

Almanac

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Eleven Guggenheim Awards

Eleven faculty members at the University of Pennsylvania are among 342 scholars, scientists and artists nationwide who have been awarded Guggenheim Fellowships to conduct research during the 1974-75 academic year.

With its total of 11 this year, Pennsylvania tied for third place nationally with Harvard; Berkeley took 17 awards and Columbia 15. There were 2668 applicants nationwide for the fellowships which are awarded by the John Simon Guggenheim Memorial Foundation.

The awards are made on the basis of demonstrated accomplishment in the past and strong promise for the future. The Penn faculty members who won them and their fields of research are:

Dr. Edwin Burmeister, Professor of Economics—the economics of capital and time;

Dr. James W. Cornman, Professor of Philosophy—a theory of empirical knowledge;

Dr. Diana Crane, Associate Professor of Sociology—studies in the sociology of culture;

Dr. Solomon D. Erulkar, Professor of Pharmacology—experimental studies in neurophysiology;

Dr. Werner L. Gundersheimer, Professor of History—the despots and Florence in the 15th century;

Dr. John S. Leigh, Jr., Assistant Professor of Physical Biochemistry (Johnson Foundation)—experimental studies on the molecular mechanisms of muscle contraction;

Dr. Robert P. Perry, Professor of Biophysics—experimental studies in molecular biology;

Dr. Robert E. Ricklefs, Associate Professor of Biology—studies in evolutionary ecology of birds;

Dr. Martin E. P. Seligman, Associate Professor of Psychology—experimental studies on the mechanism of phobias;

Dr. Humphrey Tonkin, Associate Professor of English and Vice Provost for Undergraduate Studies—a study of the structure of Spenser's *Faerie Queen*;

Dr. Robert Y. Turner, Associate Professor of English—Shakespeare's late plays and Jacobean tragicomedy.

Also awarded a Guggenheim Fellowship was Stephen Carr, an architect with Arrowstreet, Inc., of Cambridge, Mass., who is currently Visiting Professor of Urban Design in the Graduate School of Fine Arts here.

Lindback Awards

Eight faculty members will receive the 1974 Lindback Awards for distinguished teaching at Hey Day ceremonies this Friday. The awards of \$500 each are given by the Christian R. and Mary F. Lindback Foundation. A committee of ten students and faculty members nominates the candidates and the final selection is made at Provost's Staff Conference. Receiving the award this year are:

Dr. Joseph R. Ashman, Associate Professor of Anatomy, Dental School;

Dr. Domingo M. Aviado, Professor of Pharmacology, Medical School;

Dr. Paul Barron, Assistant Professor of Business Law;

Dr. Lawrence Eisenberg, Associate Professor of Electrical Engineering;

Dr. Alan M. Kelly, Associate Professor of Pathology, School of Veterinary Medicine;

Dr. Donna K. McCurdy, Associate Professor of Medicine;

Dr. Gerald Prince, Associate Professor of Romance Languages;

Dr. Paul Soven, Associate Professor of Physics.

The new Lindback recipients will now join ninety previous winners in the University's Lindback Society, founded last fall to encourage improvement in teaching quality.

Human Genetics Center

A new Human Genetics Center has been established at the University, funded by a five-year, \$2 million grant from the National Institute of General Medical Sciences. Dr. Edward J. Stemmler, acting dean of the School of Medicine, has announced.

Dr. William J. Mellman, chairman of the School's human genetics department, will head the new Center. It is the ninth in the country to be supported by NIH under a federal program to accelerate research on heritable diseases.

The Center will be located in the Medical School and will involve a number of professionals within a six-block radius: physicians from HUP and Children's Hospital, biologists and veterinarians from west of campus and sociologists and lawyers north of the School.

There will be an expanded teaching program for medical students (basic and clinical courses, relationship of genetic problems to law and life sciences, among others); seminars and clinical conferences for faculty; and for undergraduates, several courses on biological and social aspects of genetics.

The Center's funding will support research by investigators and clinicians in human genetics, microbiology, biochemistry, anatomy, pediatrics, medicine, and obstetrics/gynecology, in the School of Medicine. It will also support work in biology, pediatrics, veterinary medicine's clinical studies, and the sociology department of the Law School.

On the Center's Advisory Committee will be Dr. Mellman as chairman; Alexander M. Capron of the Law School;

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Dr. David Cornfeld of pediatrics; Dr. James J. Ferguson of biochemistry; Dr. Renee Fox of sociology; Dr. Joseph Gots of microbiology; Dr. Howard Holtzer of anatomy; Dr. Donald F. Patterson of veterinary medicine and human genetics; Dr. David T. Rowlands of pathology and Dr. Richard H. Schwartz of ob/gyn.

Professional staff who will be directly concerned with patient care will include Dr. Elaine Zackai of pediatrics and human genetics; Dr. Fred Gilbert, of human genetics; Eileen Rawnsley, R.N., as clinical coordinator; Dr. Mellman and Dr. Schwartz.

SENATE

At its spring meeting April 17, the Faculty Senate adopted the grievance procedure published here April 2, with the addition of one safeguard: when the dossier of another faculty member in the grievant's department is to be examined, the person will be notified.

It also passed with slight alteration section #1 of the changes in tenure rules published April 9; the action limits the achievement of tenure by inadvertence. Remaining items on tenure were under debate when time ran out.

