Almanac

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Five from Three Equals One

A single Executive Vice President will take on five operations formerly scattered among three vice presidents, and the nominee for the job is Conrail's former board chairman Edward G. Jordan, 51.

His name will go to the Trustees October 23, and he is expected to take office November 15 heading:

Operational Services Financial Control and Strategy

Personnel Relations Government Relations Communications

The one remaining nonacademic vice-presidential area, development, will remain separate and report directly to President Sheldon Hackney. At the press conference introducing Mr. Jordan last week the president emphasized, in response to query, that the provost remains chief officer after the president. "This is an academic institution and the academic mission is central." But to have fewer people reporting directly to the president is "better for me and for the University," while a growing need for cost efficiency and resource development calls for such an "unusual amount and kind" of experience as Mr. Jordan's.

After a long career in which he moved from marketing and financial posts in national corporations to chairman and chief executive officer of Consolidated Rail Corporation (Conrail), Mr. Jordan was named dean of Cornell University's business school last year. He began commuting to Ithaca January I to prepare for the formal transition July I, but last month asked Cornell's president for permission to withdraw when family illness prevented the final move from Gladwyne. Having made a conscious



Ed Jordan at Penn

choice to join academia, "I am especially grateful for a 'resumed opportunity' at Penn," Mr. Jordan said. "Most of us are lucky to have one shot at the brass ring, and I got two." (More on the Jordan appointment in a future issue.)

Splitting the E.O. Council

The former Council on Equal Opportunity is being divided into two committees, one a faculty-led policy/advisory group and the other a body of affirmative action officers with day-to-day implementation tasks.

The old Council's school affirmative action officers will make up the new task-oriented Affirmative Action Officers Committee, to be chaired by Davida Ramey as head of the Affirmative Action Office. It will be charged with training, developing procedures and practices, and monitoring hiring and compliance among the University's separate units.

Former E.O. Council members who are not affirmative action officers will be invited, along with other faculty, staff and students, serve on the new Committee on Affirmative Action. A faculty member will probably chair that committee, President Hackney said. It will be advisory to the president and provost and will have broader monitoring functions that include critique of policies and goals.

"I expect that by differentiating the policy and administrative functions this way we will be better equipped both to implement affirmative action and to improve our goals, plans and overall performance," the president concluded.

Six Goals for Penn in 1981-82 — and Beyond

The six priorities for Penn that were developed over the summer in meetings with deans and others have been summed up in a Working Paper (pp. 3-6) that will lead to more detailed work plans by the end of the calendar year, as six committees set to work on (1) minority faculty and student presence, (2) undergraduate education, (3) graduate Ph.D. education, (4) educational outreach, (5) research capacity, and (6) ties with the city.

President Sheldon Hackney will chair the work group on the city, Provost Thomas Ehrlich undergraduate education, and Dr. Louis A. Girifalco minority faculty and students. Other chairs and members are to be announced.

Meanwhile, two new administrative actions that relate to problems discussed in the Working Paper:

Minority Presence: Dr. Houston F. Baker has been named special advisor to the president and the provost, to advise on a range of undertakings that have been started over the years and "to help ensure that those undertakings are implemented with all possible speed," Dr. Hackney said. First undertaking: Dr. Baker will chair a search committee for a new faculty member who in addition to normal teaching and scholarly activities will become the first Master of DuBois House. The committee, to be named, will seek a teacher-scholar with an interest in the House, unrestricted as to field. The committee will then work with the appropriate department on a recommendation for appointment, with funding for the addon position provided by the Provost's Office.

FAS Computing: As an "initial step" toward solving FAS's share of the computer-capacity problems outlined in the Working Paper (page 5), an FAS Computing Center will be created at DRL, with a time-sharing computer linked to some 80 terminals throughout the campus. The system is designed to be "user friendly," for multiple student-user needs, but with software packages effective for research computing.

First priority will be given to undergraduate and graduate instructional needs, then to their research computing and to faculty research computing. Access by faculty for nonfunded research will be limited, but the IBM 1341 already at DRL will be dedicated to needs associated to sponsored research as soon as the FAS Center is in operation — projected as January 1982.

Up to 25 percent of the new capability may be available for non-FAS users on a use-charge schedule to be worked out this fall. Within FAS, allocation of funds will be through the associate dean of computing.

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SPEAKING OUT-

On the Ralph Smith Case

The following letter was released by the President to Almanac and to The Daily Pennsylvanian, where it appeared on the editorial page Wednesday, September 17:

(Sent to Dean James O. Freedman)

I am sorry that the article in the Daily Pennsylvanian about the Ralph Smith case made my respect for the position of the Law School faculty seem equivocal. Such is not the case. I suppose that this is yet another lesson for me in the dangers of trying to make subtle distinctions about a complex issue in a hurried interview with a reporter. Had the paper printed all of the questions and answers in their natural sequence, there would be no room for misunderstanding. Perhaps it will help to clarify my position if I state here as briefly as possible what I tried to communicate to the reporter.

Having a high regard for Ralph Smith as a person and as a citizen of the University, a regard that I knew was shared by many in the Law faculty and elsewhere, I hoped at the outset of my awareness of the case that he would be awarded tenure. When the Law faculty decided not to recommend him for tenure, the Acting Provost and I felt that the case important enough that the Provost Staff Conference should review it. Subsequently, the Acting Provost and I met with all of the available tenured members of the Law faculty to discuss the case at great length.

Re: Classes During Inauguration

During my own review of the record, and after our conversation with the faculty, I became convinced that appropriate procedures were followed, that the judgment of the Law faculty was properly grounded in professional evaluations of Ralph Smith's scholarship, teaching and service, and indeed that the School had been exceptionally conscientious in making these evaluations. It was clear the faculty had weighed Ralph Smith's potential value to the University community, aside from his teaching and writing.

Therefore, I concluded that none of these factors could justify a reversal of the Law faculty's decision. -Sheldon Hackney

Response from D.P.

On behalf of The Daily Pennsylvanian, Executive Editor Andrew Kirtzman refers readers to his column, "Compounding the Smith Mistake" on the editorial page September 17, and excerpts three of its sentences:

- 1. "The faculty may not have violated rules in its handling of the matter, but the relevant issue is whether or not he agreed with the school's judgment.'
- 2. "In fact, the statements [quoted in the D.P. 9/15] tell of a president with a decidedly different judgment from that of the faculty.
- 3. "The newspaper was made the scapegoat, when in actuality it had accurately, and fairly, reported what he had said."

—Thomas Ehrlich, Provost

Planning/Budget Committee

The membership of the new Academic Planning and Budget Committee was announced this week by President Hackney, with one-year appointments for administrative and student members. The nine faculty members' initial terms vary so that three-year terms can eventually be staggered.

