towards helping development (the future of volunteer work). So UVa will commit to it eventually in the future and the current provost, John Simon, is interested by it already. There will definitely be courses across the university (mostly in Batten) and university sponsored extra curricular programs, but in terms of a formal major/minor--that is up in the air. It will be housed in Batten in my view. My hope is there is an endowed chair for a SE major/minor at UVa, let's see. There is already room for a program...see the related courses in the document attached.

I: What have been the biggest obstacles of getting SE off the ground?

M: In my view: Getting committed support in terms of funding. Everyone finds the SE initiative interesting, but without funding (which for an endowed chair program would be in the $ millions) we cannot move very forward. Right now it's small steps through our plans, Prof. Mahoney's support and the Jeff Trust funding. With funding backed, a lot of faculty would be ready to commit (they are already doing so in small ways through courses on their own, at least the interested faculty) and so would administrators.

Interview with Sheffield Hale
Former head of SustainaUnity

I: Tell me a little bit about how you got the sustainability initiative off the ground?

S: It started as an initiative that started last spring. We were visioning with some students to gauge their interest. All of them wanted to learn about sustainability but they didn't want to have to go somewhere else to get it. They wanted sustainability to be met where they were, whether they be an English major or an art major, they wanted sustainability to be integrated where it was relevant for them.

After that I began to wrestle with what that meant and where we were supposed to go from there. We met with various professors to start the dialogue of where it should be housed and how it should be structured. One of the ideas was a Teaching Resource Center where professors could share their ideas about how to integrate sustainability. We didn't know how to do this, so we started having brown bag meetings this summer, which brought together professors and students to start asking the right questions.

People that you should definitely reach out to are Alyssa Santos and Ethan who are the chairs of the University committee on sustainability. The committee has a couple of subgroups, including education, but it has been relatively inactive because the professors have been so busy. Phoebe Chrisman and Mark White (co-chair) were involved. This could have been the place where this conversation could happen, but Mark White wasn't ready to take it on.

I: How is the University Committee on Sustainability structured?

S: It is a bunch of stakeholders from all over, 4 faculty, 2 students, a bunch of admins from facilities management, dining, the a-school. It was created as a place for that high level conversation to happen, which could then be converted into recommendations made to the COO and provost on sustainability issues. This was a good venue for ideas to be presented and then introduced to administrations, but what we learned is that they really have to come from students.

I: What transpired after those conversations?

S: We talked to the provost. He was receptive, but made no commitments. We also talked to him at the most inopportune time. It was three days before the president scandal, so our meeting kept getting pushed off because of the avalanche of meetings about who are president was going to be haha. Timing was definitely NOT in our favor. There has always been the idea on the table of getting the Jefferson Trust to fund our project.

I: Have y'all ever made a formal document to present to the administration with your desired curriculum?

S: There has never been a formal document. One that details the different proposal ideas and opportunities would be very helpful. The only document that exists is basically a document explaining the demand for sustainability education, which we have used in conversations with administration to prove to them why this initiative is important. It is made up of feedback from student council and a survey of interest. The stats and background research that are involved in this report are definitely impressive and have proven to be really helpful when talking to the provost. The obvious next step is to determine what the formal document would look like and how that would be drafted into a proposal. It is interesting to have backup for our points, but an entirely different document needs to be created that is able to outline the strategy that you guys decide on.

I: If you had to concretely decide on the next 3 steps you think we should take, what would those be?

S: Definitely integrating sustainability in smaller winds to keep momentum going. For example a small workshop with the TRC, where teachers can come share where they have imbedded sustainability within their classes, will be helpful. This is a small, low budget project that will gauge interest and keep momentum going. Plus it is easier and lower cost than designing a formal program. During these workshops, the professors can decide what sustainability means to them. This is a good idea of a prototype to get the ball rolling. Whenever you post something as a prototype, it is not as intimidating to administrators, and it will be easier to gain the support needed to go to the next step.

You should start by developing a big plan and then protoype some smaller plans.

I: Do you have any idea about who you would want the faculty advisor to be?