FACULTY CLUB ELECTIONS

The nominating committee of the Faculty Club has produced the following list of nominees for 1974-75:

Board of Governors (five to be elected to two-year terms)

Adelaide M. Delluva, Acting Chairman, Animal Biology

Manuel Doxer, Business Manager of the College

Peter Freyd, Professor of Mathematics

Joan Gotwals, Assistant Director of Libraries

Alvin H. Johnson, Associate Professor of Music

Olivia Richardson, Coordinator of Internal Communications (Dent)

John J. Sayen, Associate Professor of Cardiopathology

S. Reid Warren, Special Advisor to the Dean, CEAS

Charles F. Wilde, Chairman, Histology & Embryology (Dent)

House Committee (three to be elected to one-year terms)

George Kidd Jr., Director of Auxiliary Services

Ellen Kohler, Registrar and Lecturer, Classical Archaeology

James L. Malone, Assistant to the Dean, CEAS

Allen L. Martineau, Director of Annual Giving, Development

David Ness, Assistant Professor of Management, Wharton

Gerald L. Robinson, Executive Director of Personnel Services

All nominees have agreed to serve if elected. Copies of this list have been mailed to members of the Club, along with a call for additional nominations by petition. According to the by-laws (Article 3.03) nominating petitions on behalf of other individuals signed by at least five regular members may be submitted to the Secretary, Richard DeGennaro, Director of Libraries, at any time within two weeks after the date of mailing of this list. Petitions should be accompanied by a signed statement indicating the candidate's willingness to serve if elected. This deadline is Friday, May 3. Ballots will be mailed shortly thereafter. Ballots will contain biographical data and statements by those candidates who wish to make them. Election results will be announced at the annual meeting to be held sometime during the week of May 13.

Technically we are in violation of the by-laws, which require that the list of nominees and the call for nominations by petition be mailed five weeks prior to the annual meeting. Five weeks following April 19 takes us to May 24, by which time many of us will have left the campus for the summer. As President, I take full responsibility for this.

—John S. de Cani

COUNCIL

HOUSTON HALL

At Council April 10, a resolution to fund the renovation of Houston Hall was on the floor when a quorum call put an end to action. The Student Affairs Committee had submitted its resolution to raise the General Fee for all students by \$10, subject to an equal contribution by all faculty and staff either through direct levy or a University contribution in their names. The Steering Committee moved to amend by substituting the motion below, and that substitution was made before the quorum call:

THAT this Council approve the increase in the General Fee for all full-time students of the University in the amount of \$10.00 and all part-time students in the amount of \$5.00, the funds so collected to be used toward the funding of the Houston Hall renovation project. Furthermore,

THAT all faculty members and members of the administrative staff should be solicited to make a contribution toward the funding of the Houston Hall renovation project.

GRADUATE EDUCATION

Last week *Almanac* carried the text of a resolution setting up a Task Force on Graduate Education. The resolution referred to some "above paragraphs" summarizing the subject matter of the new Task Force. Those paragraphs said:

It is recommended that, at a minimum, the Task Force consider the following issues and items of concern and be instructed, as part of its charge, to:

1. Formulate a list of priorities for the new Vice Provost [for Graduate Studies and Research] concerning the administration and improvement of graduate studies at Pennsylvania.

2. Examine the Carnegie Commission reports on graduate education and their possible implications for Pennsylvania.

3. Examine quality control standards for the graduate groups (*i.e.*, admissions and Ph.D. requirements, placement of graduate students, hiring and promotion of faculty, and academic standards for research efforts) and recommend mechanisms for their establishment and enforcement.

4. Examine the policies governing graduate student employment and fellowship distribution (*e.g.*, systematic teaching duties and salary ranges for graduate student instructors), clarify the relationship of employment responsibilities to doctoral programs, and recommend mechanisms for establishing standards and enforcing policies.

5. Articulate the impact of new and existing undergraduate programs, such as the University Scholars program outlined in the Development Commission's report, upon the resources of the graduate programs (*e.g.*, requirements for additional teaching personnel to handle changes in undergraduate curriculum).

6. Consider the adequacy of the University's present support for noncurricular aspects of graduate student life. Study the present formula for subvention of graduate and professional student activities from General Fee payments. Recommend policy regarding University housing for graduate students.

7. Establish formalized, ongoing, and effective communication channels between graduate students, graduate faculty, and administrators to insure that graduate students have meaningful input into decisions that affect them.

8. Analyze the impact on graduate education of the University's internal structure and plans for reorganization.

9. Examine the current structure and content of Ph.D. programs and suggest alternative directions for innovation and development of those programs.

10. Examine the administrative structure, authority, and function of the Graduate School of Arts & Sciences and the Graduate Advisory Council with the intent of increasing their effectiveness in the (1) evaluation of graduate programs, (2) encouragement of innovative degree programs and courses of study, and (3) reorganization of current graduate groups and programs.

Educational Technology: An Overview

by Charles F. Hoban

Educational technology is widely regarded as a high priority concern. In itself, it is not new. The push comes with the development of and "potential" for education in electronic information processing—television, audio and video tapes and cassettes, computers, etc. These are only a part of educational technology—an important part but not always and sometimes only minimally required.

A major thrust in educational technology has come in recent years from at least two national commissions and at least one congressional committee.* The question before us, as before other academic communities, is what shall we do about it all?

First, a Definition

Educational technology is a loose term referring to uses both in administrative housekeeping and in instruction (not to mention research). On the housekeeping side, computerization of course registration, grades, student records, or room scheduling, library inventory, and circulation involve technology applied to education.

Instructional technology is less accepted, less understood, and more controversial, but it is here that the thrust is felt and action being advocated.

Generally, instructional technology is associated with "teaching and learning". An oversimple and convenient concept of teaching has been what a teacher does, face-to-face or through mediation, in front of students in large or small groups, or in one-to-one confrontation. Sir Denis Brogan summed up the shortcomings of this concept some 15 years ago in a Pensacola newspaper. If memory serves correctly, he said that in American education it is assumed that *everything that must be learned must be taught*. This assumption is the unexamined, unarticulated, deep-rooted source of our teaching-learning concept and of the aura of sanctity that enshrines it.