Provost Tom Ehrlich will be an ex-officio member and will chair the committee.

Administrative members for 1981-82 are Dr. Thomas Langfitt, vice president for health affairs and acting vice president for finance and administration; and Edward Jordan, executive vice president-designate of the University (above). The faculty component and its members' terms:

Three-year terms:

Dr. James Emery, professor of decision sciences

- Dr. Daniel D. Perlmutter, professor of chemical engineering
- Dr. Rosemary A. Stevens, professor and chairman, history and sociology of science

Two-vear terms:

Dr. June Axinn, professor of social work

- Dr. David DeLaura, professor of English
- Dr. Benjamin F. Hammond, professor and chairman, microbology (Dent)

One-year terms:

Dr. Ralph D. Amado, professor of physics

- Dr. Robert E. Davies, Benjamin Franklin, Professor of Molecular Biology (Vet)
- Dr. Oliver E. Williamson, William F. Day Professor of Economics, Social Science, Law and Public Policy

There are two students, each with a nonvoting alternate:

Undergraduate: Marc Feigen, Coll '83;

Alternate: Charles Rich, Coll '82

Graduate/Professional: Vanessa Morenzi, Dent '83;

Alternate: Paul Kelly, Wh '82

p.m. on Friday, October 23rd. **Honorary Degree Nominations: October 23**

The University Council Committee on Honorary Degrees welcomes suggestions for recipients of honorary degrees for Commencement on May 17, 1982. Nominations (including background biographical information) should be submitted in writing to any member of the committee, or to Connie Hays, Office of the Secretary, 121 College Hall/CO. The deadline is October 23.

In order to give students every opportunity to participate in the activities connected with the Inauguration of

President Sheldon Hackney, I will be grateful if faculty members do not schedule examinations or assigned

work to be turned in at classes meeting between 2 and 5 p.m on Thursday, October 22nd and 10 a.m. and 1

Committee members include: Jack E. Reece, chairperson, 207 College Hall/CO; Elizabeth Flower, 307 Logan Hall/CN; Karen Goss, 4400 Spruce Street, #A-5, Philadelphia, PA 19104; G. Malcolm Laws, 119 Bennett Hall/DI; Laura Johnston Lee, 3701 Locust Walk/C3; Monica L. Lorick, 608 High Rise South/BB; Philip Rieff, 458 McNeil/CR; Robert J. Rutman, 148 Vet/HI; Truman G. Schnabel, 1 Gibson, HUP/GI; Eliot Stellar, 243 Anat-Chem/G3; S. Reid Warren, Jr., 201 Moore/D2; Marvin Wolfgang, 289 McNeil/CR.

OF RECORD



Policy Regarding Acceptance of Conditional Gifts

President Sheldon Hackney records the adoption of the following policy, effective immediately.

- 1. All proposals for gifts to the University, including endowments and similar agreements, will be processed by the Development Office.
- 2. In the event a proposed gift to the University is conditional, the conditions must be in writing. The Vice President for Development will notify the President of all substantial conditional gifts and all other gifts containing conditions that might be construed to violate University policies. The President will then determine, as a requirement for University acceptance, that the conditions would not violate University policy, including recognized principles of academic freedom. If the President has doubts in that regard, he will seek the advice of the chair of the Senate Committee on Academic Freedom and Responsibility, who will consult with the chair of the Senate.
- 3. The chairs of the Senate and the Senate Committee on Academic Freedom and Responsibility may inspect the terms of any final agreement. Other members of the University community may, as needed, make requests in writing to the Vice President for Development to see the conditions of such final agreements.

Death of Dr. Faul

The death of Dr. Henry Faul, professor of geology, was reported at presstime; details, including plans for a campus memorial service, will appear in next week's issue.

Training Sessions: September 28, 29

The Personnel Office's Clerical Skills Upgrading Program will begin Monday, September 28, and the Business Communications Program starts Tuesday, September 29; Ext. 3429 for information and to reserve space.



The University of Pennsylvania's journal of record and opinion is published Tuesdays during the academic year and as needed during summer and holiday breaks. Guidelines for readers and contributors are available on request.

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To the University Community:

During the summer we began a planning process aimed at analyzing some of the most pressing problems facing the University. This process was designed to develop options for meeting these problems and to initiate a broad discussion of the issues involved.

This year the process will focus on six areas of concern. The following working paper describes these briefly and also outlines an approach that will help link budget preparation with policy options. The six areas do not, of course, cover all University-wide concerns; in the next several years, we expect the process to concentrate upon additional areas and problems.

During the autumn these six areas will be considered by six working groups of deans and University officials. The option papers that they prepare will then be considered in the spring by the new Academic Planning and Budget Committee. We also expect a campus-wide discussion of the educational issues involved. That discussion will be vital to the University's plans for the coming decade.

Sheldon Hackney Thomas Ehrlich

Strategic Planning: Issues and Objectives

A Working Paper September 21, 1981

Introduction

Throughout its history, the University of Pennsylvania has reviewed and revised its educational programs. Since the Second World War, these efforts have helped transform the University from a local institution into one of America's most selective universities. The campus has been rebuilt, the faculty and student body broadened, and the University's research base strengthened as well as extended. Our undergraduate programs have been recast and improved, while our professional programs have remained nationally preeminent; our Ph.D. programs have produced more scholars and teachers than in any other period of the University's history. We have just completed our most successful fund-raising campaign, acquiring substantial new monies for endowments and educational programs.

More important than any of these changes, however, has been our constancy of purpose and approach. This institution is and will remain One University, a concept eloquently expressed by the Development Commission in its 1973 report.

The concept of *One University* is based on the conclusion that our greatest potential strength and uniqueness lies both in our historic linkage of professional education with the liberal arts and sciences, and in our contemporary advantage of the close physical proximity of our schools on one campus. The key to the philosophy underlying the concept is the thought that the University of Pennsylvania should be an institution which sees life whole. To see life whole means to be concerned with the past, the present and the future, to see root causes of the earth and man, and to see the condition itself both in its obvious and in its more subtle and immanent characteristics.

In pursuit of this vision, we must continue to ask what is special about the University of Pennsylvania. Who is it we serve? Do we

have a shared sense of commitment as well as educational philosophy? What is our responsibility to our faculty, staff, students, to society? How can we best build on our strengths to foster opportunities despite the uncertainties of the 1980s?

The planning agenda that grows out of these concerns will help define Pennsylvania's aspirations for the coming decade. As in the past, much of the University's development will be evolutionary; yet planning can make an important difference, if the planning process itself engages the interest and imagination of the entire University community. After consultation with the deans of all the schools, and discussions with other members of the University community, we have selected six general topics to give focus to the planning process this year.