S: Different faculty have different visions. Engaging faculty like we have been doing is a great idea because then we can cast a net to see who is interested. Phoebe probably does not have the time, but we invited interested professors to the brown bag meetings this summer and then tracked them based on interest and ranked them 1-2-3.

Faculty and Administrators who scored a 3 (expressed highest willingness to commit) included Timothy Beatley (ARCH), Bill Sherman (ARCH), Bob Swap (CLAS – EVSC), Paolo D'odorico (CLAS – EVSC), Richard Handler (CLAS – GDS), Karen McGlathery (CLAS – EVSC), Hank Shugart (CLAS – EVSC), Deborah Lawrence (CLAS – EVSC), Penny Bowles (CLAS – Assistant Director of Student Academic Support), Bill Keene (CLAS – EVSC), Mark White (COMM),

Karen Inkelas (CURRY), Richard Brownlee (Darden), Ed Russel (ENGR – STS), Phineas Marshall (ENGR), Teresa Culver (ENGR – Civil), Leon Szeptycki (Law), Jon Canno (Law), Sarah Farrel (NURS), Dorothe Bach (Teaching Resource Center)

We talked about forming an advisory group to continue the conversation. You should really look into talking with Hank Shugart. He is a science professor and is really interested in this concept and he has his whole spin on things as well. He is interested in a program for post-doc students who can then teach small classes and be TAs. He's a big name and people really respect him. I'd say definitely reach out to him. Penny Bowles is another one; she is an admin that works in the college and is very interested in this conversation. She was engaged this summer. Other names to look out for are Teresa Culver, of civil engineering, Matt Trowbridge, who works in the med school in public health, and Sarah Farrel, who is a nursing professor.

I: Where do you think this initiative should be housed?

S: Well leadership in the college is really lacking. Dean Woo is not interested in this. However, when I started this I intended it to be a long-term initiative, so you do not have to worry if there isn't a lot of support from the administration right now. Instead you need to determine ways to gain interest fro the college, especially from faculty and students. The college definitely doesn't want to get left behind. There is a different dynamic between the Deans, and considering the A-school, Darden, and the nursing schools have all expressed interest, they will push the college in.

I: Who do you think is the ideal leader for Global Sustainability?

S: Definitely Hank Shugart. He is an awesome guy and at a point in his career where it seems feasible for him to take this on.

Interview with Bill Sherman
Vice President of Research for the School of Architecture, Founding Director of OpenGrounds

I: What projects have you been involved in to institutionalize Sustainability at UVa?
S:
-Bill McDonough arrived as dean in 1994, and brought with him his national leadership in sustainable design, and made it as a mission for the school. He went about it in an interesting way. There was a famous faculty meeting in which he posed the question of how their teaching and practice related to sustainability. Everyone came up with research proposals describing their work and interests, and then some collaborations formed. For example, a connection between landscape architecture and architecture leapt to another level because they saw a common interest and territory that wasn't defined by scale or the scope of the work, rather by the ethic that was carried through. This laid the groundwork for a conversation between disciplines, which is when they started the common course, and the graduate program. This started a whole new series of conversations and dialogues between the school. Although he was only a dean for 5 years, he left an impact that made the faculty think about sustainability rather than adapting his own ideas.

- The Bay Game is another university wide project he has been working on, which teaches students the behaviors of systems through understand the connections between the choices that we make on a day to day basis and their environmental impact. That involved a team of faculty from 8 different schools, with the primary ones being in systems engineering, commerce, environmental science, architecture, and the school of education. That opened up a different way of thinking about research and outside organization. This was a way to bring people together. Its not just about finding solutions, its about changing the dynamic between people to work out solutions. A group in the university had a number of faculty from different parts of the university working on different aspects of sustainability. It started out as how the university would be able to start a sustainability institute, or get funding for this cross-disciplinary work. When Tom Skalak took on this position, he laid down the challenge for this group to build a game that a thousand people can play and work together to either save the bay or kill it. He put down the initial funding to make it happen. The Bay Game began with a very fast push, so it initiated in about 9 months. It started out very crude, but it developed immensely over time. One of they key aspects of collaboration is to define a task that you can get done quickly, and get something concrete out there that then you can start to work on. It takes a person with a vision who wants to act and is willing to support it.