*The Commission on Instructional Technology, established under the Department of Health, Education and Welfare, diligently studied the subject and produced two hefty volumes (1970, 1971). The Carnegie Commission on Higher Education was no less diligent but graciously more modest in the size of its aggressive report, *The Fourth Revolution* (1972). Probably the most penetrating and lively pro-and-con report on the subject is the 368-page, fine-print publication of "Hearings before the Select Subcommittee on Education of the Committee on Education and Labor of the House of Representatives" (1972).—C.F.H.

As good a synonym as any for instructional technology is the word technique, and as good a definition as any is that specified by the Carnegie Commission on Higher Education to be accepted by the end of the decade by institutions of higher learning: "The enrichment and improvement of the conditions under which human beings learn and teach achieved through the creative and systematic organization of resources, physical arrangements, media, and methods." It is sufficiently broad to include both *machine-dependent* and *machine-independent* instruction. It contains most of the appropriate terms. It offends almost nobody. And it avoids the notion of learning as a dependent function of (formal) teaching.

Instructional Technology at Penn

Instructional technology has been around in the University of Pennsylvania for quite awhile. This is no place to catalog its beginnings and developments, but only to cite some familiar examples, suggest their significance, and indicate the overall pattern of their development.

On the non-hardware (machine-independent) side, interesting experimental programs are in progress. How well they are working and will work out remain to be seen, as is appropriate at this stage in their development.

Among these programs is that of thematic studies. This involves the restructuring of the focus of study from the discipline-by-discipline approach to a more *gestalt*, or theme movement, or problem approach in which several disciplines are drawn on as relevant. Some possible outcomes of the thematic studies program are lifetime interests, career decisions, and greater in-depth involvement in the disciplines essential to dealing with the theme or problem.

Innovations in housing intended to provide students with experience in living together, to enrich themselves intellectually, culturally, and socially, and to facilitate closer, less formal association and communication between students and faculty members are in progress in variety. At least five "houses" are involved, and floors in other houses are also active in this experiment. In addition to "life-of-the-mind" enrichment, these housing programs provide opportunities for students to cope with the crowded living of modern life, and to exercise initiative, cooperation, and decision-making in community activities.

As a bridge between hardware and non-hardware technology, ducts for cables have been built into all new housing, and

underground ducts are being installed to interconnect the University Science Center with at least ten campus locations.

On the machine-dependent side of instructional technology, Television Seminar, a creation of the College of General Studies, has been televising college-credit courses over WCAU-TV for the past fifteen years or so. In addition to those enrolled for college credit, it has a regular viewing audience—before 7 a.m.—conservatively estimated at 4000, give or take a thousand. Like other efforts of its kind, Television Seminar is a forerunner of the Open University. Granted, it offers far fewer courses, but it gratuitously offers openness to the larger community for college-level experiences.

A much more recent innovation is the outreach activity of the College of Engineering and Applied Science in telecasting two-way communication graduate courses directly into the industrial plants of the area for the continuing education of their professional personnel. Getting this experimental program into operation meant overcoming difficult engineering and facilities problems and enlisting the interest and cooperation of industrial management. The sophisticated TV classroom in the Moore School used in this program is easily adaptable to on-campus teaching with TV.

The vigorous (but misnamed) Language Laboratory has a well-equipped studio with television taping and playback equipment, tape recorders, film projectors, and other simple and sophisticated hardware for university-wide use. It also provides an advisory service on what and what not to use. Exploitation of its TV taping facilities has been made for instance, by the psychology department. Lectures delivered to an assembled large class are separately taped, and incidentally revised in the process to meet the demands of the medium. The tapes are intended for students who either missed the live lectures or want to review them. Great care went into the planning and evaluation of this experiment.

Significant uses of instructional technology, such as closed-circuit television, individualized carrels with earphones and other hardware, etc., at the School of Medicine, School of Dental Medicine, and other schools and departments have also been in progress for some time. Discussion of them is omitted only because of the need for brevity and selectivity.

All these various activities follow the history of instructional technology throughout the country—individually inspired, spotty, uncoordinated in the broad sense, generally not fully thought through, and only too seldom adequately evaluated.

The Case for Instructional Technology

The case for more-or-less hardware oriented instructional technology does not rest on values demonstrated by solid research, but on the "potential" of the media and the hardware. Communication technology exists, goes the underlying argument; it has changed the nature of human awareness, of politics, of the power to influence. *Ipsa facto*, it can change education/instruction, presumably for the better. The research story is sad, not because the values of instructional technology do not exist, but because researchers have been looking for them in the wrong places, in the wrong way, and with wrong criteria. Conventional strategies and techniques of evaluation research in education are in growing disrepute and in need of drastic reconsideration.

Much of the affirmative case for instructional technology made by the Carnegie Commission on Higher Education rests on the kinds of "potentials", the kinds of savings in faculty manpower, and the kinds of changes in roles of teachers successively claimed for motion pictures, television, programmed instruction, etc. For example, the Ford Foundation's extensive promotion of televised instruction to large classes was based on a "manpower shortage" of teachers,

and on the additional concept that savings in teacher time could and would be used for more individualized instruction, better preparation for daily teaching, student counseling, etc. It failed, and its airborne TV experiment in the rural midwest was a fiasco. Furthermore, if programmed instruction has not actually failed, at least it has been grossly modified in concept and structure.

The arguments advanced for instructional technology today remain much the same: more teaching of more students with fewer teachers, better use of teacher time, better preparation, and so on.

A case may very well rest on these claims, disregarding the cost of equipment and facilities and the need for more technical personnel to manage, maintain, and operate it. Failures noted may have arisen from faulty situational assumptions and inept executions.

Nevertheless, a persuasive case can be made for instructional technology. Selective use of a wide variety of modern media not only relieves the monotony of instruction for instructor and students, but provides a wider range of experiences with major psychic consequences. McLuhan's doctrine that "the medium is the message" is more than a glib epigram. Much remains to be done in teasing out its implications for instruction, and in elaborating it to include format and treatment. But it is uncomfortable for education to be one of the few institutions to regard McLuhan with indifference, or worse.