- 1. Minority faculty and students.
- 2. Undergraduate education.
- 3. Graduate Ph.D. education.
- 4. Educational outreach.
- 5. Research capacity.
- 6. Ties with the city of Philadelphia.

Though obviously not the University's only areas of long-range concern, these general planning priorities for 1981-82 should serve as a point of departure for more detailed discussion with faculty and students. Each school, department, center, and program should conduct its own review and then plan accordingly, taking into account University priorities as well as its own sense of future challenges and opportunities. We believe, however, that these six broad areas should be addressed first as part of a continuing review of the University's plans and purposes.

(Continued on page 4)

1. Minority Faculty and Students

The most immediate of our six tasks is to increase substantially the number of minority faculty and students on campus. In 1973, the Development Commission defined the importance of having a significant black presence within our community:

Our black programs present a very important opportunity for the University to accomplish a number of significant goals: 1) to tap the enormous talent pool that blacks represent as students, faculty, and administration; 2) to meet the educational challenge of providing programs which will help black students to utilize their opportunities at Pennsylvania to full advantage; and 3) to meet the even greater challenge of creating the kind of University community in which black participation will become an integral part and which will attract the best black students and faculty for us.

No less important is our commitment to recruit Hispanics and other minorities. The most important of the procedural steps recommended by the Commission—the development of a formal affirmative action plan and the appointment of affirmative action officers in each of the schools—have been implemented. The Office of Undergraduate Admissions has increased its efforts to attract qualified minority students, as have the individual schools. There has been a renewed effort to recruit minority graduate students as well. Yet, while the University has made measurable progress toward a realization of its stated goals, our overall record has been disappointing. As noted by the 1977 Task Force on Black Presence, the momentum created by the Development Commission's pledge has largely dissipated, thus postponing the achievement of goals vital to the University's educational mission. Now is the time to renew the University's pledge and to ensure implementation on a school-by-school basis.

The task will not be an easy one and calls for a concerted effort from the entire University community. This fall each school will be asked to develop a well-defined strategy for recruiting minority faculty and students, based on revised numerical targets for each year over the next five years. Those strategies should begin with two basic questions.

- What steps should the University take to extend its search for minority faculty and students?
- How best can the University develop the kind of intellectual and cultural environment that will attract and retain minority faculty and students?

The minority recruiting programs of other instituion both within and outside the Ivy Group should be examined and, when appropriate, emulated. For example, the University's School of Engineering and Applied Science, in collaboration with other engineering institutions, has developed an effective talent search program which, through early identification of gifted minority students, encourages their proper preparation for collegiate work. Similar talent search programs could be developed by our other undergraduate and professional schools. We also should remember that our most effective recruiters are our own students; the University must continue its efforts to provide minority students with successful educational experiences. Finally, the University must take care that changes in federal student financial assistance programs do not inadvertently reduce minority student enrollment.

2. Undergraduate Education

Over the last decade, undergraduate education at Pennsylvania has benefited from critical examination and change. The University has significantly strengthened the arts and sciences, while the faculties have initiated curriculum reforms, creating new interdisciplinary majors and programs, and developing new links among the disciplines and the schools of the University. More undergraduates are now applying to Pennsylvania than at any time in its history; and their quality, as measured by SAT Achievement Test scores and average class rank, has improved despite a substantial increase in the size of the freshman class.

Yet problems remain. There will be fewer traditional-aged students to draw from—particularly along the Eastern seaboard—and less federal support for student financial aid. Pennsylvania's challenge in the face of these trends is to remain an institution of choice. We must retain our selectivity, teaching those students who will benefit most from the education we offer; yet we must also be open to new groups of students. In the 1980s competition for the country's best undergraduates is likely to be dominated by the approximately fifty colleges and universities which traditionally have attracted the most qualified students. Many of these institutions derive their personalities from their undergraduate programs. Indeed, the quality of the undergraduate experience offered by these institutions is frequently essential to their public reputations.

For Pennsylvania to preserve and strengthen its standing as a university of choice, we must continue to assign a special priority to undergraduate education. As an independent institution, we have the freedom to ensure that the quality of our university will be reflected in the intellectual reach of the undergraduate curriculum and our faculty's commitment to undergraduate instruction.

The growing links among our undergraduate schools, as well as the need to bring coordination and prominence to undergraduate instruction, suggest that now may be the moment to make undergraduate education at Pennsylvania more cohesive. During this year, the Faculty of Arts and Sciences will review freshman education. Their findings and proposals may serve as the basis for a more general inquiry into educational requirements and experiences at the University. At the same time, we must ask of our professional schools a special commitment to undergraduate education. Indeed, many of our professional school faculty have a sustained interest in the liberal arts, just as many arts and sciences faculty have explored the social context in which the professions have thrived as well as changed. The mutual interests of our faculty and students, reinforced by the physical proximity of our separate schools and professions, could make Pennsylvania the one university in which the interests and traditions of the liberal arts and the professions join to create truly exceptional opportunities for gifted undergraduates.

These two strands—the strengthening of Pennsylvania's standing as an undergraduate institution of choice and the possibility of new educational ventures joining the liberal arts and the professions—should give focus to our planning for undergraduate education. Several basic questions can serve as a point of departure.

- What should be the general goal of undergraduate education at Pennsylvania?
- What type and quality of students are we attracting, and can or should this be altered?
- What are the best means for making our education most effective in such matters as teaching styles, course sizes, staffing policies, vertical or horizontal integration of programs?
- To what extent should undergraduates in different schools share common academic experiences?
- What can we learn from our experiences with college houses, freshman seminars, the University Scholars programs, and thematic studies?

3. Graduate Education: the Ph.D.

The problems of graduate education today are largely the result of its rapid expansion in the 1960s, followed in the 1970s by an equally rapid withdrawal of federal support for Ph.D. training in the arts and sciences. One consequence has been an ambivalence about Ph.D. education within the University, an ambivalence exacerbated by rising tuitions and a poor job market for new Ph.Ds in some disciplines.

Our first task is to reaffirm the importance of graduate education. It is a prime educational mission of the University to respond to the long-term national need for scholars, teachers, and professionals. Strong graduate programs play an indispensable role in attracting faculty of the first rank. It is the presence, moreover, of a lively, self-confident graduate student body that makes possible new knowledge and that preserves the standards and traditions of scholarly inquiry. Starting in 1986 and continuing through the 1990s, there will be a surge in faculty retirements. Where will the professors of tomorrow come from if Pennsylvania, and leading institutions

like ours, cannot attract to scholarly careers some of the brightest undergraduates in the country as well as from abroad? Who will supply the basic research and advanced education the country will require through the balance of this century and into the next, if America's premier universities abandon their programs of Ph.D. instuction? We must, therefore, carefully evaluate the scale and scope of graduate education at the University. We must also recognize that if the national pool of qualified students dwindles, some of the University's graduate groups may fail to attract enough qualified students to form a critical core in the laboratory and the seminar.

