

## **ENHANCING COMMITMENT FIRST YEAR STUDENT RETREAT**

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### **ABSTRACT**

It has been the experience of the Minority Engineering Program (MEP) at Colorado School of Mines (CSM) that incoming students usually do not take advantage of all available resources that are designed to ensure their success. The MEP offers Academic Excellence Workshops (AEW), tutoring, study sessions, clustered math and science courses and a freshman Introduction to Engineering course. A vehicle was necessary to allow students to explore these resources and convince themselves that it is to their advantage to partake in all that a university has to offer. This vehicle is the First Year Students Retreat. The use of retreats to enhance teamwork, cohesiveness and productivity are currently in use by industry. The retreats feature workshops that are fun, insightful and motivational. It is after this model that the MEP at CSM is implementing its First Year Student Retreat. The goal of the retreat is to empower students to become advocates for their own as well as their MEP communities educational goals.

### **RETREAT FORMAT**

#### **Overview**

The First Year Student Retreat is a series of six competitions designed to introduce strategies and resources available to the students through MEP and the university. Ten teams compete during this event for the championship trophy. The champion is determined by the total wins and losses from each of the six competitions. Each team consists of 8-10 players (freshmen), one coach (an upper-class student) and one official (an upper-class student). The retreat requires a general meeting area that can accommodate all students and staff throughout the day. All workshops and group activities are conducted in the main area. Ten separate strategy rooms are also necessary for coaches and teams to meet together during each competition. The strategy rooms serve as each teams locker room and coaching area. Finally, an officials room is required that can only be accessed by officials and the commissioner. A draft of all players occurs during the afternoon session of the first day of the competition. After the draft is complete, the coaches and their teams

are assigned a locker room and given a half-hour to develop a team mascot and team cheer. The cheer is performed in front of the entire group and lasts approximately one minute. This serves as a good ice breaker and each team member must participate during the presentation. After all cheers have been performed, the retreat commissioner introduces all of the workshop presenters and gives an overview of the event. Each competition is preceded by a workshop which serves to introduce a topic or strategy. Workshop presenters are encouraged to be interactive and stay away from the standard lecture format. After the introductory workshop the teams are instructed of the competition rules, time limits and scoring criteria. Coaches and teams are then released to their locker rooms for strategy sessions. The coaches are given fifteen minutes to motivate and prepare the students for each competition. After fifteen minutes, the coaches are asked to leave their teams and report to the meeting area. The teams are then given a half hour to solve the problem, write the paper or develop their skit. Officials proctor the sessions in the locker room and are permitted to answer questions but not help in any other way. The players then report back to the general assembly area to begin the presentation of the next competition. During each of the competitions, officials are compiling individual scores and team averages for the previous competition. The results of each competition are announced before a subsequent competition begins. Team standings are updated during each general assembly. Throughout the competition, it is the commissioners responsibility to maintain a high level of enthusiasm and energy from each participant.

### Schedule

The Retreat schedule below outlines the time constraints and overall sequence of events throughout the weekend.

