A Nobel Laureate Departs

Prof. J. Robert Schrieffer, winner of '72 Prize, joins UC-Santa Barbara on January first

At the University of California at Santa Barbara there is a palpable sense of victory in the air. At Penn, on the other hand, there is a vague sense of loss and disappointment. "How did we lose him, anyway?" asked a perplexed College Hall official recently in a private conversation with a reporter.

The "him" in this case is Dr. J. Robert Schrieffer—Mary Amanda Wood Professor of Physics and one of the University's two current Nobel Prize holders—who has decided to head west in mid-career. Schrieffer, 48, is joining the UC faculty in January, and his decision to go, he says, is irrevocable.

"It's surely a loss for Penn, but it's great for us," says Dr. Robert Huttenback, chancellor of the Santa Barbara campus. "It's good for our self-esteem."

Schrieffer, who joined the Penn faculty in 1962 and shared with two other American scientists the 1972 Nobel Prize for physics for his work in the area of superconductivity, says that "Two years ago I got thinking that I was half-way through my scholarly research career and that I should plan the next half. I thought it would be helpful to me to make a major change. I had a nebulous feeling of wanting more stimulation, a whole new direction."

He could have moved then, if he had wanted. The newly organized National Institute for Theoretical Physics, based at UC's Santa Barbara campus, was anxious to have as its director a physicist of Schrieffer's standing, but the offer apparently was not sufficiently enticing.

"I rather liked the beauty of the location, the beauty of the place," remembers Schrieffer. "It's a gem." But he was reluctant to leave Penn because of the "academic excellence and the uniform high quality at this campus. The students at Santa Barbara," he observes, "are not as good."

Schrieffer's determination to find a new home base finally prevailed, however. In March of this year, while vacationing on the West Coast, he phoned his former Penn colleague, Dr. Douglas J. Scalapino. "Wouldn't it be nice if we could get together somewhere," he suggested. Scalapino, a native Californian, liked the idea, but said he was committed to stay put. Schrieffer, though, was flexible—and six weeks later he accepted the invitation from UC-Santa Barbara's physics department.

Scalapino obviously is jubilant about the opportunity to team again with his old friend. "From the point of view of our institution," he says, "Bob's joining us is the most major thing that's happened to us in 25 years. We have been trying to recruit top people in all of our departments for the past four or five years, and getting Bob Schrieffer is the culmination of this effort. The reaction here has been extremely positive."

Schrieffer has not ruled out some kind of adjunct status with Penn; however, he is clear in his own conscience that his departure is good not only for him personally, but, in a sense, for the University as well.

"Since it's difficult to get new, young faculty into the University each year, it's important to have permanent rotation among senior faculty. There's an advantage to getting people to stir around. People get sedentary and narrowed in their research focus unless they move."

(See SCHRIEFFER, page 4)
German Reaction to ‘Holocaust’

Predictable responses to a post-movie survey

Only 15 percent of 824 Germans surveyed, before Holocaust was shown in their country, felt that Nazis should still be prosecuted.

After the series was shown, however, 39 percent of the 1,018 Germans surveyed felt that Nazis should still be prosecuted.

These findings are part of a study done at the Institute of Media Studies at the Technical University in Berlin. They were presented Sept. 24 at the Annenberg School of Communications as part of the fall colloquium.

Half of the Germans questioned before the showing felt that Nazi leaders should no longer be prosecuted, but that number dropped to one-third after the showing.

The effect of Holocaust on Germans has been widely attributed as the single most decisive influence in the recent 255-222 vote of the West German Bundestag to permit prosecution of Nazi war criminals.

People under 30 years of age, too young to remember the era firsthand, said they learned more about the period of national socialism through the series than people over 30.

The scenes most frequently named as impressive were those of death and destruction, such as the ones depicting mass execution, torture and gas chambers.

Elderly people particularly remembered the scenes of “Reichskristallnacht”—a time that many of them lived through.

Sympathy for the characters was clearly distributed: Dr. Joseph Weiss was named 180 times as the most sympathetic male character. His son Rudi was named 90 times, and named 25 times each were Karl Weiss, Moses Weiss, and Kurt Dorf (Eric Dorf’s uncle).

Berta Weiss, who was named 154 times, was the most sympathetic female character. Inge Helms-Weiss was named 98 times and Helena was named 41 times.

Nazi regime characters, on the other hand, were hardly mentioned. Erich Dorf was named seven times and his wife was named twice.

As part of the research project, students from the university watched the series with various Germans to record their responses. Some of the responses included:

18-year-old male school student who said, “I used to go to school, I’ve never heard anything about the persecution of the Jews.”

Another 18-year-old male school student said, “In the twelve and a half years that I’ve been at school, I’ve never heard anything about the persecution of the Jews.”

