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Norton is a doctoral candidate in civil and environmental engineering at the University of Michigan. His research concerns infrastructure systems design, with a focus on distributed drinking water treatment systems. He won the ASEE Outstanding Student Instructor Award in 2002 and is currently pursuing an academic position.

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Rogers is a doctoral candidate in Chemical Engineering at the University of Michigan. His research concerns pair interaction potentials of colloids for self-assembly of colloidal structures. He won both the College of Engineering and the University-wide "Outstanding Teaching Assistant Award" while pursuing his M.S. at Northeastern University in Boston, MA.
Abstract

This paper discusses the year-long effort by the members of the University of Michigan ASEE student chapter to redefine their mission and purpose in response to changing priorities within their College of Engineering (CoE). For several years, the ASEE student chapter has existed primarily as a service organization within the CoE, planning, organizing, and staffing various activities and events throughout the year. These activities and events generally centered on engineering and higher education but covered a very broad spectrum, ranging from hosting panels such as “Getting into Graduate School” and “Applying for an Academic Position,” organizing a multicultural fair: “The Martin Luther King Celebration,” managing a summer long research seminar series. This approach was driven by the lack of alternative sponsors within the CoE and the interest of the student members. Over the years this led to recognized success in the form of winning - two years in a row - the University of Michigan Elaine Harden Award, awarded to the Michigan Engineering student society that best exemplifies leadership and service.

Recently however, in the Fall of 2005, the CoE made the decision to internalize the management, and thus funding, of a large number of these events previously sponsored by the ASEE student chapter and to plan and organize these events themselves. These events were the “glue” holding the chapter together and as a result the students were forced to examine the mission and purpose of their organization. This paper discusses the implications of this changing dynamic and the results and outcomes of a year-long effort to reorganize the ASEE student chapter at the University of Michigan.

Transitioning from ASEE to the College of Engineering

Over the course of the past two years, the University of Michigan ASEE student chapter (“student chapter”) has noticed a slow transitioning of the programs originally run by the student chapter of ASEE as student chapter activities towards integration and then envelopment with College of Engineering (CoE) activities. These programs, primarily focusing on issues of faculty preparation such as teaching and pedagogy, were widely attended by the CoE graduate student population and were funded in large part from the CoE administration as part of it’s annual funding of student groups and societies within engineering.

As these programs moved towards control by CoE personnel, interest in the original ASEE student chapter programs, as well as associated funding from the CoE, has slowly decreased. For example, a series of programs collected under the moniker “Future Faculty Series” was originally created by student chapter members and has been offered by the student chapter since mid 1990’s. Recently the CoE instituted a program of their own, called Academic Careers in Engineering and Sciences (ACES) with very similar objectives and structure. The described objective of ACES is to prepare senior graduate students for careers at research-oriented universities and institutes. The student chapter found that ACES directly mirrored three of the four Future Faculty Series sessions offered by ASEE. The student chapter was even approached by the Dean of Graduate Students and asked not to offer our program without first speaking to
her office to ensure no overlap between our two sessions. This is only one of many transitions that have taken place between the student chapter and the CoE.

While the transitioning of these activities may prove to be useful to the students given the greater resources of the CoE to offer these programs, there is significant potential negative impact on the viability of the student chapter. The common effort required to offer these programs on a yearly basis help create and develop ties between engineering students of wide backgrounds but similar interests. The student chapter members were not prepared for such an apparently abrupt transition without opportunity to creatively reach solutions with the CoE. Such transitions leaves the student chapter working to come up with new programs and/or activities to attract CoE students who have similar interests in university-level educational careers. Essentially the primary concern of the student chapter is finding that niche of service and developmental opportunities such that “membership” in the student chapter still has appeal to the graduate engineering student.

**History of the Student Chapter of ASEE at the University of Michigan**

The ASEE student chapter was formed to provide an interdisciplinary organization for graduate engineering students of various backgrounds and disciplines to pursue their common passion towards engineering education. Numerous previous members have graduated from the CoE and have become successful faculty at a wide range of institutions, from primarily undergraduate teaching-oriented schools to very competitive Research I universities. The UM ASEE student chapter has had a long history of active involvement directing, organizing, and running various service projects. In recent years the student chapter served as essentially a service organization that offered various opportunities to organize and operate various teaching oriented sessions and presentations that the members felt were unavailable from other sources and which appealed to a wider CoE audience. The additional benefit of these activities was to help develop camaraderie and friendship between students of different backgrounds and disciplines.

**Examples of Programs run by UM ASEE**

The student chapter offered numerous programs that provided enrichment and information related to career and personal development. We briefly describe those programs provided on an annual basis as well as new programs we have started this school year.
Existing Programs

Martin Luther King multicultural fair

The University of Michigan holds annual Martin Luther King activities to educate faculty and students on the value of diversity on campus and in the community. During these activities, the student chapter takes the opportunity to celebrate diversity by hosting a multi-cultural fair. The fair gives the University of Michigan population the opportunity to take part in the many cultures that are represented on campus. Typical activities range from Greek dancing to Indian art and emphasis learning about the cultures being presented. The cultural fair is typically attended by approximately 200 to 300 people during the showcase time period.

