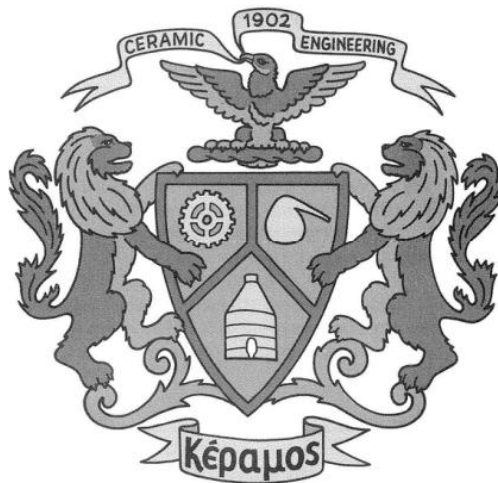


2009-2010 Annual Report

Clemson University Chapter



***KERAMOS NATIONAL PROFESSIONAL CERAMIC
ENGINEERING FRATERNITY***

2009-2010 Annual Report

Clemson University Chapter

Table of Contents

Chapter Advisor Executive Summary	2
Plan For The Upcoming Year	3
Officers And Delegates	4
Members	5
Treasurer's Report	6
Chapter Activities	6
Educational Outreach And Service To The Community	6
Professional Development	8
Social Activities & Alumni Engagement	9
Participation At The Biennial Convocation And Annual Meeting	10

Chapter Advisor Executive Summary

The Clemson Keramos chapter put a lot of time and energy into activities in educational outreach and professional development in the last year. By coordinating guest speakers, career development activities, and providing the means for students to attend MS&T, the chapter has greatly enhanced the educational experience of its members. Attending MS&T is the main focus of the chapter for the year, and was it was a successful trip as always. Through giving tours and demonstrations about material science, the Clemson chapter was able to reach hundreds of students of a variety of ages and encourage them to enjoy science, and maybe even consider a career in materials engineering.

In the coming year, the chapter has plans to continue its engagement in educational outreach and professional development, but also plans to increase its involvement with other chapters and provide more service to the community. Better fundraising and recruitment efforts will be made to better establish the chapter and ensure that there is leadership to maintain the organization. Clemson will be attending MS&T and the Keramos Annual Meeting and Convocation in Houston, Texas in the fall.

Plan for the Upcoming Year

The Clemson University Chapter has big plans for the upcoming academic year. We hope to make great improvements by recruiting new members, getting organized, and providing our members with a valuable experience filled with a variety of professional, service, and social activities.

Every year Clemson's Keramos and Material Advantage student organizations team up to send as many students as possible to the MS&T Conference. This year Clemson is hoping to send 8 students to MS&T '10 in Houston, Texas, most of who are members of both organizations. The conference is a major activity for the chapter that involves months of planning and fundraising. At conference, students will be attending lectures, participating in student-oriented activities and seminars, and gaining valuable professional networking experience. This year the Keramos chapter is planning to enter the mug drop contest. Two student delegates from the chapter will be attending the Annual Meeting and Convocations.

Keramos plans to help coordinate the Clemson Material Science and Engineering Department's annual general engineering tours. The tours serve as an opportunity for Clemson general engineering students to become familiarized with the various engineering departments at the University. Keramos students will be volunteering as tour guides, demonstrators, and greeters to the approximately 250 students that attend. The tours provide a great opportunity for Keramos students to interact with younger undergraduates and promote the field of material science.

In addition to these tours, the chapter will be participating in several educational outreach opportunities, including the annual Engineering & Science Week Expo held at Clemson University. The chapter also hopes to provide further outreach by extending our well-practiced demonstrations to local middle and high schools.

Keramos will also continue to plan the Alumni Tailgate for the Clemson MS&E Department. It is a wonderful opportunity for former Clemson students and Keramos members to reunite, network, and enjoy great food and Clemson football.

The chapter will also be planning professional development activities for its members. We plan to invite several guest speakers from a variety of fields in material science to give presentations about their work. We will also plan tours of a variety of industries to provide a more tangible experience of the industrial opportunities for our members. The chapter will continue to plan and promote resume workshops and provide the necessary resources for preparing our members ready for life after graduation.

