

Student Involvement in ASEE – Past, Present, and Future

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Abstract

This paper summarizes how students fit into organizational structure of the Society, touches upon some of the individual and chapter contributions of students in the past and discusses current activities, and looks forward to possible activities in the future.

Introduction

Students join ASEE in one of two ways: either they join through an established student chapter, or they join as individual members.

Student membership

Students are welcome to join ASEE at reduced membership rates. As members they are entitled to all standard benefits of the society, plus for the past few years the ASEE Board of Directors has voted to offer free normal registration to students at the annual conference.

ASEE is organized in two dimensions: geographically (zones/sections), and by professional interest (divisions and constituent committees) as listed in Table 2. Constituent committees are a sort of trial run for a division; a group is given three years to gain a threshold membership and to demonstrate their ability to persist, at which time it is either formed into a division or disbanded.

Professional Interest Councils (PIC)				
<i>PIC I</i>	<i>PIC II</i>	<i>PIC III</i>	<i>PIC IV</i>	<i>PIC V</i>
Aerospace	Biomedical Engineering	Energy Conversion & Conservation	Computers in Education	College Industry Partnerships
Architectural Engineering	Design in Engineering Education	Engineering & Public Policy	Educational Research & Methods	Continuing Professional Development
Biological & Agricultural Engineering	Engineering Technology	Engineering Design Graphics	Engineering Libraries	Cooperative Education
Chemical Engineering	Environmental Engineering	Engineering Economy	Entrepreneurship	
Civil Engineering	Materials Engineering	Freshman Programs	Experimentation & Lab-Oriented Studies	
Construction Engineering	Nuclear & Radiological Engineering	Information Systems	Graduate Studies	
Electrical & Computer Engineering	Ocean & Marine Engineering	Instrumentation	International	

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Engineering Management		Liberal Education	Minorities in Engineering	
Industrial Engineering		Mathematics	New Engineering Educators	
Manufacturing Engineering		Mechanics	Women in Engineering	
Mechanical Engineering		Physics & Engineering Physics		
		Two-Year College		

Table 1: Division assignments to Professional Interest Councils

There was discussion a few years ago about creating a student constituent committee, but the decision at the time was to leave students under the Graduate Student Division to minimize the time demands for administering student activities. Note that student members can be undergraduate or graduate students; the organization under GSD occurred because this division has development of students dear to its heart. GSD has been monetarily supporting students at annual conference through sponsoring a “graduate student experiences” session, funding a best paper award in that session, and providing pizza and drinks at that session. Student members are free to join any division (up to the maximum of six allowed to all members), and can run for office in the division as well.

Additionally, the ASEE VP has been tasked with considering the needs to student members of the Society and has held a lunch meeting with chapters to discuss needed changes.

Student chapters

ASEE student chapters are currently established at seven colleges or universities. The first student chapter was established at Purdue University in 1993. Since then, chapters have been started at several other schools as listed in Table 2.

ASEE Student Sections		
<i>Active</i>	<i>Recently established</i>	<i>Dormant</i>
University of Michigan	Northwestern University	SUNY – Buffalo
University of Texas		Purdue University
University of Wisconsin		Virginia Polytechnic Institute & State University
Broome Community College		

Table 2: ASEE Student Sections

Student chapter activities are typically target at any of a few goals specifically of interest to students: encouraging undergraduate engineering students to attend graduate school and aiding in their decision of where to apply or attend, aiding graduate engineering students in preparing to seek employment in academia, recognizing outstanding teaching through administration of teaching awards, adding to the sense of engineering community by drawing across all engineering disciplines, and performing outreach activities to encourage K-12 students to consider studying engineering. These goals are directly applicable to the ASEE mission statement:

The American Society for Engineering Education is committed to furthering education in engineering and engineering technology. This mission is accomplished by promoting excellence in instruction, research, public service, and practice; exercising worldwide leadership; fostering the technological education of society; and providing quality products and services to members. The Society seeks to encourage local, national, and international communication and collaboration; influence corporate and government policies and involvement; promote professional interaction and lifelong learning; utilize effectively the Society's human and other resources; recognize outstanding contributions of individuals and organizations; encourage youth to pursue studies and careers in engineering and engineering technology; and influence the recruitment and retention of young faculty and underrepresented groups.

Student chapters often offer two tiers of membership. Participants in local activities are often considered “local” members of the chapter, and as such are included in informational mailings and invitations to events, and they are encouraged to become more active in the local chapter. Typically this level of membership is at little if any monetary charge. Anyone is welcome to join the national organization by applying for membership to ASEE itself; a small portion of the membership fee is returned to the student chapter for use in their activities.

Student chapters must fulfill the requirements of both their home institutions and ASEE. An information packet is available from ASEE HQ for anyone interested in starting a student chapter, plus there are articles which have been presented at annual conferences detailing how to start a chapter and giving suggestions for initial activities which are manageable upon startup.^[1-3]

Past and Present

Students have contributed to ASEE as well as benefited from it.