- To what extent should availability of jobs determine the number of students or the allocation of funding?
- What type of support can we offer to those Ph.D. programs, particularly in the humanities and social sciences, which are threatened by the erosion in population, interest, jobs, and financial aid?
- In order to maintain a critical core of programs and students, how much should the University invest in Ph.D. fellowships and over how long a period?
- How should the University determine the scale of Ph.D. education—how many graduate groups and graduate students?
- How can we strengthen the links among the University's separate Ph.D. programs?

4. Research Capacity

One of the distinguishing characteristics of this university is its status as an internationally respected research institution. During the 1980s our research capacity will require careful planning in response to the growing cost and complexity of the research itself, shifts in federal priorities and funding patterns, and new competition from private industry. In adapting to these changes, Pennsylvania will continue to rely on the entrepreneurial energy of the faculty to assist in defining the scale and scope of University research. Traditionally, the maintenance of the University's research infrastructure has remained the responsibility of individual schools, departments, laboratories, and institutes. The linking of research programs across schools has been largely informal, reflecting the shared interests of faculty and students. The central administration's role has been, and should remain, an enabling one; we have an obligation to make certain that resources are invested wisely, and that the University's scholarly climate encourages individual as well as group effort. We also need to maintain a balance in the University's research interests; despite dwindling national support, we must reinforce the importance of humanistic discourse and social inquiry. This year, we propose to focus on three issues of immediate concern.

a) Research Concentrations. To preserve the excellence of its research, the University must build on existing strengths, bringing together faculty from a variety of schools and disciplines. For example, the University might bring greater focus to its international interests by concentrating on a limited number of geographic areas or by organizing such efforts thematically, thus melding the interests of several different schools and programs. Before proceeding, however, we must ask two basic questions.

- Is it desirable to define research concentrations linking the interests of different schools and individual faculty?
- What procedures, formal or informal, could be adopted to define such research concentrations?
- b) Computing. Computing at the University poses similar questions of concept and management. Currently those who need access to computers must budget the necessary funds on their own. Many have argued that computing plays too minor a role in the education of most undergraduates and many of our graduate and professional students. As a first step toward remedying this deficiency, we are in the process of acquiring a new timesharing system, including a campus-wide network of eighty terminals largely dedicated to instructional computing. The key questions then become;
 - Should computing once again become a central responsibility and resource? At what cost? With what organizational structure?

- Should the University discourage the proliferation of minicomputer centers? Or will the advent of relatively low-cost microcomputers allow each department precisely the equipment it needs?
- c) Biomedical research. Increasingly, universities are being asked by their principal funders to improve the efficiency of their research enterprises. Given the escalating cost of basic research, who will pay for the new equipment and technology needed for scientific inquiry in the 1980s? Within our own community, thoughtful faculty are wondering whether it is still possible to combine research and teaching without lessening research productivity or compromising the tutorial quality of our instructional programs. These and related questions of resource management have become particularly critical for biomedical research, which accounts for about 55 percent of the University's research effort annually.
 - How best can the University link biomedical research with doctoral education in the biological sciences and related fields of engineering, on the one hand, and, on the other, with professional education in Medicine, Nursing, Dental Medicine, Veterinary Medicine, and the Wharton School?
 - How can we make certain that sufficient resources—financial and physical as well as intellectual—will be available to biomedical research to answer the challenges of the 1980s?
 - Should the University seek new roles, responsibilities or affiliations for its research institutes and faculty?
 - How should the University accommodate nontraditional forms of applied research?

5. Educational Outreach

One of the anomalies of higher education's current predicament is that the demand for nontraditional post-secondary education actually will increase over the next decade, just as traditional enrollments begin their scheduled declines. As corporate and specialized training programs have grown both in size and sophistication, many observers have come to believe that the future of higher education lies in the ability of colleges and universities to reach new clientele seeking a wider variety of educational experiences.

In responding to this challenge, Pennsylvania cannot become something it is not. As a research university in an urban setting, the University of Pennsylvania is in a unique position to offer continuing education to the well-educated practitioner who seeks specialized knowledge or contact with university-based researchers and specialists in his or her field. We need to develop programs which will facilitate interaction between the University and community on many levels, and make the education we offer of interest to a broader segment of students. While preserving the University's primary mission, we must explore new ways of supplying our kind of education. This may involve expanding our definition of the classroom—shifting, when appropriate, the faculty role, and modifying the academic calendar to accommodate occupational schedules.

The Wharton Executive MBA program provides one model. The Faculty of Arts and Sciences also offers an array of non-credit seminars which show promise of creating for the University a well-educated audience of lifelong learners. As most of the University's schools continue to develop outreach programs, the critical questions become:

- What steps should the University take to extend and coordinate these efforts?
- Should Pennsylvania seek cooperative arrangements with other institutions?
- How should the University approach new technologies which promise to expand the modes of educational delivery?
- How can we encourage the University's standing faculty to take prime responsibility for educational outreach programs, thus assuring continued high standards of instruction and scholarship?
- Should Pennsylvania continue the policy of expecting educational outreach programs to pay their own way?

(Continued on page 6)

6. Ties with the City of Philadelphia

The University also must reach out to other constituencies. As an international university, Pennsylvania pursues a wide range of exchanges, cooperative programs, and opportunities for service and research abroad. In addition to maintaining a long tradition of national service, we enjoy a special relationship with the Commonwealth of Pennsylvania, which has brought substantial opportunities to the state and to the University. While we must continue to extend and develop these external relationships, this year we want to focus our planning on the University's ties to the city.

The University has always taken pride in its urban setting. As Philadelphia's largest private employer, the University has strong financial ties to the city. In West Philadelphia, moreover, the University has a responsibility to ensure residential as well as commercial development, to join with its neighbors in fostering a sense of community, and to provide a visible link to Center City.

At times the West Philadelphia community has felt itself abandoned by the University, a view often shared by the city as a whole. Good intentions sometimes have served only to worsen the feelings of suspicion engendered by University expansion during the 1950s and 1960s. As the city seeks to recast its economy and revitalize its neighborhoods, what role should the University play? The University already has begun to plan for its real estate holdings in West Philadelphia. Working with the Acting Vice President for Finance and Administration and the University's real estate consultants, our new Real Estate Council has begun to inventory the University's properties, gauging their suitability for faculty and student housing and for those community amenities on which residential development most often depends. Faculty housing, so long talked about, may at last come to 34th and Walnut.