#### MEP FIRST YEAR STUDENT RETREAT

<u>FRIDAY</u>	<u>CSM STUDENT CENTER BALLROOM</u>	
4:00-4:30 P.M.	Welcome & Staff Introductions	MEP-Julian Martinez
4:30-5:30 P.M.	Freshman Draft	General Assembly room
5:30-6:00 P.M.	Practice Team Cheers	Break-out Rooms
6:00-6:30	Perform Cheers	General Assembly room
6:30-7:00	General Assembly 1 (MEP- Engineering Career) & Dinner	MEP
7:00-7:15	Team Competition 1 (Meeting with Coaches)	Break-out rooms
7:15-7:30	Essay writing: Engineering Careers	Break-out rooms
7:30-7:45	Discussion: Chapter 1: (Studying Engineering Book)	Break out rooms
7:45-8:00	Report on Chapter 1: (Studying Engineering Book)	General Assembly room
8:00-8:30	General Assembly 2 (SDC- Personal Development)	Counseling Center
8:30-8:45	Team Competition 2 (Meeting with Coaches)	Break-out rooms
8:45-9:00	Develop Skit (Personal Development)	Break-out rooms
9:00-9:30	Perform Team Competition 2 (Skit: Personal Development)	General Assembly room
9:30-10:00	Perform "MEP CHEER!"	General Assembly room
<u>SATURDAY</u>	<u>SHERATON HOTEL, LAKEWOOD</u>	
8:00-8:20 A.M.	Arrival at Sheraton Hotel	
8:30- 8:45	Discussion Chapter 4 (Studying Engineering Book)	Break-out rooms
8:45-9:00	Report on Chapter 4 (Studying Engineering Book)	General Assembly room
9:00-9:30	General Assembly 3 (MEP- Collaborative Learning)	MEP
9:30-9:45	Team Competition 3 (Meeting with Coaches)	Break-out rooms
9:45-10:15	Perform Team Competition 3 (Skit: Collab. Learning)	General Assembly room
10:15-10:30	Discussion Chapter 3 (Studying Engineering Book)	Break-out rooms
10:30-10:45	Report on Chapter 3 (Studying Engineering Book)	General Assembly room
10:45-11:15	General Assembly 4 (Financial Aid)	Financial Aid Office
11:15-11:30	Team Competition 4 (Meeting with Coaches)	Break-out rooms
11:30-11:45	Team Competition 4 (Fill-out scholarship App.)	Break-out rooms
11:45-12:30	LUNCH	
12:30-12:45 P.M.	Discussion Chapter 6 (Studying Engineering Book)	Break-out rooms
12:45-1:00	Report on Chapter 6 (Studying Engineering Book)	General Assembly room
1:00-1:30	General Assembly 5 (Career Center)	Career Center
1:30-1:45	Team Competition 5 (Meeting with Coaches)	Break-out rooms

IMPACTING CHANGE THROUGH COLLABORATION

1997 WEPAN/NAMEPA CONFERENCE

1:30-1:45	Team Competition 5 (Meeting with Coaches)	Break-out rooms
1:45-2:15	Perform Team Competition 6 (Resume)	General Assembly room
2:15-2:30	Discussion Chapter 5 (Studying Engineering Book)	Break-out rooms
2:30-2:45	Report on Chapter 5 (Studying Engineering Book)	General Assembly room
2:45-3:15	General Assembly 6 (Goals & Time Management)	MEP
3:15-3:30	Team Competition 6 (Meeting with Coaches)	Break-out rooms
3:30-4:00	Team Competition 6 (Goals & Time Management Plan)	General Assembly room
4:00-4:15	Discussion Chapter 2 (Studying Engineering Book)	Break-out rooms
4:15-4:30	Report on Chapter 2 (Studying Engineering Book)	General Assembly room
4:30-7:00	Break (tabulate scores, dance, MEP cheer & relax)	Break-out room
7:00-9:00	AWARDS BANQUET	General Assembly room
9:00-9:20	Drive back to campus	

## COMPETITIONS

Each competition is designed to follow the text “Studying Engineering” by Dr. Raymond Landis<sup>1</sup>. The text is covered entirely by the end of the retreat. This is accomplished by assigning each team a problem from the end of the appropriate chapter. After discussing the solution as a team, one team member presents the results to the group. Every team member must present at least once. This presentation places the students in a peer environment where they are not only the team representative but also an expert with an effective solution. The presenter must state the problem and then report on the team's solution. Each team must write their solutions on flip chart paper. These flip charts are transcribed and utilized during the fall semester's Introduction to Engineering Course taught by MEP. The text is discussed in detail during the semester. Competitions may be based on any issue critical to the development and success of Science, Engineering and Mathematics (SEM) students. The competitions we use are only examples and the order may vary from year to year.

### Competition 1

The first competition is an essay assignment. The essay topic is “Why I want to study SEM”. The overall objective of this competition is to allow each student to put into thoughts and on paper their reasons a SEM career is for them. This helps them to visualize themselves as effective and involved students. The essays are graded based on format, spelling, content and overall effectiveness. The officials select three essays they feel are exceptional and read them back to the group. Suggestions on how to improve their writing and communication skills are discussed with the students as well.

