



Photo by Derman McLean

Using a Macintosh computer program, GTF Ray Peini measures the momentum and impact of falling objects in a physics class.

COMPUTERS

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similar tools. After several years of collaboration with the Tufts professors, Sokoloff brought the software to the University.

"The computer collects the data," Sokoloff said. In one experiment, students study movement and motion using their own body as the subject.

Students walk back and forth in front of a small, clicking black box. The box is a sonic motion detector and is hooked up to a Macintosh computer on the same table.

As the student paces around the room, the detector measures the student's position as a function of time. At the same instant, the Macintosh computes the students' velocity and acceleration and plots a graph on its screen.

"It's your own body, and you see what it's doing," Sokoloff said. "That's a real teaching experience."

Students are able to interpret the results of their experiments almost immediately, and discuss with the instructor what they've learned.

Sokoloff said studies suggest students gain a more solid understanding of the laws of physics when using computers in their experiments, for several reasons.

First, students learn physics by investigating the physical world, rather than manipulating symbols

'Students spend time analyzing a graph, instead of the drudgery of plotting it.'

— David Sokoloff,
physics professor

or discussing concepts abstractly, as with traditional courses.

"It challenges you to make predictions while doing the experiment, instead of just confirming the outcome," Sokoloff said.

Second, the immediate feedback from the experiments encourages students to collaborate. Because the data is presented in an understandable way, students can discuss the validity and implications of it with peers, Sokoloff said.

Sophomore Brian Collings said the computers have helped him learn the basics.

"You get a visual image both on the computer and what's in front of you," he said. "It makes you think a little harder about what you're seeing."

Graduate teaching fellow Ray Peini said he's found students appreciate the speediness of the computers most.

"The computer does the graph right there, in 20-25 seconds," he said. "You don't have to wait 10-15 minutes to find out if you need to do it again."

ET ALS

MEETINGS

Semper Fidelis Society will meet tonight at 6:30 in EMU Cedar Room C. For more information, call 342-1725.

Druids will meet tonight at 6:30 in the EMU Board Room. For more information, call 346-9923.

Student Senate will meet tonight at 6 in EMU Century Room A. For more information, call 346-0630.

OSPIRG Alternative Energy Campaign will meet tonight at 7 in EMU Cedar Room C. For more information, call 346-4377.

Returning Students Association will meet today at 5 p.m. in EMU Room 27. For more information, call 346-4305.

RELIGION

Campus Crusade for Christ/Main Event will meet tonight at 7:30 in Room 238 Gilbert. For more information, call 683-0686.

Deadline for submitting Et Als to the Emerald front desk, EMU Suite 300, is noon the day before publication. The news editor does not have a time machine. Et Als run the day of the event unless the event takes place before noon.

Notices of events with a donation or admission charge will not be accepted.

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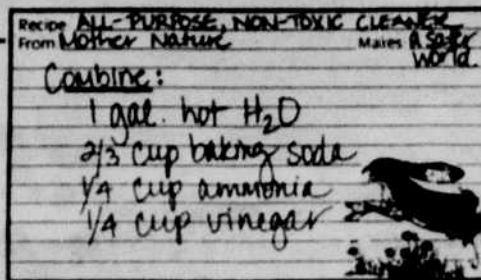
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vinegar and open up the windows.

Instead of mothballs, which contain chemicals that are harmful to your liver and kidneys, use cedar chips when storing away winter clothes for the summer.

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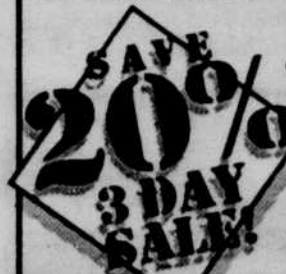
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