A 20-year-old female typist responded by stating: “Really, really repulsive! Being only 20, I can’t really imagine what it must have been like. However, I have enough healthy, common sense to think about it and wonder how people could be so brutal to other human beings. Animals are treated better than the Jews were. Honestly, it makes you ashamed to be German.”

A proprietor of a bar in West Berlin said, “I’ve always been a Nazi, but now I see what’s happening again!” (During the screening of “Holocaust” his establishment remained virtually empty.)

Council Agenda

The agenda for the Council’s Oct. 10 meeting, as published by Council secretary Robert G. Lorndale, is as follows:

A. Reports from the president, provost, and chairperson of the steering committee.
B. Information report on real estate development.
C. Action on the Report of the Task Force on University Governance.
D. Consideration of a resolution from the Graduate and Professional Student Assembly on consultation in increasing tuition.

GRANTS

$11.8 Million

Research will focus on radiation therapy

The National Cancer Institute (NCI) has awarded an $11.8 million contract to the University and the Fox Chase Cancer Center to jointly conduct a program involving large scale studies of a new type of cancer treatment. This cooperative effort will be one of four similar programs underway in the nation.

Dr. Robert L. Goodman, chairman of the radiation therapy department at the Medical School and at the Center and principal investigator for the program, stated that the joint studies will compare results of a new type of therapy to conventional x-ray therapy over a ten-year period. Approximately 3,500 patients in toto will be involved in the study.

The federally funded program is based on preliminary evidence that neutron beams are more useful than x-rays in eliminating cancer cells lacking oxygen. Since cells on the surface of a tumor receive oxygen through the blood and respond well to conventional x-ray therapy, this type of therapy has proven to be far less effective against oxygen deficient cancer cells.

A unique piece of equipment called a D-T (deuterium-tritium) generator, which was previously developed at the University with NCI funding by Dr. James Brennan, emeritus professor of research radiology, and Dr. Peter Bloch, associate professor of physics in radiation therapy, will be used in the study. The D-T is smaller and less expensive than the cyclotron therapy currently being perfected in three other cancer centers. The D-T will also be able to treat far more patients and thus be able to accumulate more conclusive evidence and data.

To house the new equipment Fox Chase is constructing a $1 million facility beginning in 1980 which will include the present underground radiation therapy unit at the Center’s American Oncologic Hospital.

Goodman emphasized that, unlike x-rays, the new type of therapy will not be suitable for all kinds of cancers even if it proves more effective for certain tumor types. Should results of the studies show that it is indeed superior to x-rays in treating some cancers, however, neutron therapy would become an important technique in the medical world’s fight against cancer.

The University-Fox Chase is the only federally designated comprehensive cancer center in Pennsylvania, New Jersey, and Delaware.
An Interpreter (left) uses sign language during Annenberg Center's production of 'The Tempest' last March.

'Theatre for Deaf' Begins Second Year

For those who love live theater but whose enjoyment of stage performances is limited by their inability to hear, the Annenberg Center will continue its "Hearing Theatre for the Deaf/Awareness for the Hearing" program which began last year.

The Center has been awarded $7000 for the project from a new joint program of the Pennsylvania Council on the Arts and the Public Committee for the Humanities in Pennsylvania.

Under the terms of the grant, two productions will be selected from the Annenberg Center's 1979-80 season and will be accompanied by interpreters of American Sign Language. The program will select two plays with great visual action and clarity of story line.

One performance of each production will be interpreted by signers. The hearing-impaired audience will have assigned seats so that a good sight line can be maintained between interpreter and reader. In conjunction with the performance, special program notes and seminars will be provided. Seminars will also be signed, including questions from the audience.

"Hearing Theatre for the Deaf" is a continuation of a project begun last season when the Annenberg Center attracted a full house to their presentation of LA MAMA E.T.C.'s production of Shakespeare's 'The Tempest' in March of 1979. Many in the audience were hearing-impaired who had been invited to experience the play with the help of signers on stage.

The Annenberg Center is working on this project with Natalie Warshawsky, who in the summer of 1978 organized a sign language interpretation of Shakespeare's 'A Midsummer Night's Dream' for the Theatre in the Courtyard at City Hall. Ms. Warshawsky, a member of the Pennsylvania Council on the Arts advisory committee on Access for Handicapped Persons, approached Marcella Beresin, and Catherine Marshall of the Annenberg Center in the fall of 1978 about organizing the "Hearing Theatre for the Deaf."

Says Ms. Warshawsky: "Sign language can be an art form, similar to mime, that is a way of understanding for those with a hearing loss, and at the same time can be appreciably shared by the hearing audience."

"Hearing Theatre for the Deaf" is another project within the Annenberg Center's Outreach Program.

Preparing for the Pope

The pope's scheduled visit this morning to the Philadelphia Civic Center, near the Penn campus, required a considerable number of overtime hours on the part of the University's security police.

