



MECHANICAL ENGINEERING NEWS

April 11, 2003

A newsletter for the UML Mechanical Engineering community (also available online at <http://m-5.eng.uml.edu>)

Any items you would like to see included in the newsletter or any suggestions/comments?

Please email them to: peter_avitabile@uml.edu or leave them with Jackie Paradise in the Mech Eng office.

Mechanical Engineering Seminar Series - Speakers for Spring 2003

Apr 16 Ton Vasko, Pratt & Whitney

Apr 23 Gene Niemi – UMASS Lowell

Apr 30 Lou Goodman – UMASS Dartmouth

Mechanical Engineering Seminars

Jeffrey Chu - Simbex

Jeffrey Chu gave an excellent presentation regarding test, analysis and design of sporting goods equipment. He focused on some of the real-time data acquisition of imbedded sensors in equipment such as football helmets. The intent of the collected data is to process and obtain real-time information to protect the health and safety of athletes. He also discussed various aspects of ongoing research & development at Simbex.

Mechanical Engineering Seminars

Tom Vasko – Pratt & Whitney

On Wednesday April 16th, Tom Vasko will be presenting a Mechanical Engineering seminar on “Product Impact Dynamics Analyses at Pratt & Whitney: Bird-Strike and Blade Containment”

Tom will talk about some of the analyses that are performed in order to identify the effects of objects impacting critical engine parts and the consideration of engine fan blade containment in the event of failure. Both of these impact problems are very serious design applications that merit detailed, in-depth analysis. Tom will present some of the finite element analyses performed to support this design effort.

Student Advising & Responsibilities

Advising and pre-registration has just been completed. One item that often becomes a frustration point for both the faculty and students is the responsibility of the definition of the student's curriculum. Many students are very well-prepared in this regard. Many students have completely read the course/degree requirements and fully understand the requirements necessary to graduate. Their advising in this regard is simple and straightforward.

However, many times the students come unprepared to the advising session and have no idea what courses they need to take or what requirements they need to fulfill in order to meet the requirement for graduation. The burden of the selection of courses to fulfill the degree requirements rests fully with the student. The faculty are available as advisors to guide the student through the process; the faculty assure that ultimately all degree requirements are met. Unfortunately, some students come to advising and expect that the faculty member will define every course for the student (including schedule times, section numbers, and conflicts and help the student select all of his/her courses).

The student must take responsibility for his/her curriculum and take charge of the overall program of study. The faculty is available for consultation and does in fact sign the schedule of courses that the student selects to assure that requirements are met. But the ultimate responsibility of the overall program of courses selected resides with the student.



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Capstone Projects – May 9th 2:30pm

Capstone projects are well underway. Here is a list of all the capstone projects this semester.

Fuel Pump Vibration Analysis; Leak Tester Device
Thermal Design Guidelines for Electronics Design
Jet Engine Material Selection and Design
ME Lab Flow Bench Experiment; Robotics Design
Mass, Spring System for Dynamic Systems Labs
Cannon Pitching Device for Baseballs
Wave Tank Design
Radio Controlled Model Airplane

ME Curriculum & Summer Courses

Students always request to have more mechanical engineering courses offered during the summer sessions. In general, the courses that have been offered are the Statics, Dynamics and Strength of Materials which are critical courses for the students entering Junior year. These are offered as summer classes taught by adjunct faculty.

In general, the higher level courses (such as Senior courses) are very difficult to offer during the summer months. The faculty universally feel that there is just too much critical information to “cram” into a summer session. In addition, it is very difficult to find qualified adjunct faculty to teach these upper level courses and maintain control of the material presented. In addition, there are other additional reasons that the faculty must also face.

The summer courses do not carry any teaching credit for the faculty members. There is no incentive for a faculty member to teach a summer course. In addition, summer courses reduce the FTE (full-time equivalent) teaching load of the faculty which is the metric as to how productive each faculty member is. Summer courses deplete the FTE metric of productivity. Unfortunately, the simple fact is that there doesn't appear to be any incentive for the faculty to offer upper level courses during the summer. And it is not expected to change in the near future.

Commencement Information!!!!!!!

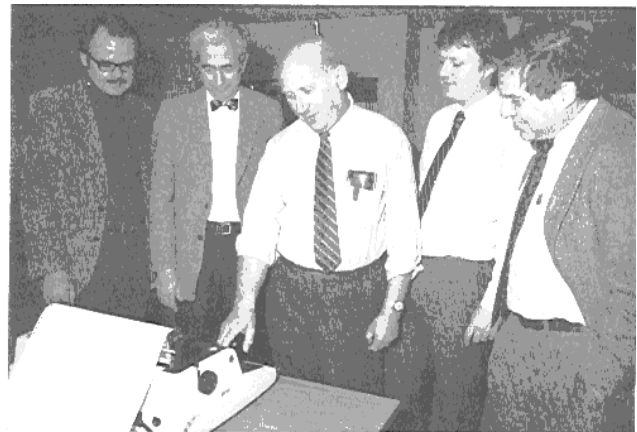
Here is some critical information regarding commencement. This year there will be no formal mailing of commencement activities. The students **MUST** obtain that information on the web site.

<http://www.uml.edu/commencement>

Can you identify any of these “young” faculty members ???

In the last newsletter some of the faculty members from 1967 were shown. While some of the alumni will recognize these professors, our current students have no idea who they were (except for a few who were identified).

Here is a picture from the archives of a few ME faculty looking at the latest and greatest in computation facilities (a printer/modem hookup to the Cyber mainframe system – circa 1980). Some of those faces are well known.



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