Convenience of time and place of access of instruction to students is not a trivial matter. Classes scheduled at specific hours, hither and yon around the campus, set the day's schedule for student and teacher, often with much waste of time. Also, reviewing and catching up on sessions missed for illness or other reasons are important to students. And as an aside, the ivory tower yellows and hardens and grows more remote from reality when the means and media used almost everywhere else find little respectable place in organized instruction.

A compelling case for instructional technology is its effect on the performance of teachers. When one hears or sees his

WORK IN PROGRESS

The Development Commission in January 1973 devoted a section to Penn needs in audiovisual resources, and elsewhere recommended increased attention to teaching performance. Since that time, some implementation steps have been taken:

- On the basis of an interim report by Jerome Rauch's task force on audiovisual resources, and other reports by the Planning Office, the Trustees last fall committed \$600,000 to provide underground ducts from the Computer Center to multiple campus locations—initially for computer linkage and B&G monitoring, but eventually for closed-circuit TV and for security monitoring.
- Provost Eliot Stellar named Dr. Burton S. Rosner to head a new, short-term task force on educational technology to integrate the Rauch report findings with other current initiatives in instructional methods.
- Council approved the Dwyer report calling for a Teaching Center, to begin modestly with University funds and to grow as campus need and outside support emerge. Its main thrust will be to make available to any member of the University community certain resources to improve skills associated with teaching: self-study via videotape; updating techniques for advising and evaluating students; information on existing instructional aids here. The Center will also offer advice to those who want to evaluate teaching performance.
- The nearly 100 Penn faculty members who have been honored for teaching excellence in recent years have formed the Lindback Society, which will concern itself with methods of improving the quality of teaching.

"er's" and "ah's," the annoying redundancy of his statements, the flatness of his delivery, and the distracting mannerisms of his behavior, stance, and even dress, he cringes. Yet, these are not unknown in normal teaching performance.

Over and over again, it has been observed and reported that taping lessons results in much longer and better teacher preparation, substantial compression of time required for presentation, and noticeable improvement in the quality of the message itself. There really isn't much point in talking loftily and vaguely about "quality education" unless deliberate attention, time, and effort are systematically devoted to it. That is what the experiments in campus housing are all about, but they leave the formal curriculum untouched except by contrast.

Obstacles to Instructional Technology

The real obstacles to the widespread development of instructional technology are more subtle than fear of loss of teaching positions. (This fear would exist anyway, given the financial crunch.)

Emphasis on faculty research and lack of incentives for creativity and excellence of teaching militate strongly against changes in teaching roles and improved teaching. Obsolete labels are another handicap. The label "audiovisual resources" is restrictive and obsolete, and the label "language laboratory" even more so. Labels can and sometimes do act like walls to constrict thinking and acting.

Moreover, faculty members tend to be prima donnas by definition, habit, and perhaps necessity. They (we) don't take kindly to the suggestion that there may be other and better ways of balancing and doing what they (we) are doing.

Then, too, important basic concepts are often neglected or not fully developed. One is the systems concept. Simply put, a system is an integrated arrangement of parts with a common purpose, such that malfunction or failure of any one part degrades the system as a whole. When systems are mentioned in instructional technology, it is generally with reference to subsystems or microsystems of instruction.

Central to the problem of all systems is the difficulty of determining the missions they are to serve. Unfortunately, they are regarded as beyond the scope of instructional technology, whereas determining missions is in fact prerequisite to it. Only recently have colleges and universities confronted the monumental task of defining and articulating their aims, objectives, and end products. Without this, instructional technology will continue as an *ad hoc* affair, and colleges and universities will face even deeper troubles in clarifying their identities and, consequently, in remaining vital and solvent.

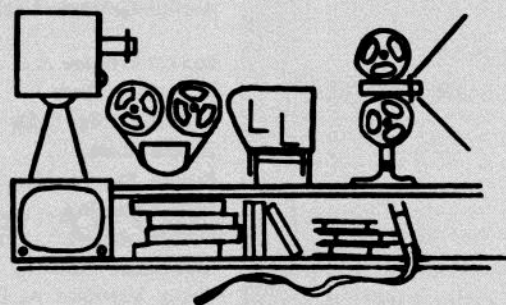
A related concept is that of instructional design and development. It is possibly the most significant of all developments in instructional technology, relatively young as it is. Basically, instructional design and development is a research and development process of long duration, requiring highly trained interdisciplinary teams of creative individuals strongly disposed to question "the prevailing orthodoxy."

The Decision to Decide

A decision to make a policy decision between alternatives is clearly in order for colleges and universities: will instructional technology continue to be a matter of individual and team initiative, with all its comings and goings; or, will it become a flexible, all-university concern, the responsibility for which is placed at the highest possible echelon of the administration?

To make this decision, much homework is involved. To quote a dear, prematurely dead friend: "The world belongs to them who do their homework."

Dr. Hoban is Professor of Communications at the Annenberg School.



THE LANGUAGE LAB

What Professor Hoban describes as the "vigorous but misnamed" Language Laboratory is so named because it was set up by the College of Arts and Sciences in 1958 to assist the various language departments of the College. It still gives first priority to the language function, but when language faculty and students are not occupying the space and staff full time, the services are shared with others in the University.

Director Eric Van Merkensteijn's staff helps with filming and recording lectures or campus events, and runs an associate staff program to advise and instruct faculty or teaching fellows whose departments use A/V resources extensively. The Lab's librarians maintain an ever-expanding catalog of audio and video tapes, including not only language studies, but also literature, folklore and music, special series and course lectures. The library has a tape-search service as well.

