

Police students learn about bullet physics

United Press International
HUNTSVILLE — Explaining how bullets knock people down is the business of physics professors, but the knowledge also is proving useful to policemen taking it all in at Sam Houston State University.

The university, which has one of the nation's largest criminal justice programs, offers a two-semester course called "Physics with Applications to Police Science."

Aside from giving examinations to law enforcement students, Charles Manka and Jack Wilson say their three-year-old class makes more sophisticated investigators of the 80 students who attend each year.

"What we're trying to do is to give the student enough physics so that he can make some decisions about things in his career environment," said Wilson.

Physics does describe the real world and how materials behave in it, said Manka. And one of the subtopics we teach is critical thinking, like "If this happens, then that happens."

For example, said Wilson, "The knockdown power of the bullet is determined by the momentum of the bullet, which is the product of its mass and speed. All of the bullet's momentum is transferred to the body after impact. Therefore, the body has to move, but its mass is

greater than the bullet, so it's going to move slower. The body then transfers its momentum to the earth on impact, but the earth is so big it doesn't move at all.

Understanding principles like this, he says, helps policemen make reasonable decisions.

"We want them to make logical decisions about physical facts and they need to know physical principles to make these decisions."

Wilson tells the story of a law enforcement officer from a rural Texas county who discovered in the classroom that for years he had incorrectly calculated vehicle speed from skidmarks.

"He was very surprised to learn that there was a nice relationship he could use to get the speed of the car from skidmarks and it wasn't the one he'd been using," Wilson said.

Besides ballistics and skidmarks, the elective science course involves basic electronics radios, bugging devices, binoculars and spectroscopic analysis of evidence.

"We go through neutron activation analysis, using neutrons from a nuclear reactor to activate, say, a hair sample, and then identify it from the radiation it emits," Wilson said. "We use a reactor at Texas A&M for that."

The two lecturers prefer not to use the electric chair, "Old Sparky,"

also located in Huntsville, as a teaching aid. "We use the automobile ignition and find we get along better with that."

Wilson said a few "old wives tales" are dispelled, like the slugs that bounce off bullet-proof shields on television.

"In reality, it can knock you down and break a few ribs."

Summer sun hard on eyes and skin

United Press International
ROCHESTER, N.Y. — Summer sun is almost as harsh on the eyes as it is on the skin, says Gordon Taylor, director of research and development for a lens manufacturer.

Glare is the main factor in eye-strain and possible impairment of night vision.

To be effective, Taylor said, sunglasses should filter out at least 70 per cent of visible glare and sunlight as well as the invisible heat and sunburn rays: infrared and ultraviolet.

Top of the News

Campus

TEXAS A&M Associate Dean of Agriculture, Dr. R.C. Potts, has received a special award from the Texas House of Representatives for his long leadership in agricultural education. During A&M's recent Agricultural Convocation, Dean Potts also received a plaque from College of Agriculture students citing his 42 years of service to Aggies.

MOEBIUS, the first literary magazine to be published by the MSC Arts Committee in 22 years, will go on sale next Thursday, April 21 in the MSC. The magazine features poetry, prose and art by Aggie students. Issues are \$1.

Texas

THE HOUSE tentatively approved legislation legalizing the manufacture, sale and distribution of laetrile in Texas as a treatment for cancer, yesterday. The FDA has not approved this drug and patients that receive it must obtain it in Mexico or other areas where it has been legalized.

LEONEL CASTILLO of Houston, President Carter's nominee for head of the Immigration and Naturalization Service, says he opposes any program for issuing universal identification cards for American Citizens.

FORMER AIDE to Eisenhower and Nixon, Stephen Hess, said that

89 per cent of the federal budget goes to benefit individuals, to grants to states and localities, to pay interest on the federal debt, and to those things untouched by reorganization.

National

ONE SOVIET VESSEL has been released after being charged with violating the United States 200-mile limit, but another is being held while National Marine Fisheries officials examine its cargo.

MIDNIGHT is the deadline to get tax forms off to the Internal Revenue Service. An IRS spokesman said that those that probably are going to get a refund have already filed. Of the first 47 million returns processed by the IRS this year, 39.7 million persons got refunds. The average refund was \$448. Some post offices are to stay open later than usual Friday and to be cleared more often.

HENRY FORD II, chairman of the board of Ford Motor Co., announced the creation of a three-man Office of Chief Executive. Ford will share the decision making with two other people. He will remain chairman of the auto firm until late 1982, if his health remains good.

BY THE TIME the average American child reaches the age of 14, he has seen 11,000 television murders, an official of the National Parent-Teachers Association reported in Albuquerque. "It is an

appalling fact," said Jean Dye, coordinator of legislative activity for the organization during the New Mexico PTA State Convention. Mrs. Dye, the mother of six, said the association is going to take a more active role in trying to have violent programs eliminated from television.

FIFTEEN former pressmen at the Washington Post pleaded guilty yesterday to reduced charges in the destruction of the paper's presses on Oct. 1, 1975 during a bitter labor dispute. The pressmen pleaded guilty to misdemeanor charges of simple assault, attempted grand larceny, property damage and disorderly conduct after prosecutors agreed to drop the felony charges, which included rioting. Superior Court Judge Sylvia Bacon set sentencing for May 20. None of the charges the men pleaded guilty to carry a penalty of more than one year in prison.

A JURY of six men and six women was chosen yesterday, ending 12 days of selection in the second murder trial of Manson disciple Leslie Van Houten. The trial will begin Monday. Miss Van Houten originally was convicted, at her 1969 trial with Charles Manson and two other female followers, of taking part in the stabbing murders of Leno and Rosemary Labianca two nights after actress Sharon Tate and four friends were slain. She was serving a life sentence when a new trial was ordered because her defense attorney vanished during the trial.

PRESIDENT CARTER said today he believes there is no reason to change the basic U.S. proposals for arms limitation, adding "I do feel encouraged" about the likelihood of ultimate success of the SALT talks. Carter, in his fifth news conference, said he would "welcome a chance to visit... on a regular basis" with Soviet party leader Leonid Brezhnev. Carter said he hopes to meet with Brezhnev "annually at least, and later this year in our own country."

A FEDERAL JUDGE has ordered Texas prison officials to draft an affirmative action plan for full desegregation of state inmates. Acting yesterday on a class action filed by two black inmates in 1972, U.S. District Judge Robert O'Connor Jr. set guidelines requiring modified racial quotas. O'Connor said the proportion of a minority in each prison unit must be at least 70 per cent of that minority's proportion in the total inmate population.

World

PRIME MINISTER Ian Smith says progress in the search for majority rule in Rhodesia hinges on active involvement by the United States. The State Department announced that they would be willing to co-sponsor with Britain any new conference to work out Rhodesia's future.

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West Screen 7:15 **Skyway Twin** 822-3300 East Screen 7:15
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CINEMA II

TODAY 3:40 5:40 7:40 9:40
MONDAY 7:40 9:40

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CINEMA II DAILY AT 7:30, 9:45
TODAY ALSO 3:00, 5:15



Now comes Miller time.