Officers and Delegates

Officers for the 2009-2010 Academic Year:

President: Stephanie Whitson.....swhitso@clemson.edu
Vice President: Ryan Needrneed@clemson.edu
Secretary: Stephanie Hartsahart@clemson.edu
Treasurer: Jake Jensen.....jacobj@clemson.edu
Herald: Rachel Traylorrtraylor@clemson.edu

Advisor: Dr. Eric Skaarecskr@clemson.edu

Delegates to the 2009 Convocation and Annual Meeting

Taylor Shoulders.....wshould@clemson.edu
Phone: (864) 680 - 0617
Stephanie Hartsahart@clemson.edu
Phone: (262) 389 – 4956

Members

Advisor:

Dr. Eric Skaar

Active Members:

William Shoulders

James Marro

Adam Cobb

Stephanie Hart

Graham Shepherd

Ryan Need

Stephanie Whitson

Newest Initiates – April 21, 2010

Claire Teresi

Josh Coffman

Antonio Frazier

Alisha Voorhees

Rachel Traylor

Andrew Buff

Jacob Jensen

Jackie Hodge

Treasurer's Report

Because the majority of events and funding is organized by Material Advantage, Keramos has had limited expenses in the past year. Most notably, Keramos helped fund our annual trip to the MS&T conference in Pittsburgh. Eight students attended the conference, including four members of Keramos. Additionally, Keramos assisted with designing and funding a materials themed t-shirt for students.

Chapter Activities

Educational Outreach and Service to the Community

Engineering Student Tours:



Left: Student Alex Evert demonstrating superconductor materials using liquid nitrogen

Right: Student Jessica Jackson demonstrating glass fiber drawing to freshman students

Each year Keramos students help design, organize, and run a two-night series of interactive tours for the general engineering department. Students serve as demonstrators, tour guides, and greeters for one or both nights of the event. Some of our demonstrations included the insulating properties of Kaowool ceramic fiber insulation, non-Newtonian fluids, super conductors, shape memory alloys, and glass fiber drawing. Faculty members attend and assist wherever their expertise is necessary or useful. Each tour typically consists of 20-30 freshman general engineering students and 6 tours occur each night. Approximately 250 students are introduced to the department overall. The opportunity to meet students and faculty within the department has increased interest in the Ceramic and Materials Engineering Program. In the years since the students have taken over the tours, enrollment in the department has increased 25%. The new students have also had a greater interest in Material Advantage and have increased chapter participation as well.

Student Speaking Competition:

Prior to the national student speaking competition at MS&T'10, the Clemson Material Advantage Chapter held a local competition to determine who would be representing our chapter. Two students participated and a group of faculty members was chosen to judge the competition. Our winner and previous chapter VP, Charmayne Smith, went on to speak at the national competition and took second place overall.



Student Charmayne Smith speaking at the student speaking competition at MS&T'09

Engineering and Science Week Expo:

Each spring, the Clemson chapter of the engineering honor society, Tau Beta Pi, hosts Engineering and Science week at Clemson to publicize engineering at Clemson among Clemson students and the surrounding community. As a part of this an Engineering Expo is held and attended by students from many of the surrounding elementary and middle schools. Organizations within the different engineering fields host booths. Each year, Keramos sponsors a booth at the expo. Students volunteer time to set up and man the booth throughout the day. Demonstrations developed for the general engineering tours are used to create excitement in the attendees about science and math fields.

Other Presentations:

The presentations and demonstrations developed by the students also get used for various events throughout the year. Often when events are being held the students of Keramos are called on to meet with and talk to students of all ages. Some students provided private tours, and others represented the department at the FIRST robotics competition, where the students talked to several hundred middle and high school students about the field of materials science and engineering. Several students also participated in the General Engineering department's drop-in info session where soon-to-be engineers could ask established engineering students questions about their respective major and ask for advice.

