



Department of Mechanical Engineering Industrial Advisory Board Meeting

**Friday, September 21st, 2001
Mechanical Engineering Conference Room – EAS 3327**

In Attendance: Dr. Munroe, Dr. Irey, Marc Zampino, Carmen Schenck, Nigel MacDonald, Dr. Levy, Dr. Tao, Dr. Cao, Dr. Tosunoglu, Dr. Wu, Dr. Tansel, Bob Breslauer (Mark II Engineering), Darragh Rooney (Caterpillar), Bob Shisler (Motorola), and John Nix (Florida Power & Light).

Meeting commenced at 12:02 PM.

Introduction by Dr. Munroe. Dr. Munroe advised the attendees that the next meeting will be held prior to ABET's Spring 2002 visit. The main purpose of the meeting is to examine and review aspects of the Engineering Curricula and suggest remedial measures to ensure excellence and technical proficiency in the professional practice of engineering. Dr. Munroe expressed his wishes to sit as a group to formulate a plan to revamp our curricula.

Dr. Munroe congratulated board members and faculty for making every effort to attend this meeting.

Dr. Munroe presented a brief synopsis of the department, the various areas of specialization, within the department: Materials, Mechanical Systems, Thermo Fluid Systems, HVAC, Manufacturing and Robotics, the Cardiovascular Center, the Biomedical Engineering Center and the possibility of a Materials Science program and future plans for the department.

Dr. Munroe presented charts of the ME Faculty qualifications and contributions to the Department and College and the number of students graduated and hired at different companies.

Mr. Rooney from Caterpillar mentioned that many (approximately 30 F.I.U. graduates) are presently employed by Caterpillar. Mr. Rooney advised both Dr. Munroe and Carmen that he would send them a list of the current employees.

Dr. Irey welcomed the visitors and mentioned that the purpose of the board is to gain feedback.

Mr. Rooney mentioned that most students hired at Caterpillar are for marketing positions. That students need to learn business communications and engineering management (to handle business cases) the basic skills are there but business skills are needed.

Mr. Breslauer (Mark II Engineering) stated that students acquire more hands on training with basic tools and that many students are lacking in manufacturing skills.

Mr. MacDonald mentioned the need for the Robotics summer programs and Mr. Zampino suggested ME participation in the BattleBot Program.

Mr. John Nix (FP&L) suggested that students should be taught how to access information and to try to reduce curriculum hours. He would like to know the flexibility of the ME curriculum, how many credit hours are fixed and how many are flexible. Dr. Wu promised to send the abovementioned documentation to them prior to the next meeting.

Mr. Shisler (Motorola) students have good fundamental skills and need better program management skills, problem solving and knowledge of applications. They should learn how to solve problems statistically – mentioned “Black Belt Programs” offered by Motorola and how they benefit.

Break for Lunch

Dr. Munroe introduced Dean Prasad.

Dean Prasad welcomed both visitors and faculty. Advised that the department has immense growth potential and that the advisory board plays an important role in informing the department exactly what do the industrial prospects require of our students and what their needs are. He also stated that he has been with the College for only a brief time and that he welcomes suggestions and advice from industry.

Questions were asked of Dean Prasad regarding future plans for the College.

Dr. Munroe introduced Carmen Schenck – Mechanical Engineering Advisor

Carmen presented an overall view of the Engineering Advising Center and its benefits. She also pointed out that it is a great benefit to the students that they are able to register within the College. After a brief explanation of what services the Advising Center provides to the students, she also made mention of the Career Center and it's contact Leslie Diehl.

Mr. Rooney mentioned that most recruiting for Caterpillar is done through the Career Center on Main Campus but it is good to know that the Center works in conjunctions with the College.

Dr. Munroe opened a discussion requesting input from the board members and faculty present regarding methods of measuring success within the department/college.

Dr. Irey briefly explained the ABET process and Dr. Wu concluded with our preparation for ABET accreditation stating that the last ABET process occurred in 1996 while he was Interim Chair and the College was granted a 6 year accreditation.

Dr. Munroe reiterated the importance of input from industry in order to improve the programs.

Mr. Breslauer suggested open house participation. Mr. Shisler suggested industrial partner feedback to indicate the progress of the Department. Mr. Breslauer suggested the use of a survey of the current FIU graduates in industry to get a feedback concerning their education/employment experience. Gilda advised Carmen that a survey had been sent to a vast list of ME alumni and responses were available in her office for Carmen's perusal.

Mr. Rooney mentioned the success Caterpillar has had with FIU students and that students are evaluated on a yearly basis.

Mr. MacDonald posed the question of internships to all board members. Questioned the process and why it is so tedious for students.

Marc suggested the participation of board members in presenting ideas for Senior Design Projects. Mr. Nix suggested HVAC projects.

Dr. Cao suggested the industrial board should review textbooks order to focus on what should be presented to our students.

Mr. Rooney requested information on what areas are covered in 128 credits. (Carmen provided each board member with copies of course information). Mr. Rooney commented on the need to build a bridge between industry and the university.

It was agreed upon by the board members that the next meeting would be on the third week of January and at least two to three weeks of advanced notice is proposed. When the board returns in January, members will look through the ME curricula in detail.

ACTION ITEMS

1. Curriculum enhancements (practical & application).
2. Strong computer skills (graduates).
3. Applications through plant tours (industrial) visual aids provided by societies, seminars, etc.

4. Feedback groups.
5. Subcommittee on Applicability.
6. Send alumni survey to board meeting.
7. ½ hour presentations from each company member in future meetings.
8. Scheduling of two more meeting before Spring 2002 – board member must be advised with sufficient time to plan their itineraries.
9. E-mail notice of meetings instead of regular mail:

Jorge Porro

Darragh Rooney

Bob Shisler

John Nix

Chip Toranto

Enrique Enriquez

Nigel MacDonald

Bob Breslauer

Rooney_Darragh@cat.com

CAMTIO@e-mail.mot-.com

john_nix@fpl.com

nigel@bellsouth.net

bbreslauer@marktvo.com

10. A better understanding of ABET accreditation process for board members. Send board members ABET criteria and time frame for ABET visit.
11. What can and cannot be changed in the curriculum.
12. Our curriculum and training must gear toward: TEAMWORK.

Discussion of action items continued.

Meeting adjourned at 3:14 PM.