-Open grounds is another initiative that Bill started after he saw the south edition of the school of architecture. He imagined a space where people could interact in the same studio setting. They then did a design studio for graduate students to develop how the space would look like, and he

was the client. Two students came up with the idea of not making another building, but a space where people can meet. They realized that this is a good idea because it meant not having to raise millions of dollars of another building, but rather just renovate and existing space, which coincidentally the university seemed to have.

-The south edition was an opportunity to show an aspect of sustainability that didn't have to do with energy efficiency, which was the dominant paradigm at the time. It was a teaching tool for the students (i.e the sun dial). The university posed some problems since they didn't allow some of the mechanics that Bill wished to execute because they thought it was too much paperwork.

I: What future do you see/plan for OpenGrounds?
S: Its places and programs. In terms of programs A parents of a college undergrad is loaning photographs for a symposium. He is donating it through open grounds to the university, and they managed to get funding for arts and environment. This is a set of scholarships for students to pursue research for environmental action and the making of art. That is the kind of thing that involves students, and puts them in action. In terms of places, they are also building places like the iLab in the Darden school, which makes the university a connection of spaces.

I: Who are potential contacts for us to reach out to?
S: Kevin Burke who continued his practice after working with Bill McDonough and Cary Burke who taught at many different universities. Bill McDonough. Jefferly Plank, who lead the organization effort behind the bay game. Dave Smith or Hank Shugert in environmental science are also very helpful candidates. Josh Yates, who gave a lecture in the course, wrote a piece in ways about thinking of sustainability.

I: How to overcome the bureaucracy hurdle, and how did you manage to influence change?
S: In terms of stakeholders and practice, a number of things one might do is talk about the long term and short term benefits, and make people think differently about the economics. We have to convince people it is in their own self interest rather than simply impose the idea. It is a process of education, and people recognizing the hidden costs. What are the things we are not paying for? The university has also moved very rapidly in 10 years, so it is in a much better place. There are two levels of influence. First of all, there is trying to do things to change public opinion, which is what architecture is good at. Architecture shows how the world works, and how things are interconnected. Secondly, within the university, there was a rising consciousness among a range of people in the university so there wasn't a need to influence many people.

I: Funding/Budget?
S: It was a question of value, what deserves to be funded? Things within the university are usually a challenge, but they had a strong supporter who thought about the long term benefits when it came to the Bay Game.

I: What stakeholders do you think are the biggest asset - students? teachers? who is going to be the one to push the project off the ground?
S: We are all stakeholders when it comes to sustainability.

I: Did you have to contact anyone beforehand for support?
S: University has been increasingly supportive about issues of sustainability, and they have grown a lot over the past 10 years. Bill McDonough is a very strong supporter, and he was one of the international pioneers.

Interview with John Quale
Director of the UVa Graduate School of Architecture, Project Director for EcoMod

I: How has EcoMod grown over the past few years?
J: Initially began with a solar decathlon project that proved to be a successful interdisciplinary project. EcoMod came out of it in 2004. 12 housing units have been built so far, funded by grants to the School of Architecture. Students design the projects through design techniques taught by the professors as well as by using special software to optimize energy and comfort. EcoMod draws from the Engineering School, Architecture School, Darden, McIntire, Law School, Curry, as well as the College of Arts and Sciences. Tasks emphasize research and design and break down barriers between disciplines, allowing for relationships across disciplines. There are also more specialized tasks, such as the evaluation phase, generally done by engineering students.

I: What have been some challenges towards the program?
J: How to work within the education model and aid students across multiple disciplines. Finding a decision making process that works for everyone, and bridging the gap between technical financial, aesthetic, environmental, and social worlds proves challenging as well. Actively searching for and securing grant money is another challenge.

I: Any other comments on EcoMod?
J: EcoMod is completely student-driven and constantly changes from semester to semester. No two projects are the same, and other groups such as Anselmo Canfora's EcoReMod program is a direct result of it. EcoMod is about community involvement, coordination, grants and organizing.