

You can learn physics

Chemistry made simple

by Prof. Frank Harris

About 10 years ago while attending a professional meeting, I overheard a faculty member from another institution say that the first course in college physics is taught at three levels: physics with calculus, physics without calculus, and physics without physics. The implication of his remark was that students for whom the third type of course is designed do not have sufficient mathematical skills to understand physics.

I did not agree with his contention at the time and now disagree to a greater extent. We were then designing a course in college physics for students whose main interests lie outside the fields of physics, chemistry, and biology, and we were not about to be discouraged by anyone.

Our experience over most of the last decade with our course in physics (PHYSICS 101), as well as with its sometimes volatile cousin in chemistry (CHEMISTRY 101), is that physics and chemistry can be understood without reliance on a strong math background.

Our basic objective has been to present these subjects in an interesting, understandable, and enjoyable manner to students with a bit of

curiosity, but requiring little or no background in science. Our approach stresses the ideas, or concepts, or physics and chemistry rather than the mathematical rigor of the courses for science majors.

In Physics 101, we explore topics such as celestial motion, mechanics, energy, heat, wave motion and musical sounds, light (LASERS and holography), electricity, magnetism, atoms, and the atomic nucleus. We do solve problems in this course. However, the solutions rarely involve more than the simplest mathematics, but rather require an understanding of the concepts.

A typical problem goes something like this: Suppose you find yourself teetering on the edge of a cliff, or on the roof of a tall building with a heavy history book in your hands. As you are about to fall, you remember how physics can save you.

What law did you remember, and how did you apply it? We try to emphasize that science, in general, and physics, in particular, represent creative human endeavors whose practice is actually based on the unprovable assumption that a real physical world exists independently of humans.

In Chemistry 101, we exa-

mine the structure of matter and the properties of matter, also in a fairly non-mathematical way. We have come to realize that the natural world is a chemical world. This means that chemistry is very much part of daily living.

An understanding of the fundamental concepts of chemistry enhances our ability to comprehend important issues relating to such areas as energy and the environment. We hope that such understanding can aid us in solving some of our problems in these areas.

In addition to Physics 101 and Chemistry 101, the Department of Physical Sciences offers several other courses designed primarily with the non-science major in mind. Astronomy (PHYSICS 102) and basic photography (PHYSICS 103) are taught in physics on occasion, while geology (CHEMISTRY 103) and chemistry and society (CHEMISTRY 201) are offered in chemistry. This semester for the first time, a joint offering entitled Energy and the Way We Live (CHEM/PHYS 271) is being offered in the evening program. Of these courses, only Physics 101, Chemistry 101, and Chemistry 103 may be taken to satisfy the portion of the



Dr. Martha Smith, associate professor of English, has been promoted to full professor effective with the fall term 1980. Dr. John Sullivan, philosophy, was also made professor. Dr. Smith will be the second woman with the rank of professor now at Elon College. Photo by Whitmore

10 sem. hr. math-science requirement referred to as "a four-hour laboratory science." However, any of the other

courses listed above can be used to satisfy any portion of the remainder of the 10 semester hours required.

Angyal speaks

Tri-Beta inducts new members

by Janet Spoon

Fifteen students were inducted into Beta Beta Beta, the biological honors society last Wednesday. The program included the induction, a dinner held on the second floor of the Long Student Center and a lecture presented by Dr. Andrew Angyal.

Four active members inducted into Tri-Beta include David Osborn, Hydu Byrner, Bob James, and Julie Blevens. Associate member inductees are Roger Bryant, Lisa Foster, Glenda Fowler, Brad Hearn, Julie Jones, Cindy Koger, Nathan Pulkingham, Kenneth Roach, Jan

Suiter, William Tippet, and Keith Wells.

To be an active member, a student must first serve as an associate member. Associate members must have a 2.0 average. Active members must have a 3.0 overall average and a 3.3 in biology.

Dr. Andrew Angyal, professor of English, addressed the group on "Evolution and Fossil Record." He presented a showcase of vertebrate fossil remains which were collected last summer while he and his wife were on a seminar trip to Nebraska.

Dr. Angyal is currently writing a biography of Loren Eiseley, an American scientist

and naturalist. Eiseley did his first field work while he was an undergraduate at the University of Nebraska in the early thirties. Dr. Angyal spoke of the fossil record and its part in collecting information on evolution.

This was the third annual induction Tri Beta has held at Elon. Beta Beta Beta honor society is a national organization founded in 1922.

Journalists

their own individual organizations to compete for office, Barber said.

Role of Journalists

Thus, it falls to journalists to perform the functions that parties once did— evaluate and recommend alternative candidates and policies.

Journalists now decide what issues and persons are important on the national political agenda, the political

Faculty promoted

Six members of the Elon faculty received promotions, to begin with the next academic year, in action taken by the Board of Trustees at its March 5 meeting.

Dr. Martha Smith, English, and Dr. John Sullivan, philosophy, were appointed full professors. Promoted to the rank of associate professor were Dr. Janie Brown, physical education; Dr. David Crowe, history; Dr. Carole Troxler, history; and Dr. Rudolf Zarzar, political science.

The board granted tenure to five members of the faculty: Dr. Howard Higgs, human services; Dr. Herbert

House, biology; Dr. James Pace, religion; Dr. William Rich, religion; and Dr. Lawrence Simon, education.

Carlyle Isley has been appointed special assistant to the president of the college. He is moving from the development office to responsibility for Alamance County public relations, solicitation of gifts from large corporations, and other duties assigned by President Fred Young.

Dr. Jo Williams as director of development will assume full responsibility for that office. Martha Stephenson has resigned as grants coordinator to resume work toward a doctor's degree.

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scientist added. "They affect judgements, and by estimating the probabilities of success and failure, they shape the public's perception of the future."

Barber said journalists in the 1980 "stand out as better educated than any previous generation of newspeople, yet their education is typically in some standard academic discipline such as English literature, which did not always

prepare them adequately for the variety of assignments they would encounter."

Barber said the social journalism program will attempt to counter such shortcomings by using advanced social science courses, as well as some in the law, economics and perhaps some scientific disciplines "tailored to the student's anticipated areas of journalistic concentration."

The second annual Mount Airy News 10,000-meter run and one mile fun run are scheduled for Sunday, April 13, with Sunday, April 20, set as the rain date. Proceeds from the races will go to the work of the Reeves

Y.M.C.A. Community Center in Mount Airy.

Requests for entry forms should be mailed to:

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