David L. Johnston, director of public safety, said he could not yet estimate the total cost to the University, but that all 50 uniformed security officers worked extra hours.

With 15,000 clergymen and perhaps as many as several hundred thousand spectators expected to be in the vicinity of the Civic Center this morning, Johnston said particular attention had been paid by his staff to securing all University buildings. He had been cooperating with city police and the Secret Service officers throughout the week-long preparation period, he said.

"Our main question," said Johnston, "was, how are we going to protect our campus?"
Elaine Allen, assistant professor of statistics, was appointed senior statistical consultant to the Bureau of Research and Statistics of the Office of Policy and Evaluation Planning of Pennsylvania's Department of Revenue. She will review the state's tax forecasting procedures and implementation.

John W. Carr III, professor of computer science, is lecturing in the Peoples Republic of China for ten weeks this semester on microprocessor applications at the Northwestern Telecommunications Engineering Institute in Xian. He will then move on to Chiao Tong University in Shanghai to lecture on problem solving and artificial intelligence.

David Cossey, former assistant professor of mathematics and computer science at Barrington College, was named director of the Wharton Computer Center. He replaces Daniel Muzyka.

Barbara Franklin, senior fellow in the Public Management Unit at Wharton and director of the National Central Financial Corporation in Lancaster, Pa., was appointed to the Government and Regulatory Affairs Committee of the U.S. Chamber of Commerce.

Arthur E. Humphrey, dean of the School of Engineering and Applied Science and professor of chemical engineering, received the Distinguished Service Award for 1979 of the division of microbial and biochemical technology of the American Chemical Society.

Elinda Kornblith, lecturer in finance, has been elected president of the Philadelphia Women's Political Caucus.

Martha Zabriskie McConnell, associate development officer in charge of fund-raising for the Faculty of Arts and Sciences and coordinator of the Philadelphia campaign of the Program for the Eighties, was chosen to serve as assistant director of athletics for women.

Beryl H. Moorhead, dietetic technician, has joined the professional management of Dining Services as nutritionist of training and systems. She has served as dietetic director for the Saunders House Nursing Home in Overbrook, Pa. since 1977, and she was director of food service in a federal government office building for one year, serving over 3,000 people daily.

Joan O'Leary, R.N., Ed.D., has been named associate administrator for nursing services in health care delivery at the Hospital of the University of Pennsylvania. Her duties include directing HUP's 800 nursing personnel, developing nursing objectives and participating in the establishment of administrative policies regarding nursing. She will also serve as liaison between HUP and the School of Nursing.

Anita Arrow Summers, formerly a research officer and economist from the research department of the Federal Reserve Bank of Philadelphia, has been named associate chairperson of the Public Management Unit of Wharton; she also co-lectures with Professor John Jackson on the political economy of public management.

Gerald Weales, professor of English, was awarded a grant under the Fulbright's Mutual Educational and Cultural Exchange Act to participate in the 1979 Short-Term Lecturer Program. He will lecture on American and European drama at the University of Sri Lanka until November 28.

Sadkey Williams, M.D. has been named associate director for medical affairs of the National Health Care Management Center of the University. Currently an assistant professor of medicine in the section of general medicine, he has been involved in technical assistant programs in cost containment and service delivery management at the Management Center. In his new position he will work closely with the Medical School.

The president of the University of Houston resigned in a huff last month after the board of regents rejected his choice for acting chancellor of the Downtown College Philip G. Hoffman, president of Houston since 1961, had been scheduled to step down next August, but he announced that his resignation was prompted by "a matter of principle — namely the right of a president to successfully recommend" the appointment of interim university officials.

Daniel Hale Williams University, a small black institution in Chicago, has lost its federal student aid for the 1979-80 academic year because the U.S. Government claims it mismanaged federal funds. Further, the government charges that Williams University has exhibited a "consistent pattern of violations" of federal regulations. The government first began looking into problems at the so-called "alternative" school after students there filed a number of complaints.

Scientists and engineers from the University of Illinois will meet this month with Environmental Protection Agency officials to get a fix on the projects they will cooperate on at Illinois' new Advanced Control Technology Laboratory, which is designed to enhance pollution-control technology. The EPA's stake in the project is $1.8 million. Other schools involved in the EPA's effort are the University of Pittsburgh, and Oklahoma, Oklahoma State, and Rice Universities.

The National Science Foundation reports that the number of scientists and engineers employed by American colleges and universities increased three percent between 1977 and 1978. The total number of scientists and engineers employed by institutions of higher education, according to the NSF, was 306,500, of whom 241,000 were employed full-time. Of the grand total, 191,300 were engaged in teaching, 37,100 in research and development, and 17,800 were in other areas of activity. For the third consecutive year, Harvard was the leading employer of full-time scientists and engineers with a total of 3,385. Second was the University of Wisconsin at Madison with 2,965.