Native American Fire Mound at the South Carolina Botanical Gardens:

This year several members of Keramos got the opportunity to design and build a 6ft. diameter, 2ft. tall earthen mound for the South Carolina Botanical Gardens in Clemson. The mound is the centerpiece of the new Cherokee Heritage Gardens area on the state-owned property. Fires will be built atop the mound during traditional Cherokee celebrations held to educate the public on the Cherokee roots of Upstate South Carolina and nearby Georgia. One professor and several students worked hard to complete the mound before the grand opening of the Cherokee Heritage Gardens in May 2010. The Clemson Chapter of MA owes a big thank you to Vulcan Materials and Imerys, for donating the gravel and clay used to build the mound.

Professional Development

Conference Attendance:

At the 2009 Materials Science and Technology Conference in Pittsburgh, Pennsylvania, 7 undergraduate students and 1 graduate student from Clemson University were in attendance. Three of the members in attendance were chapter officers who attended the Convocation. These students attended student programs as well as technical presentations based upon their personal preferences and research interests.

The students also attended the ACerS Award banquet where two Clemson faculty members were being honored. One student, Charmayne Smith, after being selected in a departmental competition, participated in the national student speaking competition and took second place. Six students also participated in the tour at Anter Corp.'s facilities. The combination of these experiences has given the students who attended a better understanding of the field of materials engineering and science and networking with Professionals and Peers in the field.

We are currently in the process of planning a trip to MS&T'10. We are hoping to maintain the number of students attending and fundraise heavily to cover all travel expenses. We also are hoping to increase our participation in student activities and have begun work on a mug for the mug drop competition.

Resume Workshops:

The School of Materials Science and Engineering annually publishes a booklet of resumes. Keramos supports and promotes this for the benefit of the school and of its members. The department holds resume and interview workshops and Keramos strongly encourages all graduating and internship-seeking students to attend these events and have their resume included in the booklet. Through these sessions, the participating students gained the opportunity to practice valuable interview skills and also develop strong, professional resume.



Clemson MA students at MS&T'09 with department chair Kathleen Richardson and faculty adviser Molly Kennedy



MA students on the Anter Corp. Industry tour at MS&T'09

Guest Speakers:

We had two guest speaker events for our chapter. The first speakers were Michael Yarborough and Tracee Sanders from Imerys North America Ceramics and C-E Minerals. They discussed their company's role in the ceramics industry, career opportunities, and promoted their internship program to our students. The second speaker was Dr. Earl Wagener, the CEO of local Clemson start-up company Tetramer Technologies, LLC. His talk was focused on what to expect and how to handle engineering and science careers. His vast experience in many varieties of career paths made his talk very useful for our members and gave them guidance as they make their career plans.

Social Activities & Alumni Engagement

Alumni Homecoming Tailgate:



Students and faculty at the annual Alumni Tailgate

Tailgating before football games is a time honored tradition and a huge event at Clemson. In keeping with this tradition, a tailgate was held on the morning of the homecoming football game in the lobby and on the front steps of the department building, Olin Hall. This event invites alumni of the department, current students and faculty members and allows everyone to make connections and enjoy a good day with food. The central location of Olin Hall also allows for an outreach event due to the number of students who pass by the tailgate.

Making Mugs:

Six of our members made mugs to test the chapter's existing clip-casting procedure and recipe. After creating the slip, casting their pieces, and firing, everyone went to a local pottery shop to finish their work. Using a local business for finishing saved us the trouble of ordering and selecting glazing materials, but we also established a connection with the store owner who seems interested in working with MA in the future. We hope to continue work on the procedure and use that work to submit a mug for the mug drop contest at the upcoming MS&T'10 conference.



Students painting and glazing their ceramic wares at a local pottery studio

Participation at the biennial Convocation and Annual Meeting

Three delegates from the Clemson chapter attended the 2009 Convocation and Annual Meeting at MS&T. Chapter President Stephanie Whitson, Vice President Charmayne Smith, and Treasurer Alex Evert were present for the proceedings. The delegates presented the chapter's activities for the previous year and participated in discussions on improving inter-chapter communication and recruitment efforts. The meeting provided a great way to see what activities other chapters were doing and improving our chapter's involvement.