### Competition 2

The second competition is Personal Development. The students are asked to identify a personal problem that may arise during their academic careers. The group must perform a 3 minute skit in which they state the problem and the solution. This competition raises some interesting topics and situations that students are aware of but usually do not discuss. For example, the fear of not being smart enough to be a successful engineering student is a topic that usually is acted out. Another frequent example is the student who does not quite fit in. Our counseling staff gives a brief talk on the problems the students have and if further discussion is necessary, we encourage the students to set an appointment with the counseling center. As one can see, the students are being introduced and establishing relationships with campus personnel and departments which will play critical roles

in their educational and personal development. The skit is graded on creativity, originality and effectiveness.

### **Competition 3**

The third competition is collaborative learning. During this workshop and competition collaborative learning is discussed and implemented. Each team is given a problem that the MEP is trying to solve. Increasing participation by students in the program or improving students academic achievement are two examples that the students solve during this session. This competition is a skit and once again the students are asked to state the problem and solution during the skit. This is a very effective method of making the students aware of what an MEP is trying to accomplish. The students become active partners in solving issues that affect themselves and this also leverages the MEP staffs time and efforts. The skit is graded on creativity, originality and effectiveness.

### **Competition 4**

The fourth competition is a scholarship application. The office of financial aid presents a workshop on loans, scholarships, grants and the financial assistance process. The students are then given a blank scholarship form to complete. The purpose of this exercise is to ensure the students are aware of their responsibility in the financial aid process, their continued pursuit of scholarships and to improve their skills in applying for scholarships. This competition is graded on neatness, legibility, completeness and effectiveness of the essay.

### **Competition 5**

The fifth competition is a resume writing exercise. The career center presents a resume writing workshop. The purpose of this competition is to have each student produce a resume that may be developed further during the first weeks of the semester. The resumes are scored on format, grammar, spelling and effectiveness. The resumes are given back to the students with suggestions for improvement. The students are also encouraged to register with the career center and attend the career fair during the semester. The students must drop off a clean copy of their resume for inclusion in the MEP resume book.

### **Competition 6**

The final competition is a goal setting and time management exercise. The MEP staff presents a time management workshop in which goals and their importance are discussed. Effective time management techniques are also discussed with an overview of how to utilize a term planner. Each student is asked to develop a specific academic goal for the current term and the academic year. In addition to this, each student is required to develop a term plan, a yearly plan and a five year career plan. This forces the students to look beyond the first year and seriously consider their plan of attack (tactical plan). Each student turns in their plan and it is scored on completeness, effectiveness and content. Each plan is required to have study time, class time, social time and group study time. Each student also receives a term planner for their use during the first year.

## **RETREAT OBJECTIVES**

As stated before, the retreat was developed as a vehicle to introduce the incoming students to MEP and get them to “buy into” the vision of the program. This section discusses the objectives for the retreat.

### **Community Building**

Establishing a strong commitment to studying science, engineering and mathematics is a philosophical cornerstone for the Minority Engineering Program at CSM. This commitment is strengthened by the presence of an academic community of students that are focused on attaining their education. The retreat offers an entrée for MEP staff and returning students to engage the incoming students. The exposure to a strong set of role models and successful examples allows the foundation of an environment in which first year students themselves can succeed. Research has shown that students who are actively involved and utilize their available university system to their advantage persist at much higher rates than those students who choose to go at it alone. This lone wolf attitude is thus discouraged and an attitude of community is encouraged. Realistically there are students who will not “buy into” this new model and thus stick to what has worked in the past. We must keep in mind that new paradigms take repetitive use and practice to perfect, and that students are reluctant to implement new strategies. This is overcome in part by the testimonial and interaction with the upper-class students. The effects of the retreat are exemplified by the fact that the students have formed their own study groups for each course beyond the AEW schedule and each student organization hosts evening study sessions for their members

### **Empowering Students**

The second objective of the retreat is to empower the students to become their own advocates in their education. The retreat allows the students to relate to one another and also collectively bring out their apprehension or fears of being a first year student. During the competitions, coaches are reminded to share their experiences and to look back and bring their first and second years to life. The coaches also offer very strong testimonials to the impact that being involved and staying connected to one another provides the best retention tools. Passing along the legacy of success and discussing the path to success among each other provides a means in which the first year students accept responsibility for their academic success. An interesting sidenote that is noticed during our functions is that the students exhibit a strong sense of commitment toward each others’ success that crosses over any racial or gender lines. The students help each other out during campus programs and fund-raisers. Each student organization (AISES, ASA, NSBE and SHPE) has members from different ethnicities including non-minority students.

