

## **Sustainability Group Project**

### **I. Introduction + Why Sustainability is Important in Education**

Sustainability is important because it is what will shape the future that our children and future generations will inherit. As such, the practices we develop to be good stewards of this planet are what will determine whether we, and future generations, will be able to keep living at the standard to which we have become accustomed. In order for us to develop and adopt these practices, there needs to be education surrounding the practices of sustainability and the obstacles it faces.

That is where Macalester comes in. As a higher education institution, it is our job to train the future leaders and educators for our communities. With a good education in sustainability, these students are empowered to carry out and advocate the systemic changes necessary for creating and implementing sustainable practices. It also satisfies Macalester's values: multiculturalism, internationalism, academic excellence, and service to society. Students can learn how different cultures contribute to sustainable practices, how pollution and waste from 1st world countries are affecting 3rd world countries, and how a sustainable education can be utilized in the workforce.

Teaching about sustainability in courses is important because it provides students with the knowledge and skills necessary to make this sustainable future possible. It promotes mindfulness so that students are aware of the resources they use and the impacts of their interactions, both direct and indirect, with the planet. Students will be better prepared to adopt more sustainable lifestyles and encourage others to do the same. It can also prepare students for the future environmental, social, and economic changes that will influence their lives and allow them to educate others about these same challenges.

#### **a) Why Sustainability is Important in Subjects other than ENVI/GEOL/GEOG**

At Macalester, we see the vast majority of sustainability-related coursework in 3 departments; Environmental Studies, Geology, and Geography. This makes sense, because all 3 of these departments focus heavily on our physical world and the tangible and scientific processes at work there. However, as we know, there is more to sustainability than the earth altering effects of climate change, such as human rights issues, technological adaptation, and public policy to name a few.

As such, sustainability topics are not exclusive to Environmental Studies, Geology, and Geography. Since the changing environment affects everyone - society, economy, culture, health - it only makes sense to include sustainability awareness in all subjects. Additionally, changing our society's mentality toward sustainability and the environment requires help from all areas: the media, businesses, stakeholders, legislators, agencies, etc. The best way to unite all these industries and people to motivate change is to teach sustainability topics across a variety of departments and subjects.

#### **b) Mission Statement for Sustainability**

Currently, as part of the American College and University Presidents' Climate Commitment, Macalester has committed to incorporate sustainability in the curriculum and other educational experiences. At Macalester, Sustainability is also incorporated into classes, academic internships, and study away programs. For example, Macalester's Environmental Studies department supports sustainability on campus through classes, events, newsletters, internships, study abroad programs, and student sustainability projects such as this one. In addition, Macalester secured grant funds for the Educating Sustainability Awareness Program in the Institute for Global Citizenship. We also looked at the Macalester professors who won an Educating Sustainability Ambassadors Course Development Award in 2014-15. The departments that received awards included: Political Science, International Studies, English, Sociology, Media & Cultural Studies, Philosophy, Anthropology, Economics, Environmental Studies, French, Chemistry, and Educational Studies.

Unfortunately, many Macalester students are unaware of the importance of sustainability in education, nor are they aware of the course offerings in departments other than Environmental Studies, Geology, Geography and Biology. It was found that students who major in Environmental Studies have a better understanding of the effects of sustainability initiatives than students in other majors. Our goal for this project is to raise awareness of courses at Macalester that focus on - or include topics of - sustainability. It is our goal to make this sustainability education more accessible to students and to encourage students to learn about sustainability. We compared course offerings of other small liberal arts schools, reviewed the courses offered at Macalester, and brainstormed options to increase the sustainability education on our campus.