The University also has been asked to provide direct assitance to the city and its agencies. Over the next decade, a new generation of municipal leaders and managers must be trained. Chronically short of funds, the city's system of public education faces a crisis of community confidence. In the decade ahead, the city's economy and its ability to compete in world markets for labor, capital, and customers will need similar attention.

In extending our relations with the city, we must be careful neither falsely to raise expectations nor to disappoint when a promise has been given. We might begin by asking three general questions defining our relations with the city.

- How can we best coordinate our efforts as we join with the city and other agencies in preserving Philadelphia's standing as a major economic and cultural center?
- Is this the right moment to seek a program of internships in city agencies?
- In our efforts to attract more University faculty to West Philadelphia, what can we do to improve educational opportunities, personal security, and public amenities for all West Philadelphians?

Next Steps: A Planning Process

What we seek to bring to the University community is a set of substantive proposals and options for wide review and discussion. To begin this process, we have formed working groups of deans and University officers to help:

- review and, where necessary, improve our definitions and our statements of primary concerns;
- make certain that the questions being asked will contribute to a general discussion of educational goals; and
- develop a range of substantive proposals and options to be considered by the University as a whole as well as by individual schools, programs, and administrative centers.

The result of these deliberations will be a set of draft planning papers and administrative proposals to which faculty and students will be asked to respond.

At the same time that the working groups, in consultation with others as far as possible, focus on strategic planning for the next five years, the University's new Academic Planning and Budget Committee will begin a critical review of budget policy and the allocation of resources for the next two budget years, FY 1983 and FY 1984. Three issues will deserve particular attention.

a) Financial Aid. For the University, the most immediate effect of President Reagan's new funding priorities will be a reduction in federally funded student assistance. Every sector of the University will be affected as the federal government forces students and their families to return to the "pay as you go" financial practices of an earlier era. We will need to assess the impact these changes might have on our ability to enroll highly qualified students at the University. We must review present policies for allocating financial aid. To lessen the long-term impact of the new federal priorities, we must develop policies and strategies guaranteeing all University students access to sufficient educational capital with which to finance their educations.

b) Tuition. Changes in federally funded student assistance also will require a general review of our tuition policies. Over the last ten years, tuition income has become the principal source of University revenue, accounting for one out of three dollars available to the University (excluding the hospital and related income from patient care). Over the same period, tuition rates have come to vary widely across schools and programs. In 1973, the University's highest tuition (Wharton MBA) was only \$450 higher than the undergraduate tuition of \$2700. This year, the University's highest tuition (Dental Medicine) is \$5555 higher than the undergraduate tuition of \$6315. As we set tuitions for the next year, we need to reexamine the basic assumptions which have shaped tuition policies over the last five years. To what extent should tuition rates reflect the cost of the student's education, the student's access to educational capital, the tuition levels at peer institutions, the student's potential earnings?

c) Compensation. Last year the University adopted salary policies and guidelines which both recognized internal differences between faculty and staff salary experiences and sought to improve the University's competitive standing among peer institutions. This year we need to extend these efforts by focusing on the effect that external labor markets, particularly in the professions, have on faculty salaries. Here we seek options that reward individual faculty and staff initiative as well as contribute to the general improvement of the University's compensation base.

Our response to these and related issues will guide budget planning for FY 1983. At the same time, we must begin planning for FY 1984 and beyond. If any message has been clearly stated by the deans and department chairmen, it is their need for multi-year budget planning—a need to move from an annual cycle of seemingly nonstop budget negotiations to a longer-term framework explicitly linking staff plans and budget priorities. The first task of the Academic Planning and Budget Committee will be to initiate a multi-year budget cycle that begins with a substantive discussion of budget policies.

In December and January, the deans and the Academic Planning and Budget Committee will exchange agendas. The deans, in consultation with their faculties and using guidelines adopted with the advice of the Academic Planning and Budget Committee, will develop first-round budgets as well as preliminary staffing plans for FY 1984.

The Academic Planning and Budget Committee and, when appropriate, other faculty-student committees, will consider the initiatives and options outlined in the planning paper developed by the central administration with the help of the deans. From these deliberations, there should emerge an amended planning agenda to which each school, program, and administrative center will be asked to respond with detailed plans, including specific goals and targets to be met over the next five years.

In sum, we seek a broad discussion of the University's educational goals and future. For this year, we have organized the planning agenda around six general topics and specific questions we believe require critical review. In coming years, our agenda and planning will evolve as we all come to a better understanding of the University's strategic options. Even in these difficult times the University can remain the master of its own future if we understand that good planning is a continuous process of review and evaluation as well as growth and change.

ON CAMPUS September 22-October 4

Children's Activities

October 3 Arborgames, a children's workshop at the Arboretum. The fee is \$4.50 members, \$6 non-members. Call 247-5777

Exhibits

Through October 16 Bits and Pieces, sculptures by Robinson Fredenthal will be on exhibit in the Faculty Club Lounge. Sponsored by President and Mrs. Sheldon Hackney and President Emeritus and Mrs. Martin Meyerson.

Ongoing The Egyptian Mummy: Secrets and Science. This exhibition explains Egyptian ideas about life after death and health and disease patterns revealed by X-ray and autopsy studies of mumified remains; at the University Museum.

Ongoing India At The University Museum is a display of Indian textiles, jewelry, ceramics and sculpture dating from 2500 B.C. to the 19th Century A.D.; at the University

Extended thru January 10, 1982 Echoes of the Samurai: Japanese Arms and Armor is an exhibit of helmets, weapons, samurai swords and body armor dating from the 17th-19th centuries; at the University Museum.

Gallery Hours

Faculty Club 36th and Walnut. For information regarding hours call Ext. 3416.

University Museum, 33rd and Spruce, phone: 222-7777, is open Tuesday-Saturday, 10 a.m.-4:30 p.m., Sunday, 1-5 p.m. Closed Mondays and holidays.

Gallery Talks and Tours

September 23 Classical World September 27 The Museum as Artifact (New - tour of the outside of the building.) October 4 Archaeology

The gallery talks and tours are free and begin at the main entrance of the University Museum at 1 p.m.

Films

Exploratory Cinema

September 23 Muybridge's Animal in Motion, Lumiere Films, Magic Films, The Great Train Robbery, Cohen's Fire Sale and Conquest of the Pole.

September 30 Rien Que Les Heures and Berlin, The Symphony of a Great City.

All screenings are held at Annenberg Center's Studio Theatre on Wednesday evenings at 7:15 and 9:30 p.m. Admission: \$2 for students with ID and \$3 for others.

GSAC Film Series

October 2 Open City, 7:30 p.m. only.