### **Leveraging of MEP Resources**

MEP offices across the country are understaffed and overworked. It is not unusual to find a typical MEP staff consisting of a director, a program assistant and an administrative assistant. Three people to address the outcome for typically over 300 students. Leveraging of our staff is critical to operate the variety of programs from pre-collegiate initiatives to everyday academic

duties. If an MEP office can utilize bright, creative and enthusiastic students to manage projects and oversee programs such as high school visitations, then the leveraging effects are ten fold. The goal is to create ambassadors not only for the MEP but wholly for the university. The retreat allows this interaction to begin.

### **Enhance Commitment**

The final objective for our retreat is to enhance the commitment a student may have to being the best student. Often the students that are recruited or declare an engineering major have been sold to the educational program through high tech (Gee-Whiz) demonstrations or by the advice of a counselor. This counselor may believe that, due to a strong academic bent toward math and science, the student should be an engineer. This is not enough, somewhere along the line the student will feel that the investment in time and effort is not enough to pay off in the end. Thus, most campuses end up losing students for the wrong reasons. Due mainly to not enough commitment or the realization of the amount of effort a successful student requires. This lack of selling engineering is the cause of students dropping out during their first year. The retreat serves as our selling tool or lead in product. Once we get the students attention, then we can begin to engage them in conversations about which discipline to select and which industry to target for a career. This is not possible if the students are not sold on the MEP as a value added resource to their experience on the campus. Thus it is during the retreat, that we can sell engineering and the MEP. It is also here that the students can solidify their commitment to one another as a community and in their own minds as successful students.

## **ASSESSMENT**

We use a variety of instruments to measure the success of the retreat and the MEP in general. These tools include but are not limited to an academic tracking database, survey information, focus groups and attendance records.

### **Surveys**

Surveys are collected from the students at the beginning and end of the following events: retreats, MEP meetings, MEP social events and each academic semester. These surveys address expectations from the students with relation to the retreat, MEP and the university. The surveys also query improvement areas, implementation of ideas and new programs that would help in their success. This feedback is critical to us as a programming tool throughout the year.

### **Focus Groups**

Focus groups are conducted every semester to help implement and manage all MEP programs. The students give us valuable insight as to what they want to dedicate their limited time to such as: Community tutoring, science fair projects, presentations, campus organizations and campus representation.

### **Attendance Records**

Attendance records are kept of all functions sponsored by MEP. Several weeks after the conclusion of the retreat we have witnessed attendance increases in the following areas: Academic Excellence Workshops (AEW), tutoring sessions, MEP meetings, MEP community outreach programs, university orientation sessions, university student government and MEP social events

### **Cohort Tracking**

We track each student individually and by incoming cohort for each Fall Academic year. Currently our cohort data reveals that the incoming class of 1995 has an 82% persistence rate. Individual ethnic rates are as follows: 73% for African American, 89% for Hispanic, 75% for Native American and 65% for Asian American students.

## **CONCLUSIONS**

The MEP at CSM has been implementing the retreat as a front-end tool to establish a strong impact and bond with the students and to allow the students to form their own community. We have concluded that the retreat is just the beginning of the process for our program and the students. We follow up with a freshman success seminar, AEW, MEP socials, MEP presentations, corporate meetings, community service work and academic skills workshops throughout the academic year. We feel the retreat enhances the commitment the students have as they begin their journeys as engineering students. It makes the university a place where they are part of the system. It allows them to explore the concept of empowerment and the ability to affect change on campus. They view themselves as a community of learners and achievers. The MEP is their program and not vulnerable to the personalities and ego's of the professional staff. Finally, we believe the retreat allows the students to view themselves as catalysts for change on their campus and in their communities.

### **References**

1. Studying Engineering, Raymond Landis, Discovery Press 1995