Seventy grants totaling $5.3 million were awarded last month by the U.S. Office of Education under the Women's Educational Equity Act Program. The grants are intended to support model programs designed to eliminate sex discrimination, bias, and stereotyping in education. The University of Cincinnati and Benedict College received the two largest grants.

John C. Sawhill, president of New York University, and Edward Allan Frieman, a Princeton University scientist, have been nominated by President Carter to top posts in the Department of Energy. Sawhill, if approved, would become deputy secretary of energy; Frieman was nominated to head the office of energy research.

John V. Bergen, president of the Philadelphia College of Pharmacy and Science, has submitted his resignation, effective Jan. 1, 1980. In announcing his intentions to step down, Bergen said it is a "positive step" for people who are in leadership positions to acknowledge the periodic need for fresh blood at the top.
Volunteer patients with essential hypertension are needed for outpatient studies at the International House. Those interested should call Dr. Karl Engelman, chief of the hypertension section of the Department of Medicine at the University of Pennsylvania, or Martha Hill, R.N., at 662-2641.

The Analysis Center for Evaluation of Energy Modeling and Statics was established this fall in order that faculty and students from areas in statistics, operations research, energy management, and public policy can evaluate energy models and develop methods for evaluating the accuracy of forecasts on energy demand, supply, and distribution. The Center will also support lectures, conferences, and workshops on the role of modeling and statistics in energy analysis. Lawrence Mayer, associate professor of statistics in Wharton and associate professor of public and urban policy in the School of Public and Urban Policy, was appointed director of the new center which is located at 3609 Locust Walk. Its extension is 4582.

Aids to handicapped scientists and college students and a personal consulting service to educational institutions on science education of the handicapped are being offered by the American Association for the Advancement of Science. The AAAS has issued two publications under the NSF-funded program: Directory of Handicapped Scientists and Science for Handicapped Students in Higher Education. The reports are $3 each from the Office of Opportunities in Science, American Association for the Advancement of Science, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036

October 4—October 14

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Study. Those interested should call and a modest honorarium on completing the study. Dr. Karl Engelman, chief of the hypertension section of the Department of Medicine at the University of Pennsylvania, or Martha Hill, R.N., at 662-2641.

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Lecture: The religious studies department and the University Museum sponsor Dr. Moawiyah M. Ibrahim of the antiquities department, Jordan, on Recent Archaeological Discoveries in Jordan in Rainey Auditorium, University Museum at 4 p.m.

Lecture: The Women's Faculty Club holds a session on recollections of its early years delivered by Jean Brownlee, Althea Hotel, Elizabeth Rose, and Dwight Scott in the Faculty Club (third floor, east room) at 4 p.m.

Lecture: The Hillel Foundation features Mr. Philip Hochstein, editor of The Jewish Week on The Jewish Community in Media at Hal 205 S. 3rd Street, at 8:30 p.m.

Lecture: The Italian Studies Center sponsors Dr. Eugene Garfield of the Institute for Scientific Information on Scientific Information: Reflections on an Entrepreneur at 4 p.m. in Room 107 of Smith Hall.

Lecture: The Communications Colloquium features Leon Katz, Eng., chancellor of the Philadelphia Bar Association and Judge Paul N. Chalfin, Court of Common Pleas, Philadelphia, on Should Courtroom Trials Be at 2:30 p.m. Opposing him is the colloquium room of the Annenberg School at 4 p.m.

Lecture: Dr. Jonathan Wilson of Rockefeller University delivers a talk in the Psychology Department Lecture Series in Stieiler Hall, Room B21, 8 p.m. A coffee hour precedes the talk.

Lecture: The Graduate Group presents an Epidemiology Colloquium with Dr. Milton Alter of Temple University. School of Medicine at noon, Room 100, Nursing Education Building.

Lecture: Dr. Gerald Holton of Harvard University speaks in the FAS Lecture Series on a topic concerned with Einstein at 4 p.m. in the Annenberg Auditorium.

Blood Drive: A blood drive will be held in the Harrison House lounge from 1 to 7 p.m.

Sports: Penn meets Princeton in Men's Cross Country at 3 p.m. in New York. Penn plays Brown in Men's Soccer at 8:30 p.m. on Franklin Field. Call Ext. 4747 for information.

Workshop: Morris Arboretum sponsors a one-day class: Make Your Own Paper from 10 a.m. to noon (members $3, non-members $5). Call 247-5777 for information.

Workshop: Children's classes in gymnastics, swimming, fencing, and water ballet begin today in the Gimbel Gymnasium and run for six weeks. For information call Ext. 6102.