The Language Laboratory is equipped for group and individual instruction. A brief list of its services:

- Tutorial rooms with audio facilities, including stereo, where users can listen to tapes or transfer material to their own cassettes.
 - Student-faculty work areas for showing or preparing films, slides for classes or research projects.
 - Electronic Classroom equipped with projectors for slides or 16MM film, tape recorders, etc., can be used for small groups and has been especially useful in orientation and training sessions. It has a three-camera system for video-taping, instant playback, and editing previously taped material.
 - Video Tape Recorder System, which anyone can learn to use, consisting of a camera, microphone, playback monitor and video tape recorder. The VTR is increasingly used in behavior studies (for example, the marriage counselor who has his clients tape their sessions and then analyzes the playback with them), for helping practice teachers, and for making documentaries.
 - Production Studios for high-quality recording, mixing and editing tapes and conducting research in audio-visual areas.
 - Equipment Loan Service for academic use includes all kinds of film, recording and sound equipment for use outside the lab. It is available by reservation, in most cases with no charge.
 - Center for Services to the Handicapped. This new program enlists volunteer readers for the blind and provides individual help for handicapped students. People interested in offering their services, or who need it, should contact Mr. Van Merkensteijn. Ext. 4947.
 - Through its cassette program, the language lab sells cassette tapes or provides copies for a small fee.
 - The Language Laboratory Recording Fund, supported by Friends of the Language Laboratory and from revenues from sales of recordings, finances production and distribution of resource material not easily available on tape. Through an exchange program, the Lab has a collection of some 65 languages not commercially available.
- The Language Laboratory is open to any member of the University community. Hours: M-Th, 8:30 a.m.-11 p.m.; Fri., 8:30 a.m.-5 p.m.; Sat., 10 a.m.-4 p.m.; Sun., 4 p.m.-11 p.m.

SUPPLEMENT TO FACULTY-STAFF DIRECTORY

The names here represent additions or changes in the 1973-74 Faculty and Staff Directory. Previous supplements were published in Almanac February 5 and March 5. Changes in telephone numbers or addresses should be sent to Mrs. Ruth Iskoe at the Telephone Service, Ext. 8684.

Achs Murray J, Dr	8744/5	Res Spec, EE, 126 Moore/D2, 1001 City Av, Penn Wynne
Autilio-Gambetti Lucila, Dr . . .	6545	Assoc Neurol, 414 John Pav, 624 Rittenhouse Rd, Wayne *447 John Pav/G2
Bakker William A	8661	Staff Mech Eng, B&G, P-221 FBA/I6, 8100 Lindbergh Blvd
Bedford William L	8661	Chf Eng, B&G, P-221 FBA/I6, 316 Sandy Bank Rd, Media
Benson George S, Dr	3-2893	Postdoc Fel Urol, HUP/G1, 105 McIntosh Rd, Cherry Hill, NJ
Brown, Roma	5809	Chr Med Tech Dept. 114 SAMP/H2, 7720 "C" Stenton Av
Brown, Sandra, Mrs	5809	Instr Med Tech, 115 SAMP/H2, 257 S 24th
Brown Sterling	6136	Asst Football Coach, WeH/E7, 21 Lawrence Rd, Audubon
Bush Barbara L	5249	Sec Wh Pub Pol Fel Prog, 107 Vance/CS, 3924 Pine
Calabretta Anthony	7202	Job Ord Cont Asst, B&G, P-221 FBA/I6, 1944 S Hicks
Cerny Veronica A, Dr	6437	Assoc Anat Animal Biol, M103 Vet/H1, 1021 Montrose
Chen Robert C, Dr	7745	Asst Prof Comp & Info Sci, 274 Moore/D2, 4701 Pine
Douglass Adair H, Mrs	5806	Adm Asst to Dean SAMP, SAMP/H2, 2013 Locust
Frangipane Leo G Jr, Dr . . .	3-4000	Asst Instr Surg, HUP/G1, 5440 Vicaris
Grace Kathy A	5248	Dir Wh Pub Pol Fel Prog, 206 Vance, 130 Spruce *107 Vance/CS
Green Deborah	7202	Pers & Time Clk, B&G, P-221 FBA/I6, 4220 Baltimore Av
Heiberger Richard M, Dr . . .	6808	Asst Prof Stat & O/R, E-249 DH/CC, 4701 Pine
Heron Eileen S	8411/6730	Adm Asst Reg Sci & Peace Sci, 130 McNeil/CR, 4816 Warrington Av
Jurskis Liutas K	8661	Asst Dir Eng & Wk Cont, B&G, P-221 FBA/I6, 408 Arch, Delran, NJ
Kasserman Sharon G	4983	Asst Ed Jour of Consumer Res, W-253 DH, 286-9 Echelon Rd, Voorhees, NJ *E-204 DH/CC
Kellogg Ruth Ann, Mrs	7202	Sec to Dir, B&G, P-221 FBA/I6, 4209 Chester Av
Kohn Michael C, Dr	8744/5	Res Spec, EE, 127 Moore/D2, 700 Ardmore Av, Ardmore
Lasko Martin	8661	Drstm, B&G, P-221 FBA/I6, 326 S 15th
Lebram Stephen P	28-0'	Bus Adm Div Family Stud, Rm 210, 4025 Chestnut/T7, 139 W Tulpehocken
Leventhal Ruth, Dr	5793	Asst Prof Med Tech, 215 SAMP/H2, 4 Arthurs Ct, Plymouth Mtg
	5564	Predoc Res Fel Parasit Pathobiol, 368E Vet/H1
London Jack, Dr	8744/5	Res Spec, EE, 132 Moore/D2, 6334 N 10th
Mackie Julius A, Dr	3-2012	Prof Surg, 1000 Ravdin/G1, 207 Ladbroke Rd, Bryn Mawr
McCombs Peter R, Dr	3-4000	Asst Instr Surg, HUP/G1, 528 Custis Rd, Glenside
McManus Jeanne, Mrs	7208	Serv Job Disp, B&G, P-221 FBA/I6, 3526 New Queen
Moore W Terrell, Dr	8744/5	Postdoc Fel, EE, 132 Moore/D2, 33 Preston Rd, Media
Morse Peter H, Dr	662-8152	Asst Prof Ophthal, 141 Scheie Inst, 114 Anton Rd, Wynnewood
Pasternack Eric	5725	Grad Stud Geol, 102 Hayden/D4
Phifer John, Dr	8744/5	Comp Tech, EE, 126 Moore/D2, 4625 Cedar
Rabii Sohrab, Dr	8294	Assoc Prof EE, 358 Moore/D2, 402 Weadley Rd, King of Prussia
Ramsden Elsa, Dr	5808	Assoc Prof Phys Ther, 211 SAMP/H2, 1045 70th Av
Reed George H, Dr	4974	Asst Prof Biophys, A-606 Rich/G4, 632 Woodland Dr, Havertown
Sampey Charles	7204	Mgr Hsekpg, B&G, P-221 FBA/I6, 5425 Valles Av, Riverdale, NY
Schwegman Cletus W, Dr . . .	3-2038	Prof Surg & Dir Tumor Cl, 1000 Ravdin/G1, 1000 Centennial Rd, Narberth
Shumate George R, Dr	3-4000	Asst Instr Surg, HUP/G1, Oak Hill Est, Hagys Ford Rd, Penn Valley
Ward Phyllis	382-6680	Adm Asst Div Family Study, Rm 20, 4025 Chestnut/T7, 4823 Larchwood Av
Wertz Richard D, Dr	8696	Dir Univ Quad, 112 Bodine/G9, 220 E Mermaid La #148
Williams Linwood	8661	Master Sched, B&G, P-221 FBA/I6, 110 S Alden
Young Marie, Mrs	7253	Collec Asst Treas Off, 4th Fl, FB/I6, 600 Penn, Yeadon