GSAC films are shown at Stiteler Auditorium, admission \$1.

Houston Hall Films

September 25 Life of Brian, 8 and 10 p.m.; It Came From Outer Space (3-D), midnight.
September 26 Exorcist, 8 and 10 p.m.

October 3 Ordinary People, 7:30 and 9:30 p.m.

All Houston Hall films are screened in Irvine Auditorium,

International Cinema

September 23 Mon Oncle d'Amerique, 7:30 p.m. French with English subtitles.

September 24 Mon Oncle d'Amerique, 7:30 p.m.; Lancelot Of The Lake, 9:45 p.m. French with English subtitles. September 25 Lancelot Of The Lake, 4 p.m.; The Dozens, 7:30 p.m. English

September 26 The Independent Feature Movement, 1 p.m. workshop with Randall Conrad and Christine Dall.

September 30 Kanall, 7:30 p.m. Polish with English

October 1 Point of Order, 7:30 p.m.; Clay Plus: New Animation from the Pacific Northwest, featuring Closed Mondays, Mountain Music, Legacy, Dinosaur, Clay Animation, Gazebo Trailer, Party Line and The Krogstad

Film, 9:30 p.m. October 2 Kanal, 4 p.m. Clay Plus, 7:30 p.m.; Point of Order, 9:30 p.m.

All International cinema films and workshops are held at International House, 3701 Chestnut Street. Admission \$2.50 for evening shows and \$1 for matinees. The workshops are free with pre-registration. For more information call 387-5125 Ext. 201.

PUC Film Alliance

September 24 The Man Who Fell To Earth October 1 Day For Night

All PUC films are shown in Irvine Auditorium at 10 p.m. Admission \$2.

University Museum Series

October 4 Day After Trinity

Films in this free series are screened Sundays at 2:30 p.m. in Harrison Auditorium of the University Museum.

Music

September 25 Graduate student recital with Cynthia Priem, violin and Nancy Morgan, piano at the Music Building Annex at 8 p.m.

September 26 David Bromberg Concert, 8 and 10 p.m., Houston Hall Auditorium. Tickets available at Houston Hall. October 1 PUC concert series presents, Peter Tosh: Wanted Dread or Alive, 8 p.m., Irvine Auditorium, 34th and Spruce St. Ticket prices are \$10.50, \$9.50, \$8.50, with \$2 off with Penn ID.

Religion

Asbury Church Sunday Worship, 11 a.m. 3311 Chestnut Street. For more information and special events call 895-2522 or 386-0724.

Ecumenical Eucharist Friday services, 12:10 p.m., at the Christian Association Chapel, 3601 Locust Walk. A gathering for new and informal ways of sharing communion. For information call 386-3916.

Episcopal The Holy Eucharist is celebrated each Sunday at 8 and 10:30 a.m. at St. Mary's Church. For more information call 386-1530.

The Eucharist is celebrated each Monday-Thursday at noon in St. Philip's Chapel, main Church building. Jewish Orthodox services take place each Friday at sundown in the Hillel Chapel, 202 South 36th Street; Conservative services take place each Friday at sundown in the C.A. Auditorium; Reform services take place each Friday at 6:30 p.m. in the High Rise East, 2nd floor lounge, 3820 Locust Street. For information on special services call Ext. 7391. Lutheran Eucharist service is held at 10 a.m., Sundays at the Lutheran Student Center. Information call 387-2885.

Muslim Jumaa Service and meeting every Friday, 1 p.m., Houston Hall, 2nd floor, room 245. For more information call 727-1261

Roman Catholic Mass is celebrated at 11 a.m. on Sundays at the Newman Center, 3720 Chestnut Street. For information call Ext. 7575.

Tabernacle Church, Common Worship, each Sunday at 10 a.m.; Korean Service, each Sunday at 2 p.m. 3700 Chestnut Street For more information on special events call 386-4100.

Jewish High Holiday Services Rosh Hashanah

September 28 Orthodox and Conservative service at 6:30 p.m.; Reform service at 8 p.m.

September 29 Orthodox and Conservative service at 9 a.m. and 6:30 p.m.; Reform service at 10 a.m. September 30 Orthodox and Conservative service at Q a m

Yom Kippur

October 7 Orthodox and Conservative service at 6:30 p.m.; Reform service at 8 p.m.

October 8 Orthodox and Conservative service at 9 a.m.; Reform at 10 a.m.; Conservative study session at 4 p.m. and Mincha at 5 p.m.

Orthodox services are held at Lubavitch House, 4032 Spruce Street; Conservative services at Irvine Auditorium; Reform services in the University Museum Auditorium.

Special Events

September 22 The Faculty Tea Club will meet for lunch and a talk by Dr. Alan Beck on his research on the role of pets in our lives. For reservations call Betty Geller, Ext. 4655

September 23 United Way Campus Campaign. Kickoff Parade begins at 39th and Locust, 11:30 a.m. and leads to Blanche Levy Park Green, where the Walk will be temporarily renamed Penn's United Way.

September 25 The Faculty Club presents Family Night; á la carte menu and entertainment for children (under 12,

free), 5-8 p.m., at the Club. September 26 Museum Shop Fashion Festival, a fashion show and sale of clothing and accessories, some imported and some showing influences from other cultures, 10 a.m.4 p.m. Informal modeling will be provided by friends of The Museum at 11 a.m., 12:30 and 2:30 p.m. inside the main entrance of The Museum. Clothing from the Festival will be available in The Museum Shop through Sunday, September 27. Mary Elizabeth Ruwell. University Museum archivist, at right, models a hand made silk coat with scenes of Japanese Court Ladies by Theressa S. vanGroll, a member of The American Crafts Council from



Psychodrama and the Family, a conference sponsored by International House and the Delaware Valley Society of Group Psychotherapy and Psychodrama, which uses action methods to aid constructive change in individuals and groups; 9 a.m., fee and pre-registration. Call Ira Orchin, 972-0458 for information.

September 26-27 Harvest Show, Big Trees of Southeastern Pennsylvania, will be the Morris Arboretum's entry in the Pennsylvania Horticultural Society's 1981 Harvest Show. Memorial Hall in Fairmount Park, 10 a.m.-5 p.m. Admission \$2 for adults, \$1.50 for children under 12. For more information call 247-5777.

September 26-October 3 Meeting the Mushroom, Morris Arboretum course, 10 a.m.-noon, fee. For more information call 247-5777.

September 27 Indochinese Day, sponsored by the Indochinese Community Center in cooperation with the Folklife Center of International House, from noon-6:30 p.m. This program includes workshops on Southeast Asian crafts, dance, folklore, puppetry, music and food. \$3 for adults, \$1.50 for children, senior citizens, students, and refugees who have been in the US for less than one year.