Student chapters have encouraged students to progress toward an academic career and have increased ASEE’s visibility on their campuses. A study looked at the presence of ASEE student chapters and correlated their existence with an increased rate of entry into academic careers.^[4]

Students have contributed to papers at regional and annual meetings as primary or contributing authors. At the 2004 annual meeting in Salt Lake City, at least one student-authored paper won a PIC outstanding paper award.

Over the last several years, Graduate Studies Division has consistently sponsored an annual meeting session aimed primarily at encouraging participation by students. This session, typically entitled “Graduate Student Experiences,” has provided an opportunity to present reports on student chapter activities, narratives on novel graduate programs involving teaching opportunities, and tricks-of-the-trade regarding graduate study and commencement of an academic career. ASEE HQ has sponsored a lunchtime session for student chapters, held to discuss ways to better support student chapters and inform interested members how to start a new student chapter.

Students have held leadership positions within the Society as well. They have moderated sessions at the annual meeting, reviewed papers, and served as officers in the Divisions.

Students continue to participate in ASEE activities and contribute to their success.

Existing student chapters are active on their campuses and in their communities. Activities include a variety of events including panels on topics of interest, workshops, outreach, and teaching awards.

Efforts to promote social and professional contact with other students have recently increased. Creation of a user group at Yahoo (ASEE_students) and a pub crawl at the ASEE annual conference are initial steps. Identification of students was increased at the 2004 annual conference by the printed “student” designation on the nametags; it has been requested that a “student” ribbon be created (similar to the “presenter” ribbons) to allow self-designation as a student if desired by the attendee.

ASEE has attempted to highlight information thought to be of interest to different segments on its website. Users can select undergraduate or graduate student from options under the “View information for” menu, but unfortunately the provided information focuses on major programs and information pamphlets without telling much information about student events. The previously accessible web page containing information regarding student chapters with links to the individual chapter websites is no longer available.

Future

There are many options for the direction of student involvement in the future.

The current trend of increasing student membership and involvement in the Society will likely continue in the near future. Increased visibility of faculty ASEE members, with such items as the metal ASEE member plates sent out a few years ago that many members placed on their office doors, will contribute to greater knowledge of the Society at schools which do not have a student chapter.

One option for the future is the organization of students within ASEE. Should students form their own constituent committee leading to a division? What would that add? Would division officers necessarily be students? Would that matter?

Another option exists regarding the prevalence of student chapters. Should there be more student chapters? Should there be an initiative to increase the number of student chapters? Who should instigate this, if so? Are there actions that should be taken to revive dormant chapters? To aid existing ones?

Other considerations involve serving as a resource to students. As engineering education becomes a more accepted avenue of graduate study and more students undertake self-directed and/or interdisciplinary programs with the desired to perform research in engineering education, ASEE should work to have resources available to assist students in deciding what to take to aid them in their degrees. The student page on the ASEE website should be resurrected, with direct links to student chapter websites; both the Society and chapter sites could provide information, blurbs about how to get involved or start a student chapter, etc.

Conclusions

The vast majority of student members do not have access to a local student chapter. As such, there should be some mechanism to promote contact with other student members outside of annual meetings. This should allow the sharing of knowledge not just about chapter events but also regarding topics of interest to the students (survival of the educational process, choosing graduate schools, mentorship of “younger” students, etc.).

Consideration of forming a student constituent committee should be revisited. By creating a division, students may be able to voice their needs more easily on a national basis to the Executive Committee. Although at the moment students have the ear of the ASEE VP, this is not assured in the long term. The increased overhead of running a division should not be an unbearable burden if students are elected as division officers, and the experience gleaned by those who choose to become active in the new division would likely encourage their participation in the future in other divisions.

Student chapter formation should continue to be encouraged by ASEE, but it should not be pushed. Several perspectives on the factors required to sustain a successful student chapter have pointed out that some environments are just not conducive to creation a thriving chapter.^[5-6] Interested persons should have easy access to resources noting these environmental conditions as well as supporting references listing common successful events and manageable goals.

There should be an organized meeting of student members, not just student chapters, at the annual conference. This could be as simple as a rallying point at the opening picnic, a session at the meeting, or a dinner sometime during the meeting; some kind of ticketed event that is affordable would be easiest to manage, but publicity is the key. With as many activities as are being currently crammed into the conference schedule, ASEE should consider lengthening the conference by a day to accommodate everything.

Another possible activity at the annual conference is a workshop on a germane topic for students. Possible topics include creating or running student chapters, developing a teaching portfolio, TA survival skills, teaching your first class, or any other interesting topic. Such a workshop should be underwritten to limit cost to students.

Attempts to build the ASEE student community outside of the annual conference should be actively encourage by ASEE HQ. Current efforts have been undertaken by individuals and have not been widely publicized. A cohesive plan to increase communication among student members, implemented and marketed through national publications, could be much more successful.

Most importantly, ASEE should continue its laudable efforts to support and encourage student membership. Students are the future of the Society, and the Society can be a great aid to the future of the students.

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