ADDITIONS TO THE YELLOW PAGES

American Society for Eighteenth-Century Studies		
Exec Sec: Paul J. Korshin	209 BeH/D1	7348
Journal of Consumer Research		
Editor: Ronald E Frank	W-253 DH/CC	4983
Asst Ed: Sharon G Kasserman		
Wharton Public Policy Fellowship Program		
Dir: Kathy A Grace	206 Vance/CS	5248
Sec: Barbara Bush	107 Vance/CS	5249

CITY WAGE TAX ON RETIREMENT PLAN CONTRIBUTIONS

The City of Philadelphia has advised the University that, as of January 1, 1974, amounts withheld from salaries under reduction agreements are to be considered subject to City Wage Tax.

The University received a ruling from the City in 1952 which specifically exempted such reductions from taxation. The City recently reversed its policy in a case involving another local institution.

Acting on the advice of its legal counsel, the University will begin withholding City Wage Tax on all contributions to tax sheltered retirement plans, retroactive to January 1, 1974. For those who currently participate in TIAA-CREF and Pennsylvania Annuity programs, the retroactive adjustments will be reflected in deductions from salary at the end of April.

REMINDER: INA OFFICE CLOSES MAY 1

INA will close its service office at 133 S. 36th St. on May 1. Inquiries after that date should be directed to the service office, Curtis Building, 625 Walnut St., Philadelphia. The EV 2-2800 phone number may still be used.

Policyholders are reminded that INA will not automatically renew policies purchased through its discount program. Coverage under current policies ends July 15, 1974.

A list of INA agents is available in the Personnel Benefits Office, 116 F.B. Policyholders who have not already done so are urged to make arrangements with agents of their own choice to assure continuation of their insurance coverage.

—James J. Keller, Director
Personnel Administrative Services

OPENINGS

The following listings are taken from the Personnel Office's weekly bulletins and appear in ALMANAC several days after they are first made available via bulletin boards and interoffice mail. Dates in parentheses refer to publication of full job description in ALMANAC. Those interested should contact Personnel Services, Ext. 7285, for an interview appointment. Inquiries by present employees concerning job openings are treated confidentially.

The University of Pennsylvania is an equal opportunity employer. Qualified candidates who have completed at least six months of service in their current positions will be given consideration for promotion to open positions.

Where qualifications for a position are described in terms of formal education or training, significant prior experience in the same field may be substituted.

ADMINISTRATIVE/PROFESSIONAL (A-1)

ACCOUNTANT II (3/19/74).
ASSISTANT COMPTROLLER (3/19/74).
ASSISTANT DIRECTOR, STUDENT ACTIVITIES (4/9/74).
ASSOCIATE DEVELOPMENT OFFICER II (1/8/74).
BUSINESS ADMINISTRATOR I responsible for budget preparation, personnel procedures and transactions. Records payroll, purchasing, coordinates service requests, keeps statistical records and routine correspondence. *Qualifications:* College degree in accounting and/or business administration or equivalent experience. At least three years' administration experience in budgets, contract or clinic administration desirable. \$7,750-\$9,625-\$11,500.
COORDINATOR FOR SPECIAL SUMMER PROGRAMS (4/2/74).
DEPARTMENTAL DEVELOPMENT COORDINATOR (4/2/74).
DEPARTMENT HEAD III, medical library (3/26/74).
ELECTRICAL ENGINEER responsible for technical operation of Graduate Engineering TV System. Supervises repair and main-

tenance and performs systems measurements. Keeps operation logs, makes improvements in system performance, aids in design and installation of additional facilities. *Qualifications:* B.S. in electrical engineering or electrical technology. At least three years' experience in TV systems, cameras, switches and TV transmitters. Must have first class Radio Telephone License. Experience as amateur radio operator desirable. \$11,800-\$14,700 (midpoint).