Sports: The Levy Tennis Pavilion sponsors a Men's Amateur Singles Tennis Tournament beginning today and running through October 14. Call Ext. 4741 for information. Penn meets Columbia in Tennis at 1:30 p.m. Penn plays on West Chester State in Freshman Tennis on Franklin Field. Penn plays Harvard in Women's Field Hockey at Harvard at noon, Penn competes against Columbia in Men's Soccer at Columbia at 11 a.m., Penn competes in the Navy Corduroyed Sailing Meet at Navy. Call Ext. 6128 for information.

Movie: The University Museum Film Series presents Bergman's The Magic Flute in the Museum's Harrison Admission free.

Seminar: The Rev. Ralph Moore of the Christian Association leads a discussion on Religion: Across the Generations at 6 p.m. in the University Lutheran Church, 37th and Chestnut Streets; supper begins the evening at 5 p.m. Call 387-2885 for information.

Lecture: The history and sociology of science department presents Dr. Eugene Garfield of the Institute for Scientific Information on Scientific Information: Reflections on an Entrepreneur at 4 p.m. in Room 107 of Smith Hall.

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Blood Drive: A blood drive will be held in the Harrison House lounge from 1 to 7 p.m.

Sports: Penn meets Princeton in Men's Cross Country at 3 p.m. in New York. Penn plays Brown in Men's Soccer at 8:30 p.m. on Franklin Field. Penn plays on Immuculata in Women's Volleyball at 4 p.m. at Immuculata.

Workshop: Morris Arboretum sponsors a one-day class: Make Your Own Paper from 10 a.m. to noon (members $3, non-members $5). Call 247-5777 for information.

Sports: Penn takes on Brown in Football at 1:30 p.m. on Franklin Field. Penn competes against Cornell in Freshman Football at 4:30 p.m. at Cornell. Penn plays Cornell in Lightweight Football at 10 a.m. at Cornell. Penn meets Temple in Women's Cross Country at 1 p.m. at Temple. Penn faces off against Brown in Women's Field Hockey at 11 a.m. on Franklin Field. Penn plays Penn State in Women's Tennis at 11 a.m. on the Lott Courts. Penn takes on Navy, Seton Hall, and Loyola in Women's Volleyball at 2 p.m. at Navy. Penn competes in Sailing in the Women's Intersectional Regatta at Yale and the Maine Sloop Elimination Area # 3 at Navy.

Penny Day: Morris Arboretum sponsors guided tours for University alumni, faculty, staff, and students. Admission free.
The following listings are condensed from the personnel office's latest bulletin. Bulletin boards at 13 campus locations list full job descriptions; part-time positions are listed as well. Those interested should call personnel offices for more information. An asterisk (*) before a job title indicates that the department is considering promoting from within.

**Administrative/Professional**

Accountant I (two positions) (a) monitors accounts receivable, processes cash receipts and petty cash accounts (B.A. in accounting, two years' experience in accounting or management); (b) prepares financial statements for federal and state programs, financial records, and reports (B.A. in accounting, business administration, or economics). $10,375-$14,375.

Applications Programmer Analyst II consults with users of systems and programs, analyzes segments/systems for computer operation, develops system flow charts. B.A. in computer science or experience with PL/I or Cobol, IBM 370 RCL, three years' experience in programming concepts, using large operating system. $14,850-$20,550.

Assistant to the Comptroller helps manage payroll accounting and special line accounting interface. B.A. in accounting, three years' experience in accounting or management. $10,375-$14,375.

Assistant Controller of Physical Plant (two positions) assists operating accounting functions and managing personnel. Works closely with building boards, A/C, budget, financial, and statistical course work. Salary to be determined.

Assistant Director of Residential Unit supervises graduate assistants and summer school RA staff work, responsible for creating and printing publications, establishing and implementing orientation program, and counseling and handling disciplinary matters. M.A., two years' experience in supervising residence halls. $10,375-$14,375.

Assistant to the Director curates an exhibition biannually, writes catalog essays, reviews art work, gives gallery lectures. B.A. in art history, two years' experience in art administration. Salary to be determined.

Assistant to the Vice-President for Budget and Finance coordinates office operations, assists in budgeting and personnel matters, prepares reports and presentations. B.A., three to five years' experience in corporate or institutional administrative work and management. Salary to be determined.

Assistant to the Vice-President of Commonwealth Relations helps represent the University's interests to the General Assembly, the Governor's office, civic organizations, the school board (B.S., preference from Penn, teaching, academic administration, and/or administration of student activities experience). Salary to be determined.

Associate Development Officer I performs fund-raising activities, provides support for regional, historical, cultural, and music programs. B.A., three years' fund-raising experience.

Associate Development Officer II (two positions) (a) manages fund-raising program, implements corporate communications projects, prepares major gift appeals (three to five years' experience in public relations or promotional or fund-raising work); (b) manages corporate fund-raising programs, implements communications projects, prepares major gift appeals (three to five years' public relations, promotional, or fund-raising experience).