September 28 Mini Health Fair sponsored by HUP on 36th Street near Locust Walk from 11 a.m. to 1:30 p.m. Participants include Sports Medicine Center/Gait Analysis, Dental Medicine, CPR, Scheie Eye Institute, Speech and Hearing Center, Nurse-Midwives/Breast Cancer, Volunteer and Nutrition services. These and other services are available to Penn faculty and students. There will be free screening and literature available

Sports (Home Schedules)

For more information on sports call Ext. 6128; for ticket information, Franklin Field pick up window at Ext. 6151. Locations: Franklin field: Varsity Football, Women's Field Hockey, Lightweight Football, Freshman Football and Men's Soccer; Fairmount Park's Belmont Plateau: Men's and Women's Cross Country; Penn's Landing: Sail-ing; Lott Courts: Women's Tennis; Weightman Hall: Women's Volleyball; Palestra: Men's and Women's Basketball

September 22 Women's Field Hockey vs. Delaware, 7:15 p.m.; Women's Tennis vs. Swarthmore, 3:30 p.m. September 25 Men's Soccer vs. St. Joseph, 8:15 p.m. September 26 Women's Tennis vs. Trenton State, 2 p.m.
(Talks: next page)

Talks

September 22 HUP presents Professor Cairns Aitken, professor of rehabilitation studies, University of Edinburgh, on Psychological Problems in Medical Rehabilitation, 11:30 a.m.-1 p.m., Medical Alumni Hall, HUP. Category I CME Credit for Physicians.

September 23 The Rare Book Room Colloquium presents Erle Leichty, professor of Assyrian, curator Akkadian lan-guage and literature, University Museum, on Cuneiform Writing, noon in the main reading room, 6th floor, Van Pelt Library.

The Paradise Gardens of Islam by Antony Hutt, scholar, adventurer and leading authority on Islamic art history, 5:30 p.m. in Rainey Auditorium of the University Museum. Lecture free, \$2 donation requested for wine and cheese reception following the lecture.

September 24 Department of Bioengineering presents Dr. R. J. Lutz, National Institute of Health, Bethesda, Md., on Fluid Mechanics and Mass Transfer in Model Arteries -How Can These Relate To Atherosclerosis? 11 a.m., Towne Bldg.

September 28 Department of History and Sociology of Science presents Dr. Spencer Weart, Center for History of

Physics and American Institute of Physics, on Nuclear Fear: The Background, 4 p.m., David Rittenhouse Laboratory Auditorium.

September 29 The Respiratory Group of the Department of Physiology Institute for Environmental Medicine, Department of Anesthesiology presents Dr. Sylvia T. Hoffstein, New York University Medical Center, School of Medicine, on The Cell Biology of Neutrophil Aggregation, 12:30 p.m., Physiology Library, 4th floor, Richards Building.

September 30 The Rare Book Room Colloquium presents Lloyd Daly, professor emeritus, Classical Studies, on The Development of Greek and Latin Letter Forms, noon in the main reading room, 6th floor, Van Pelt Library.

October 1 Department of Bioengineering presents

Dr. P. Srulovicz, Johns Hopkins University, on Central Spectral Patterns in Aural Signal Analysis Based on Cochlear Neural Timing and Filtering, 11 a.m., Towne Bldg.

The Center for Italian Studies in conjunction with the Center for Studies in Criminology and Criminal Law present David Durk, assistant commissioner, Department of Finance, City of New York, on Organized Crime in America, 4:30-6 p.m., First Floor Conference Room, Van Pelt

South Asia Seminar Series presents David Pingree, professor of history of mathematics, Brown University, on Power Series in Medieval Indian Trigonometry, 11 a.m. in Classroom II, University Museum.

Department of Surgery, HUP, presents the 8th Julian Johnson Lecture in Cardiothoracic Surgery by Dr. E. Stanley Crawford, Professor of Surgery at Baylor College of Medicine, Houston, Texas, on Surgery of Aortic Aneurysms Updated, 5 p.m., Dunlop Auditorium, Medical Education

Theatre

September 25 and 26 Pat Carroll returns by popular demand in Getrude Stein, Gertrude Stein, Gertrude Stein. All plays are set for the Annenberg Center in either the Zellerbach Theatre or the Annenberg School Theatre. For ticket information, call the box office at Ext. 6791.

Ice Skating

The University of Pennsylvania Ice Skating Club is now forming. If you are interested in the schedule for the coming season please call 342-8638, evenings or

OPPORTUNITIES

Listings are condensed from the personnel bulletin of September 21, and therefore cannot be considered official. New listings are posted Mondays on personnel bulletin boards at:

Anatomy-Chemistry Building: near Room 358; Centenary Hall: lobby; College Hall: first floor;

Dental School: first floor;

Franklin Building: near Personnel (Room 130); Johnson Pavilion: first floor, next to directory;

Law School: Room 28, basement: Leidy Labs: first floor, outside Room 102;

Logan Hall: first floor, near Room 117; LRSM: first floor, opposite elevator;

Richards Building: first floor, near mailroom; Rittenhouse Lab: east staircase, second floor: Social Work/Caster Building: first floor;

Towne Building: mezzanine lobby; Van Pelt Library: ask for copy at Reference Desk; Veterinary School: first floor, next to directory.

For further information, call personnel services, 243-7284. The University is an equal opportunity employer. Where qualifications include formal education or training, significant experience in the field may be substituted. The two figures in salary listings show minimum starting salary and maximum starting salary (midpoint). Some positions listed may have strong internal candidates. If you would like to know more about a particular position, please ask at the time of the interview with a personnel counselor or hiring department representative. Openings listed without salaries are those in which salary is to be determined. Resumes are

Administrative/Professional Staff

required for administrative/professional positions.

Accountant I (4057) \$12,000-\$16,100.

Accountant II (4369) contributes to the preparation and analysis of many University financial reports; assists with special accounting assignments and reconciliation efforts as required (degree with coursework in accounting; three-four years' experience in fund accounting for institutions of higher education; working knowledge of University's financial accounting system) \$14,500-\$19,775.

Administrator, Data Communications (4259).

Assistant Dean (4117) \$16,350-\$22,600.

Assistant Director I (4246) \$13,100-\$17,800. Assistant Director III, Alumni Relations (4315).

Assistant Director, Annual Giving III (4144).
Assistant Director, Bookstore Textbook Department (3997) \$14,500-\$19,775.

Assistant Director, Student Financial Aid (4134) \$14,500-\$19,775

Assistant to the Director, Alumni Relations (4311)

\$12,000-\$16,100.

Assistant to the Director, Annual Giving (4314) \$12,000-\$16,100.