MANAGER, ENGINEERING & BUILDING SVCS. (2/19/74).

OFFICE MANAGER for technical dept. Responsible for office staff and supervision of work flow. Prepares surveys, reports, coordinates scheduling for department, purchases, organizes and prepares for departmental and special meetings and conferences, is involved in documentation for proposals and department policies. *Qualifications:* College degree and at least three years' office experience. Ability to supervise, write and organize work procedures. University experience preferred. \$7,750-\$9,625-\$11,500.

RESEARCH COORDINATOR to supervise and coordinate data-gathering on research studying the relationships between urbanization and fertility. Works with principal investigators on sample selection, design of questionnaire, analysis of data and writing of reports. Some supervision of research staff. *Qualifications:* Managerial, computer, demographic and sociological training. Ph.D. or near Ph.D. in demography and/or sociology. Managerial training (MBA preferred), research experience in the study of fertility and publications in this area desirable. \$10,250-\$12,750-\$15,225.

RESEARCH SPECIALIST II. Does research in enzyme purification, protein and nucleic acid chemistry. *Qualifications:* Ph.D. in biochemistry and at least one year postdoctoral experience, preferably with enzymes involved in nucleic and acid metabolism. \$10,250-\$12,750 (midpoint).

RESEARCH SPECIALIST IV, electrical engineering, to do analysis of technical data and preparation of detailed reports summarizing previous work and giving results of analysis conducted with faculty members. *Qualifications:* Experience with electrical and electronic circuits and broad background in electrical communications. At least B.S.E.E. and ten years' direct professional experience in specialty field. \$15,625-\$19,375-\$23,100 (Part-time, 50% of salary).

RESIDENCE UNIT DIRECTOR (3/5/74).

STAFF NURSE (3/5/74).

SYSTEMS & PROGRAMMING STAFF TECHNICIAN (4/9/74).

SUPPORT STAFF (A-3)

ADMINISTRATIVE ASSISTANT I, administrative office (3/5/74).
ADMINISTRATIVE ASSISTANT I, placement service (4/9/74).
ADMINISTRATIVE ASSISTANT I, Wharton (4/16/74).
ADMINISTRATIVE ASSISTANT II, engineering (3/26/74).
DELIVERY CLERK, campus office (3/5/74).
ELECTRON MICROSCOPE TECHNICIAN II (2/5/74).
ELECTRONIC TECHNICIAN/ENGINEER (2/19/74).
MACHINIST I, research area on campus (1/8/74).
MAIL CARRIER, campus mail service (4/9/74).
MECHANICAL ESTIMATOR (1/15/74).
MEDICAL RECORDS ASSISTANT, Graduate Hospital (4/9/74).
MEDICAL SECRETARY (4) (3/19/74).
PROGRAMMER IV (4/9/74).
PROJECT BUDGET ASSISTANT, college business office (4/9/74).
PSYCHOLOGY TECHNICIAN I (4/16/74).
RECORDER, business office on campus (4/2/74).
RESEARCH BIBLIOGRAPHER I, II, medicine (4/16/74).
RESEARCH LABORATORY TECHNICIAN II, III (3/26/74).
RESEARCH LABORATORY TECHNICIAN III (4/2/74).
RESIDENCE HALL CLERK (2) (4/16/74).
SECRETARY I, business office on campus (4/2/74).
SECRETARY II (10), III (5) (1/8/74).
TECHNICAL SECRETARY, medical school (2/12/74).

PART-TIME (A-4)

CLERK II (4/9/74).
SECRETARY I (4/2/74).
TECHNICAL SECRETARY (4/2/74).
PENN TEMPS: temporary assignments for people who have excellent typing and, in some cases, shorthand or dictaphone. Call Valerie Sandillo, Ext. 7285; weekdays, 9-11, 130 F.B.

H.E.W. ON CAMPUS: APRIL 26, 29, 30

Officials of the Department of Health, Education and Welfare will make a site visit to the University Monday and Tuesday, April 29 and 30, to review the University's affirmative action program with the President, Provost, and others.

On the Friday before, the H.E.W. team will be available to individuals and groups from the University community. To schedule meetings with them, faculty and staff should call the campus Office of Equal Opportunity, Ext. 6993 or 6994. Meetings may be arranged in the E.O. office conference room at Sergeant Hall or in other locations of the caller's choosing. University E.O. Administrator James H. Robinson said.

THINGS TO DO

LECTURES

Chile. Harald Edelstam, until last December Sweden's ambassador to Chile, talks about his experiences there during the September coup, 285 McNeil, April 25, 1 p.m. Sponsored by the Anspach Institute. Ambassador Edelstam speaks at 7:30 p.m. Thursday evening at Hopkinson Hall, International House. Sponsored by Connaissance and U.S. Committee for Justice to Latin American Political Prisoners.

Ishmael Reed discusses black poetry and reads from his work at the final Bethune-Fanon lecture. B-6 Stiteler, April 26, 4 p.m.

Fifteenth International Conference on *Aerospace, Environmental and International Law and Trade*, the Hon. Harold Berger, former judge, Philadelphia Common Pleas Court, chairman. Topics this year include law of communications satellites and outer-space and undersea exploration. Alumni Hall, Towne, April 26, 10 a.m.

Symposium in Honor of David M. Robb: lectures by former students of Professor Robb, who will retire this year after 35 years as a member of the history of art department. *Some Fifteenth-Century Italian Notions about When and Where the Annunciation Happened*, Samuel Y. Edgerton, Boston University; *The Symbolism of the Seilern Triptych*, Barbara G. Lane, Rutgers; *One More Theory Regarding Dürer's "Melancholia" and "St. Jerome in his Study"*, Clifton Olds, University of Michigan; and *Anti-Christ Imagery in English Apocalypse Manuscripts*, Jessie Poesch, Newcomb College, Tulane. B-1 Fine Arts, April 27, 10 a.m. Professor Robb reminisces about 1939-1974 at 2:30 that afternoon.