Future Faculty Series

A four part series providing those graduate students who plan to enter into academia an opportunity discuss their options with faculty and staff who are experts in the area. The first session focuses on teaching in a research-based university such as The University of Michigan. Typically, faculty from different engineering disciplines are invited to serve as panelist during a question and answer session format for those graduate students strongly interested in starting a career at a research-based institution. Session two turns the focus from a research focus to more of a teaching focus. Faculty are invited from teaching universities around southeastern Michigan to provide insight and answer questions related careers at teaching-focused universities (e.g. Eastern Michigan University). In the third and fourth sessions, the series focuses on forming a research group and obtaining funding from outside resources. Junior faculty members from the University of Michigan are invited to these final two sessions to give their perspectives on what a new faculty member should do in order to get off on the right foot. The Future Faculty Series is a very popular event that draws many people with intriguing questions year after year.

Summer Seminar Series

For six weeks (late July through the end of August), ASEE provides twelve graduate students the opportunity to present their research to other graduate students and a professional from the Center for Research on Learning and Teaching. The primary focus of these sessions is to provide the individual a critique on their presentation skills to help them prepare for events ranging from Preliminary Examinations to conference talks. While the purpose of the summer seminar series is not to dwell on the technical aspects on the individual’s presentation, some critiquing of the technical content is encouraged. Turnout for these sessions vary depending on the speaker and topic of discussion.

Gearing Up for Graduate School Series

In an effort to reach out to the undergraduate population, the Gearing Up for Graduate School, or GUGS, series is offered to help seniors prepare for the long process of graduate school applications and admissions. Running from September to March, this series is broken up into four sessions focused on choosing the right graduate school, how to obtain fellowships and other sources of funding, and meeting future graduate students. During the fall term, the aim is to provide seniors with information on how to approach the graduate school application process and what resources to go to for fellowship information. In the winter, the focus shifts from the
application process to transitioning into graduate school. Several opportunities are provided for
seniors to get their questions answered before they start their first term as a graduate student.
This series has varying attendance levels depending on the level of interest by the seniors.

Non-Academic Careers for PhDs

This highly-attended program, started in 2000, was offered to help students direct their
educational experience as they completed their doctoral research. Since slightly more than 60
percent of the CoE doctoral student population does not end up in academia, this program was
very attractive to the CoE graduate student population. Each session consisted of five area
graduates who had earned their PhDs in either engineering or a closely related discipline. They
each in turn briefly discussed their own history and then the session was opened to questions
from the floor. The attendance ranged from mid 80’s to over 145 students.

Newly Created Program

As the student chapter began to realize the situation and level of support from the CoE we
engaged in numerous discussions on how to maintain our relevance to the CoE student
population. One result was the “Teach Talk” program.

Teach Talk

For the 2005-2006 academic year, the student chapter of ASEE sought ways of providing a more
informal setting for discussing teaching-related topics. We introduced a session called Teach
Talk. Currently in its infancy, Teach Talk takes everyday topics, ranging from cheating to the
imposter syndrome, and turns it into an hour long discussion to generate ideas on how to combat
these issues in the classroom. Teach Talk is also used as a catalyst to increase membership in the
student chapter. While we have run into several hurdles getting the program off the ground, we
feel it become very popular as we tweak its offering to match the interest of the graduate
students.

Future directions

The current student membership is concerned about the future but has conflicting opinions
towards the best course. There are two main lines of thought. The first is that the current format
of offering essentially service activities is most appropriate and that we simply need to redirect
our energies towards creating new activities that will attract interest and participation by the CoE
graduate student population. The second line of thought is that we need to drop the “service
organization” focus which lead to success in the past and instead direct our energy towards
activities which might directly lead to self improvement.

Reflections from current student chapter members

The following are reflections from two current members who are very active in the student
chapter.

“The future of the group should be to continue to provide
seminars/workshops that students need and that the college has not
offered. I think we should become more "teaching" focused than workshop focused, meaning that I want to more directly benefit from the events.” – Jamie

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“What I would really like to see is more of the “to support the increased involvement of underrepresented minority groups in higher education,” since the other two parts of our mission statement seem to be the ones that are now being covered by the CoE. I’d love it if we had a formal, hands-on presentation that we could do for metropolitan Detroit-area schools to try and spark general interest in engineering and to provide information to students about going to college in general.” – Elisha

Conclusions

As the student chapter of ASEE at the University of Michigan moves forward, several questions must be asked about our future. The first question is how to create successful new programs. Starting afresh with a blank slate presents numerous challenges. For instance, attracting the interest of students to a new program offering requires thorough understanding of their needs and concerns. The effort of tailoring a program to meet student interest is typically a multi-year iterative process and is not readily adapted to quick results. For instance, we encountered these problems as we attempt to introduce Teach Talk to the CoE graduate student population. One of the major issues we found with Teach Talk was finding enough topics, especially those that would spark fruitful conversations. In addition, since this was a new program, there was considerable inertia to overcome as we tried to build a successful program.

Until this year the student chapter had a broad set of programs, ranging from widely attended, very successful, offerings to narrowly focused programs that were still evolving in their focus and venue. These programs are now almost completely adsorbed by the CoE administration. Our primary challenge will be to determine a new focus and orientation for our student chapter membership through successful new activities. The success of any new focus and orientation could well determine the success of the Michigan student chapter.