Associate Development Officer III coordinates fund-raising activities, works with dean on campaign objectives, presents attractive programs to bring in funds. Familiarity with higher education and academic administration work. $24,650-$34,750.

Associate Director handles food service operations, budgets, coordinates menu composition. B.A. or business education, ten years' experience as a unit manager. $14,850-$20,550.

Associate Director of the institute's technical communications, edits scientific documents, procures photographic and printing services. B.A. in English, journalism, or related field, extensive writing and editorial experience, knowledge of scientific and scholarly research writing processes. $14,850-$20,550.

Business Administrator supervises administrative staff (two positions) (a) coordinates department moves, prepares reports. B.A. in business administration, training in accounting and/or bookkeeping, knowledge of University procedures/policies preferred. $10,375-$14,375.

**Clinical Psychologist** works with cancer patients and families, participates in behavioral medicine research, familiarity with methodology and data analysis. $18,122-$27,750.

Controller maintains accounting systems and financial reports, monitors receipts and disbursements. Advanced degree in accounting, five years' experience with financial and administrative duties. Salary to be determined.

Department Head II supervises and operates technical sections. B.A. in science, three years' experience in education. $12,900-$17,850.

Executive Director, University Career Placement Services coordinates funding, implements corporate and institutional administrative work and management. Salary to be determined.

Fiscal EDP Coordinator handles systems planning, designs and research and development to data generated within the organization. B.A. in business administration, experience with budgets, accounting, and data analyses procedures. $12,900-$17,850.

Journalist Recruitment (three positions) (a) assists with biochemical experiments, prepares and purifies membrane components, performs assays and binds them with radioactive material (B.S. in chemistry, biochemistry, or biology, research experience); (b) performs biochemical analyses of sub-cellular fractions of bacteria, researches molecular aspects of bacteria pathogenicity (M.A. in biology or chemistry, two years' experience); (c) New Bolton Center Prepares and executes experiments with eggs, sperm, and embryos (M.S., experience in research on reproductive physiology of the cow); (d) fabricates electrodes, produces and tests microelectrodes for measuring pH, K+, CA2+, and Na+ (B.S. in physics or biochemistry). $10,375-$14,375.

Managing Editor screens articles for interest and style, determines content, gathers research grants, edits scientific documents, procures photographic and printing services. B.A., training in journalism, familiarity with laboratory work. Salary to be determined.

Nurse Practitioner participates in the In-Home Services Programs (in-home meals), provides home care and ancillary service for elderly, B.A. or M.A. in nursing, preferably in community health, experience in community health work and health assessment, delivery management, and referrals. $12,900-$17,850.

Programmer Analyst II designs and develops biomedical computer programs, provides research data analysis. B.A. in computer science; programming experience required. $12,900-$17,850.

Project Director (available until April, 1980) manages department, supervises daily operations, coordinates research and grant objectives. $10,375-$14,375.

Project Manager develops application software. plans network expansion, deals with vendors, servicemen, and Uni-Coll technicians, trains operators, coordinates installation of new equipment, knowledge of applications programming, systems programming, and heavy PL/I and CICS on-line development. $16,122-$22,725.

Research Specialist I (six positions) (a) supervises scanning electron microscopes, vacuum evaporators, and freeze fracture equipment (B.A., knowledge of electron microscope operation and specimen preparation); (b) supervises electron microscopy facilities, ultracytology, microscopy, and darkroom procedures; trains students in EM techniques (B.S., experience with transmission and electron microscopy, students seeing teaching and behavior of dogs in palatability tests, makes statistical analyses and etiological interpretation of results); (c) supervises two electron microscopes, gives preparatory experience to students in electron microscope laboratory; (d) supervises two electron microscopes, students and research on clinical and chemical assays (B.S., five years' experience in biochemistry laboratory); (e) designs and builds equipment, produces cell lines and monoclonal antibodies (tissue culture and biochemistry experience); (f) designs experiments on experimental demyelinating diseases in small animals (B.A., four years' experience in biology or immunology laboratory). $10,375-$14,375.

Research Specialist II (three positions) (a) performs animal research in radiology and nuclear medicine, cares for animals, analyzes data, writes reports (B.S. in science, experience in animal anesthetics, surgery, radiology, and nuclear medicine or computer programming); (b) dissects and isolates tissues, makes biochemical analyses of sub-cellular fractions of bacteria, researches molecular aspects of bacteria pathogenicity (B.A. in science, three years' experience in biochemistry laboratory); (c) performs biochemical analyses of sub-cellular fractions of bacteria, researches molecular aspects of bacteria pathogenicity (B.A., five years' experience in biochemical and physiological methodology). $12,900-$17,850.