Associate Development Officer (4373) analyzes fundraising resources; researches and plans techniques to obtain annual corporate gifts for the Wharton School; maintains and promotes relations with corporations; prepare and coordinates stewardship activities (ability to communicate effectively; basic appreciation of the non-profit field and higher education) \$14,500-\$19,775.

Associate Development Officer II (4376) assists in developing, implementing and evaluating regional activities impacting on the Office of Development and University Re-

lations (degree; five years' experience).

Associate Development Officer II (4140).

Associate Development Officer III (4371) supervises capital gifts, annual giving and alumni relations activities for the School of Nursing; conceptualizes, plans and executes appeals for funds; functions independently (degree; record of successful fund-raising in higher education).

Coordinator V (C0216).

Coordinator, Clinical Education (C0179) \$16,350-\$22,600.

Counseling Psychologist II (4215) \$16,350-\$22,600. Department Head I (3926) \$14,500-\$19,775.

Director IV (C0302) directs primary health care financing projects; coordinates data collection with field unit; supervises and operates computer-based interactive financial planning model; writes reports; conducts and supervises literature search: maintains liaison with state health department; oversees primary care clinics (M.B.A. or M.P.H.; knowledge of ambulatory primary care delivery and financing, experience with applied health services research; verbal

and written communication skills).

Director of Alumni Affairs (4093). Librarian II (4353) \$14,500-\$19,775

Manager, Benefits (4266) \$16,350-\$22,600.

Manager, Billing and Collection (4356) \$12,000-\$16,100.

Placement Counselor (4355) \$14,500-\$19,775

Programmer Analyst I (2 positions) \$14,500-\$19,775. Programmer Analyst II (C0140) \$16,350-\$22,600. Publications Editor/Writer (2 positions) \$14,500-

Research Coordinator (5 positions) \$14,500-\$19,775 Research Specialist, Jr. (7 positions) \$12,000-\$16,100. Research Specialist I (3 positions) \$13,100-\$17,800.

Research Specialist II (5 positions) \$13,100-\$17,800.
Research Specialist III (5 positions) \$14,500-\$19,775.
Research Specialist III (C0174) \$14,500-\$19,775.
Research Specialist IV (C0019).
Senior Staff Writer (4313) \$16,350-\$22,600.

Senior Systems Programmer (3930). Staff Nurse \$12,000-\$16,100.

Staff Writer I (4340) composes letters for signature of University President to major donors, acknowledging new gifts and reporting on the usefulness of prior contributions; reviews confidential files and works with others to gather information (degree; demonstrated writing ability; familiarity with some aspects of fund-raising) \$12,000-\$16,000. Supervisor V, Data Processing (4368) performs audits

of newly accepted systems; maintains integrity of all production libraries; analyzes and enhances operation systems, trains and supervises personnel (five years' data processing experience with at least three years' supervising; degree with major in data processing management). Systems Analyst (4090).

Support Staff

Administrative Assistant I (2 positions) \$9,925-

Administrative Assistant II (5 positions) \$10,575-

Air Conditioning and Refrigeration Mechanic (3 positions) Union wage.

Animal Laboratory Supervisor I (3811) \$14,400-

Assistant, Loss Prevention Specialist (4178) \$8,475-

Budget Assistant (3790) \$10,575-\$13,100.

Buyer I (4361) orders all merchandise in fine arts department; follows through on orders to make sure they arrive on time, are processed and reach the sales area quickly; respon-

sible for sale and display of merchandise; supervises work of personnel (high school graduate; three years' experience in fine art supplies sales; knowledge of customs and practices in the field) \$9,375-\$11,500.

Carpenter (4301) Union wage. Clerk I (3745) \$8,275-\$10,025.

Clerk I (4374) responsible for a large volume of filing and xeroxing related to the application process, campus posting of job announcements; administers typing tests and related clerical duties (high school graduate; general clerical aptitude) \$7,725-\$9,350.

Clinical Receptionist I (4327) \$8,250-\$10,000. Computer Operator (4347) \$9,925-\$12,250.

Coordinating Assistant (4 positions) \$10,575-\$13,100. Dental Assistant I (3 positions) \$9,150-\$12,675. Electron Microscope Technician II (B0943) \$12,600-

Electronic Technician I (B0399) \$10,175-\$12,400.

Food Service Worker (2 positions) Union wage.

Gardener (2 positions) Union wage.
Gardener II (2 positions) Union wage.
Gardener II (2 positions) \$11,500-\$16,875.
Greenhouse Worker I (4257) \$10,550-\$13,500.
Groom (4094) \$11,000-\$13,000.

Groom (4348) \$7,900-\$10,000 + o.t.

Herdsman I (2 positions) \$11,100-\$12,300.

Junior Accountant (4370) responsible for reconcilation of University general bank account, including control issuance of checks (two years' college education with extensive coursework in accounting or bookkeeping experience) \$9,925-\$12,250.

Laboratory Assistant (4180) \$7,450-\$8,925. Maintenance Engineer (4230) \$14,575-\$18,700 Office Automation Editor I (4165) \$9,925-\$12,250 Office Automation Operator II (C0217) \$9,375-

\$11,500. Operator I, Duplicating Machine (C0127) \$7,725-

Operator, C.O.M. (4244) \$10,575-\$13,100

Production Assistant (4195) \$9,375-\$11,500.

Psychology Technician I (C0223) \$11,225-\$13,775.

Project Budget Assistant (4269) \$9,925-\$12,250.

Receptionist II (4326) \$8,775-\$10,725.

Records Assistant (4342) \$9,925-\$12,500. Research Laboratory Technician I (3 positions)

\$9,150-\$11,000 Research Laboratory Technician II (4 positions)

\$10,175-\$12,400. Research Laboratory Technician III (13 positions)

\$10,700-\$13,125. Research Machinist II (3732) \$12,775-\$16,375.

Secretary II (11 positions) \$8,775-\$10,725.
Secretary III (16 positions) \$9,375-\$11,500.
Secretary IV (5 positions) \$10,575-\$13,100.
Secretary, Limited Service (3959) Hourly wages.

Secretary, Medical/Technical (8 positions) \$9,925-\$12,250.

Secretary, Technical/Word Processing (2 positions) \$9,925-\$12,250.

Stack Attendant (4295) Union wage.
Technician, Information Systems (4256) \$11,225-

Textbook Supervisor (4296) supervises work of textbook department operations; orders textbooks; follows through on orders; responsible for faculty and publisher contact (degree; three years' experience in book sales; ability to supervise) \$11,225-\$14,000.

Typesetter I (C0265) \$12,600-\$15,500.

Typist II (4162) \$8,250-\$10,000.