## **II. Sustainability Courses at Other Institutions**

We started our project by examining what our peer schools have been doing around sustainability. Looking at the AASHE STARS (Sustainability Tracking, Assessment & Rating System) report for our school as well similar small liberal arts colleges, we find Macalester be in the middle of the road. Our academic rankings are middle of the pack, besting schools like Carleton but lagging significantly behind schools like Middlebury. More specifically, Middlebury has sustainability curriculum across almost all their departments, with 42% of all courses offered containing some sort of sustainability component. This represents the high end of the spectrum. At the other end, we have Carleton, where only 10% of courses cover topics in sustainability. Macalester is somewhere in between at around 13%. The main reasons for these discrepancies seem to be two-fold.

|   | St. Olaf            | Carleton | Middlebury | Macalester |
|---|---------------------|----------|------------|------------|
| <b>Has Signed Presidents Climate Commitment</b>         | No                  | Yes      | Yes        | Yes        |
| <b>Has Sustainability Concentration</b>                 | Yes                 | No       | No         | No         |
| <b>Percentage of Courses with Sustainability Topics</b> | Not in STARS Report | 10%      | 42%        | 13%        |
| <b>Total Number of Sustainability Courses</b>           | Not in STARS Report | 80       | 738        | 112        |

First, Macalester sustainability courses are heavily concentrated in the 3 departments listed above; Environmental Studies, Geology, and Geography. At most of the higher scoring schools, this coursework was distributed cross-disciplinary and touched many more departments. This is critical because in the Macalester system, sustainability education is siloed through a narrow academic area, meaning that only a small section of the population is exposed to these issues and only through one specific lens. These other schools excel because they are successful in embracing the multi-faceted nature of sustainability and relevantly incorporating it throughout the academic offerings.

The other main difference, is that of a focused sustainability curriculum. At Macalester there is no sustainability major or sustainability designation on classes. This makes it impossible for a student interested in sustainability to get a sustainability-focused education or relevant degree. By contrast, other schools, like St Olaf, offer an academic concentration in sustainability. This creates a concerted plan for designing tailored curriculum as well as building up this multi-disciplinary approach.

### **III. Sustainability Courses at Macalester**

Macalester has 22 academic departments that offer at least one course that either focuses on or includes sustainability, out of 45 total. Within those departments, 32 courses focus on sustainability and 80 courses include topics of sustainability, out of 838 courses. So 13.37% of Macalester courses include some form of sustainability. This data was all found on the STARS website- [stars.aashe.org](http://stars.aashe.org) - along with a course catalog detailing the 112 Macalester sustainability courses. We downloaded the catalog and began sorting the courses by department. We found the following information:

(Including Cross-Listed Courses)  
Sustainability Focused:

Environmental Studies - 25  
Geography - 11  
History - 3  
Geology - 2  
English - 1  
American Studies - 1  
Educational Studies - 1  
International Studies - 1  
Philosophy - 1  
Physics - 1  
Psychology - 1

Geography - 17  
Political Science - 13  
American Studies - 11  
International Studies - 9  
Environmental Studies - 8  
Anthropology - 8  
Sociology - 6  
Women, Gender, Sexuality Studies - 6  
Psychology - 5  
Biology - 5  
English - 4  
History - 4  
Educational Studies - 3  
Philosophy - 3  
Economics - 3  
Asian Studies - 2  
French - 2  
Classics - 2  
Linguistics - 1  
Theater and Dance - 1

Sustainability Topics:

As noted earlier, this confirms the heavily siloed nature of sustainability -related education at Macalester. Moreover, this list is not even easily accessible for students, providing virtually no visibility for them to discern and seek out sustainability related coursework

#### **IV. Options at Macalester**

We started our project with research into our peer schools. This included reading through STARS reports as well as schools' respective sustainability office websites. We found Macalester to be fairly middle-of-the-pack among our peer schools. We are specifically lacking in a diversified sustainability education as well as any formal academic designation for related coursework. Based on this information, we decided to research into creating pamphlets or a page on the Macalester website providing information about registering for these courses. We would ideally have these pamphlets available in the registrar office, in the Sustainability Office, and department offices. If we were to also make a detailed webpage about sustainability courses, we recommend linking it on the Sustainability Office website. We met with Jayne on October 12th from the Registrar Office. There, it was determined during our meeting that having a link to this information on the official registration page was not possible.