Research Specialist III (three positions) (a) manages cultures of blood, spinal fluid, and thymic lymphocytes and mononuclear cells from patients with autoimmune diseases (B.A. in science geared to this position); (b) maintains double bubble, data processing equipment, NMR participants, Varian A-60A NMR Spectrometer (advanced degree in electronics, physics or chemistry or training with five years' in nuclear magnetic resonance spectroscopy). $14,850-$20,550.

Senior Systems Analyst (three positions) (a) creates online data acquisition systems for compatibility with other facilities; prepares programs for colliding beam experiments; consults on physics problems (P.S.D. in physical science, knowledge of Fortran on IBM + DEC, CDC computers and PDP II Macro and Graphics); (b) submits program applications for series/2 assembler and data base applications (B.A., experience with Fortran and IBM equipment); (c) prepares feasibility studies, systems designs, programming specification; trains users. B.A. in science, business, several years' experience in data processing and systems analyses, ability to design one's own work, second language proficiency. $10,375-$14,375.

Staff Dentist (two positions) examines, treats, and prescribes for patients, maintains records and questionnaires, carries out procedures, designs dental hygiene programs and subscriptions, solicits advertisers and promotion media. B.A., training in journalism, familiarity with library science. $20,375-$22,250.

Superintendent -Utilities (two positions) operates and maintains electrical, steam, and chilled water air conditioning and mechanical systems. B.A. in mechanical or electrical engineering. $14,850-$20,550.

**Support Staff**

Accounting Clerk prepares aprons and processes invoices, records, files. Knowledge of accounting entries, logs, ledgers, inventories. $7,375-$9,375.

Administrative Assistant (six positions) (a) supervises office, interprets policies and procedures, handles students and faculty inquiries, obtains course information, advises students, prepares secretarial reports. B.A., one year University counseling, placement, employment; knowledge of federal and state work-study programs regulations; (b) maintains bills and grants sheets, performs office duties (two years' college, office management, bookkeeping, knowledge of University bookkeeping system); (c) New York) performs secretarial duties, maintains bills and grants sheets, performs office duties. $7,375-$9,375.
handles appointments, heavy typing (high school graduate, some college or medical experience, several years’ office experience); (e) implements and maintains system for data entry and personal computer systems; (f) prepares, types, types up forms and reports (high school graduate, experience with University procedures, 60 w.p.m. technical typing); (g) maintains budget, coordinates activities (experience with special projects); (h) serves as Guest Student Directory and alumni directory secretary (typing, experience with University budgets and forms). $7,965-$10,150.

Assistant Director (two positions) (a - New Bolton Center) maintains budget and employee time sheets, buys and leases equipment, schedules farm collection; (b) two years’ college, business and accounting experience, typing. (b) oversees office operations, assists compiling office budget, administers area of work (two years’ work-experience in a department (B.A. or business school experience), familiarity with University procedures, good typing skills). $6,875-$9,100.

Duplicating Machine Operator II operates and maintains mimeograph machine, coordinates data activities, makes keyboard data input on CRT and processing/output (B.A. in biology or chemistry, previous experience with University procedures. 60 w.p.m. technical typing); (b) prepares documents, prepares bibliographies or research materials. B.A. or two years’ college training with equivalent work experience in area of investigation. 50 w.p.m. technical typing). $7,975-$10,150.

Research Bibliographer I reviews assigned topics and abstracts, summarizes information, prepares written and/or statistical form, prepares bibliographies or research materials. B.A. or two years’ college training with equivalent work experience in area of investigation. 50 w.p.m. technical typing). $7,975-$10,150.

Research Bibliographer II serves as a research librarian, maintains subscription records and card catalog, assists in library budget, in research, reforming library techniques, typing skills, business oriented. $6,625-$9,100.

Research Laboratory Technician conducts biological and biochemical research on surfaces of differentiating cells; supervises cell culture facility. Experience in biochemistry or cell culture. $9,650-$12,225.

Research Laboratory Technician I performs endotoxin and cardiovascular monitoring, prepares blood samples. B.S. preferred. $6,875-$10,950.

Research Laboratory Technician II performs routine laboratory analyses, and studies cells. Experience with DEC B/S, two years’ clerical experience, good typing and detail work. $7,975-$10,150.

Research Laboratory Technician III (two positions) (a) makes keyboard data input on CRT and processing/output; (b) maintains, and documents programs for data acquisition, redaction, documents, and instrument control on microcomputer (two years’ experience with University procedures, $6,975-$10,150. $9,275-$11,800.

Project Budget Assistant (New Bolton Center) assists business administrator in completing data and grant reports. Two years’ clerical experience, good typing and attention to detail. $6,975-$9,100.

Psychology Technician I (two positions) (a) operates data acquisition and analysis system and computer operations). $7,975-$10,150.

Psychology Technician II (two positions) (a) operates data acquisition and analysis system and computer operations). $7,975-$10,150.