COHR Seminar: *Discussion of Polymorphs and Periodontal Disease (II)* with Dr. William McArthur, professor of pathology here. 234 Levy, April 30, noon.

Not actually a lecture, but open to faculty and staff is the *Phi Beta Kappa initiation* May 1, 4:30 p.m. in 200 CH; 109 student members will be initiated.

ARTS & ENTERTAINMENT

Penn Contemporary Players, Richard Wernick, director. Works by Chou Wen-Chung; Harrison Birtwhistle and Richard Brodhead. Mary Anne Ballard directs the Collegium Musicum in Rameau's *Thetis* and Marin Marais's *Tableau of a Gallbladder Operation*. Prince Theatre, April 24, 8:30 p.m. Tickets free at door, first-come basis.

Piano Recital by College senior Donald Ruggieri to benefit Cancer Research Center of the Silverstein Pavilion. Prince Theatre, April 26, 7:30 p.m. Tickets: \$2, Annenberg Center box office or at Houston Hall. Sponsored by Campus Chest.

The Janosik Dancers of Temple University in a concert of Polish music and dance. Museum auditorium, April 27, 8 p.m. Tickets: \$3.50, Houston Hall. Those interested in attending folk dance workshops that afternoon should telephone MI 9-5819. Sponsored by the Museum's ethnic dance program.

Philarte Quartet: Beethoven's Quartet op. 59 no. 3; Haydn's Quartet op. 20, no. 3; and Dvorak's Quintet in G. Prince Theatre, April 29, 8:30 p.m.

Tribute to Johann Sebastian Bach. Last of this year's Museum Concert Series, the annual Bach concert features Mme. Agi Jambor, piano; Deborah Carter, flute; and Herbert Light, violin, with the Museum String Orchestra, directed by William Smith. Museum, April 28, 2:30 p.m.

Third Festival of Films by Women: *Olympia Part II* (Leni Riefensthal, 1936); *Catch of the Season* (Mary Field, 1937); *Escape, Spook Sport* (Mary Ellen Bute, 1940-41); *Meshes of the Afternoon* (Maya Deren, 1943). Studio Theatre, April 26, 7:15 and 9:45 p.m. Admission free this week.

Short Eyes, by Miguel Pinero. New York Shakespeare Festival production directed by Marvin Felix Camillio. Zellerbach Theatre, Monday-Saturday through May 4, 8 p.m.; matinees Wednesday and Saturday, 2:30 p.m. Tickets: Annenberg Center box office.

University Hospital Antiques Show. Opens today, runs through Saturday at 103rd Engineers Armory, 33rd St. north of Market. Hours: April 23, 24, 26, noon-10 p.m.; April 25, noon-4 p.m.; April 27, 10 a.m.-3 p.m. See *Almanac* April 16, for information on exhibits, tours, etc.

AMERICAN SOCIETY FOR 18TH-CENTURY STUDIES

The Society's fifth annual meeting will be held here April 25-27, chaired by Dr. Paul Korshin of the English department. The 1732 version of Handel's *Acis and Galatea* is a highlight April 26 at 8 p.m. in the Museum's Harrison Auditorium, by Pennsylvania Pro Musica under Dr. Frank Zimmerman, professor of music here. Plenary sessions, each with several papers on less specialized aspects of eighteenth-century culture, are also open to the public; all except the last below are at Annenberg Auditorium:

Taste and the Arts in the Eighteenth Century, Paul Henry Lang, professor of music emeritus at Columbia, chairman. April 25, 9 a.m.-noon.

A.S.W. Rosenbach Fellowship in Bibliography. Three papers on "Literacy and the Reading Public in the Eighteenth Century," Dr. Korshin, chairman. April 25, 2-5 p.m.

French Rural Society before the Revolution, Dr. Alfred J. Rieber, professor of history, Penn, chairman. April 26, 10 a.m.-noon.

Women in Eighteenth-Century Culture, Patricia Meyer Spacks, professor of English, Wellesley, chairwoman. April 26, 2-5 p.m.

The City in the Eighteenth Century, Donald J. Olsen, professor of history, Vassar, chairman. April 27, 9 a.m.-noon.

The State of Scholarship and Instruction in Eighteenth-Century Studies, Donald J. Greene, professor of English, USC, chairman. 102 Chemistry Labs, April 27, 1:30-4:30 p.m.

Additional program information: Dr. Korshin, Ext. 7348.

AT THE WOMEN'S CENTER

Financial advisor Janet Lindsley will lead a seminar and answer questions on "Sheltering Dollars from Taxes and Inflation" on May 1 from noon until about 1:30 p.m. Women who have already responded to the announcement about the seminar (*Almanac*, April 2) are included in the sign-up list; others should telephone the Women's Center, Ext. 8611.

Center coordinator Sharon Grossman asks anyone interested in forming a consciousness-raising group for single mothers to contact the Center.

A-3 ASSEMBLY: MEETING, NOMINATIONS

Assistant Vice President Richard T. Paumen, director of University Management Information Systems, will speak on "Computers and How They Affect Us" at the A-3 Assembly's general meeting Thursday at 1 p.m. in the Ivy Room, Houston Hall. Anyone interested is invited to attend.

May 3 is the deadline for nominations of candidates for spokesman, steering committee (two members) and coordinating committee (11 members) of the A-3 Assembly. Elections will be held May 23. Nominations should be sent to Virginia Hill, 421 Franklin Building. Complete details about open positions appeared in the March A-3 newsletter; telephone Virginia Hill, Ext. 6171, for a copy.

ALMANAC: 515 Franklin Building (16) Ext. 5274
Editor Karen C. Gaines
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