Additionally, we researched what would be needed in order to create a graduation emphasis in sustainability. Unfortunately, the Registrar Office could not offer us guidance in this area, since it is completely dependent on the departments and faculty members to make decisions like this. We would also need to create extensive course outlines, which sadly cannot be accomplished this semester. Most importantly however, this takes concerted efforts from a conglomerate of professors which can take a couple of years. This should be a goal for future work, however, it requires time commitment and cross-departmental cooperation far outside the scope of this project and similar small-scale projects. It would need to be followed through over a couple of years and likely involve participation from professors in several academic departments.

We found out that curriculum at Macalester is a heavily cemented institution, which we would have little power to change. Curriculum at Macalester is built almost exclusively by professors and most of the departments have heavily ingrained coursework plans. Essentially, changes to curriculum, course offerings, course content, or academic distinctions is incredibly difficult and any such changes needed to be orchestrated by professors or departments.

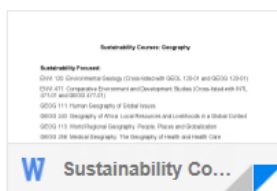
Despite that drawback, another option is to have courses highlighted as including sustainability. The Registrar Office said this was possible by adding a distinguishing phrase to course descriptions, such as 'Sustainability Focused' or includes 'Topics in Sustainability'. During the meeting, we learned that it was possible and pretty straightforward for course descriptions to be changed, if a professor is willing to rewrite and submit it. However, we would have to reach out to each department or professor individually and have them be the driving force behind these changes. Given this, we planned to write sustainability course descriptors which professors could add to their descriptions to denote a course's sustainability components. This would have to be a change implemented by the professors and would have to be voluntary. Additionally, these descriptions would need to be short as to respect the strict character limit facing these course descriptions. Given these parameters, we sent out the following email to multiple departments:

Our names are Zack and Ana and we are students in Professor Hansen's Sustainability and the Campus course this semester. As part of our semester project, we are trying to raise awareness within the student population about courses at Macalester that include topics of sustainability. Our idea is to include a couple word modifier in the course description for classes that are either focused on sustainability or include topics adjacent to sustainability. Currently our template is a designation of either 'Topics in Sustainability' or 'Sustainability Focused'.

We were wondering if professors in your department would be open to this idea of modifying their course descriptions. If so – what steps would we need to take to proceed with this idea?

We have attached a list of courses in your department that were previously deemed as either sustainability focused or adjacent as per last year's campus sustainability report (STARS). If you could review the list for any inaccuracies or courses we need to add/remove, that would be appreciated as well!

Thanks,  
Ana and Zack  
[apooley@macalester.edu](mailto:apooley@macalester.edu)  
[zkatz@macalester.edu](mailto:zkatz@macalester.edu)



Of those we emailed, we got responses from the Biology, Geography, and Geology department. The Biology department suggested that we reach out to individual faculty members vs the entire department. The Geography department said they would bring it up at their department meeting and have yet to get back to us about the results. And the Geology department requested that we add a course - Soil: Science and Sustainability (GEOL 194) - and advertise it. We took this as a desire for us to make the pamphlets and webpage as well. In addition, we realized a need for advertisement of sustainability courses.

## **VI. Recommendations**

After designing the pamphlet and web page, we hope that it can be edited and made live before the next registration cycle. We were unable to create them in time for Spring 2018 registration but hopefully our templates will be useful for semesters to come! We also hope that this documentation will serve as a resource for future students interested in increasing awareness of sustainability courses offered at Macalester. Our goal is to make it easier for students to identify classes which contain sustainability components in the coursework. We may even use it as a guide for future projects as well, since we both have an additional year left at Macalester. Ideally, the Sustainability Office would advertise this information, although departments could also distribute information related to their own courses that include sustainability.

## **VII. Conclusion**

Although the idea of creating an academic concentration in sustainability, or listing sustainability courses on the official registration page was met with some backlash, we were still able to accomplish plenty of research into what is possible at Macalester. Hopefully the pamphlets and webpage will serve as a starting point for raising awareness. The next step would be to reach out to faculty members to encourage additional courses that mention topics in



sustainability, or to gauge interest in creating an emphasis. As determined from speaking with the Registrar, the faculty seem to have the biggest say in what happens on campus, so we would also recommend creating materials that would educate faculty members on the importance of sustainability topics in all courses regardless of subject.