Resident Medical/Dental/Pharmacy (two positions) (a) prepares sterile media, enzyme assays, radioisotopes, enzyme purification (experience with tissue culture and general laboratory techniques, particularly sterile techniques); (b) operates laboratory, orders supplies, performs analytical work (B.S. in chemistry or biology, experience in biochemical experiments and analytical chemistry); (c) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (d) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (e) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (f) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (g) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (h) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (i) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (j) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (k) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (l) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (m) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (n) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (o) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (p) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture); (q) handles small animals for collection of blood and cells. performs reactions and immunologic procedures (B.S. in biology, experience in cell culture).
Every revolution has its leaders. And one of those leading the revolution in nursing education is Claire M. Fagin, Ph.D., R.N., dean of the School of Nursing.

What is the "revolution", and how is it affecting the education of nursing students? Dr. Fagin, recently elected to the Institute of Medicine of the National Academy of Sciences, thought about the question as she sat at her desk in the new faculty offices in the Nursing Education Building.

"The mission of nurses has not changed," said Dr. Fagin. "Our very roots are in public and community health. Providing care towards the goal of health, and teaching and counseling the individual and family toward self-care and optimal health, have traditionally been seen as part of the generic base of nursing.

"What has changed, what constitutes the emergence of a new order in nursing and in the health care industry, is the way nurses are practicing their chosen mission. Nurses, not nursing, are in a state of transition. The focus of health care is shifting from cure to care as a result of a combination of population and social facts, and nurses, long educated as primary health care providers, are finally coming into their own."

Dr. Fagin talked about the variety of methods nursing is utilizing to bring primary health care into communities. Nurses, she said, are setting up independent practices, and joint practices with physician partners. Increasing numbers of nurses are responding to the popular interest in midwifery by obtaining graduate degrees as nurse midwives. In addition, the role of nurses in hospitals is changing. Team nursing, a longstanding practice in hospitals, is giving way to primary nursing, which allows a nurse to assume responsibility for a small number of patients throughout their stay.

The new trend in nursing education is highly controversial. It gives nurses a broad range of responsibilities that were once limited to doctors.

"A patient's needs are a complex combination of physical, psychological, and social factors," said Dr. Fagin. "A broad undergraduate background is a necessity if we expect nurses to be competent to make the analytical judgments which quality health care requires. We cannot continue to claim that nursing practitioners are the equals of other primary health care providers and yet deny them the educational preparation necessary to function as equals. We cannot continue to admonish our students to become assertive in pursuing their rights and accountable in exercising their responsibilities, and yet subject them to an educational system from which they emerge feeling less educated, less informed, less articulate, and less self-directing than either their clients or other members of the health care team," she said.

Dr. Fagin came to the University two years ago after serving as director of the Health Professions Institute at the Herbert H. Lehman College of the City University of New York. She put her philosophy of nursing into action by recruiting fellow educators who felt as she did.

For Dr. Fagin, the progress at the School of Nursing is a satisfying indication of things to come at Penn and throughout the country.

"For the first time in history we're seeing nurses come into their own as vital providers of health care," she said. "Many physicians are showing signs of realizing that, far from being competitors, nurses can offer a valuable complementary relationship. Our pilot joint practice at 40th St. is only one example of nurses showing what they can do in community health service."

The University Square Health Care Practice, composed of a nurse on the faculty of the School of Nursing at Penn and a physician from Presbyterian-University of Pennsylvania Medical Center, is a pilot project funded by private donors to serve the community of West Philadelphia. Both the doctor and the nurse see and treat patients.

"What I find the most encouraging development is the attitude of our nursing students," said Dr. Fagin. "They've chosen nursing as a career because they are clear about the problems and the opportunities nursing can offer them. The high number of our students for whom nursing is a second career is evidence of this. And these students are assertive, vocal advocates who will help nursing take its place among the health professions. We have a long way to go before the public recognizes the full extent of the contribution nurses can make as providers of health care. But we are getting there."

October 15 Deadline

Tenured faculty members whose projected retirement age is 68 to 70 are reminded that retirement is possible under the Voluntary Faculty Early Retirement Plan at age 65. A faculty member who wishes to participate in this program must submit a written notice to the dean of his or her school by October 15 of the year in which the faculty member plans to retire. Under this program faculty members may receive supplemental early retirement benefits of a base supplement equal to 27 percent of the salary base appropriate to the school of the retiree in the last year of full-time employment, plus an additional early planning supplement of 2 percent of the same salary base for each year beyond the requisite one year of advance commitment to early retirement, up to a maximum of 6 percent.

For further information, contact Douglas R. Dickson, director of personnel planning, Ext. 6093.

The Arena Section

Almanac is seeking contributions of 500-1,000 words for the Arena section. Appropriate topics are those which in some way touch on the life of the general academic community.