

Almanac

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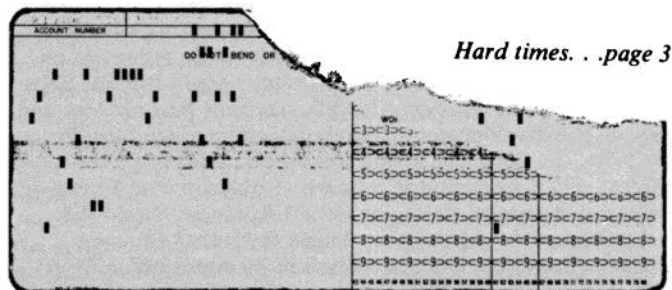
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SENATE: TABLING GRAD ED

At its April 28 spring meeting, the Faculty Senate approved the first three of its action items published April 27 (on by-laws, educational planning and clinical track) and tabled the resolutions on graduate education after extensive debate. Dr. John Hobstetter and others will work further on proposals to solve problems of unity for the Ph.D. without loss of autonomy for the schools granting it. (See page 2 for the April 27 resolution of the faculty of the Biomedical Graduate Groups.) Further Senate coverage will be in the May 11 issue.



Hard times. . . page 3

COMPUTING ACTIVITIES: JEAN CROCKETT

Dr. Jean Crockett, professor of finance, has been named director of computing activities at the University, succeeding Dr. Jon Strauss who continues as Executive Director of the Budget. On page 3 of this issue Dr. Crockett outlines problems and invites discussion on computing needs.

PENN-ISRAEL EXCHANGE: 14 AND 11

Fourteen scholars from Israel and eleven from the University of Pennsylvania will participate in the second year of the Penn-Israel Exchange Project, Dr. Arnold Thackray, chairman of the coordinating committee, has announced.

From Israel, the visiting professors to Penn will include four from Hebrew University, Professors Oded Abramsky (neurology), Zvi Bechler (history of science), David Ricci (public and urban policy), and Michael Keren (economics); four from the Weizmann Institute, Professors Uri Littauer, (molecular biology), Jacques Reuven and Mordechai Shporer (physiology), and Henryk Fischer (engineering); and three from Tel Aviv University, Professors Ze'ev Reuben (classics), Yakov Shamash (engineering), and Shimon Shamir (political science and history). Professors Samuel Sideman (engineering) of the Technion, Shaul Mordechai (physics) of Ben Gurion University, and Jacob Klein (cuneiform studies) of Bar-Ilan University complete the roster. Dr. Klein is the first holder of Penn's Samuel Noah Kramer Fellowship named for the Penn professor.

A mixture of faculty and students makes up the Penn complement to Israel: Professors Samuel Klausner (sociology), Raymond Berkowitz (engineering), Peter Kuriloff (education), Norton Taichman (pathology/dental), Mortimer Civan (physiology), and Robert Maddin (engineering); postdoctoral fellow Tamara Wheeler, (archaeology); graduate students Sandra Epstein (sociology) and Patrick McGovern and Fred Brandfon (archaeology); and University Scholar Mark L. Nagurka (engineering).

All of the Penn participants will be at Hebrew University except Dr. Berkowitz (Technion), Dr. Civan (the Weizmann Institute),

and students Brandfon and Nagurka (Tel Aviv University). Drs. Berkowitz and Taichman have been awarded Lady Davis Fellowships by their host institutions.

HONORS

PHILOSOPHICAL SOCIETY: PRESIDENT RHODES

Dr. Jonathan Rhoads, professor of surgery, has been elected president of the American Philosophical Society. He succeeds Princeton Historian Julian Boyd in a succession that began with Benjamin Franklin, David Rittenhouse and Thomas Jefferson, and later included Penn men Edgar Fahs Smith, Owen J. Roberts, Isaac Wistar, George Wood, and Thomas S. Gates Sr.

NATIONAL ACADEMY: NOWELL, KOPROWSKI, HARRIS

The National Academy of Sciences elected two faculty members to membership in the Academy and a third to foreign associate membership at its annual meeting in April. Elected to full membership status were:

Dr. Hilary Koprowski, Wistar Professor of Research Medicine and director of the Wistar Institute of Anatomy and Biology, who was honored for his contributions to research on cancer, rabies, multiple sclerosis, and polio; and

Dr. Peter C. Nowell, professor of pathology and former director of the University of Pennsylvania's Cancer Center, whose research on leukemia has also earned him the Gerhardt Medal of the Philadelphia Pathological Society.

The foreign associate member is Dr. Harry Harris, the new Gaylord P. and Mary Louise Harnwell Professor of Human Genetics.

LINDBACK AWARDS FOR 1976

The eight 1976 Lindback Foundation awards were announced at Hey Day by Vice-Provost Patricia McFate. The honored are Dr. Norman T. Adler, associate professor of psychology; Dr. Irma B. Csanalosi, assistant clinical professor of psychiatry; Dr. Norman J. Glickman, associate professor of city and regional planning; Dr. Barbara Kirshenblatt-Gimblett, associate professor of folklore and folklife; Dr. Chan-Nao Liu, professor of anatomy; Mary Ann Miller, assistant professor of nursing; Dr. Arnold J. Rosoff, assistant professor of business law and health care systems; and Dr. Jay S. Seibert, professor and chairman of the periodontics department.

The awards, each of \$500, will be presented to the recipients by Dr. Charles Dwyer, president of the Lindback Society, at a reception on May 10.

HONORS IN BRIEF

The Graduate Hospital Auxiliary dedicated its Golden Gala in February to Dr. Henry L. Bockus, emeritus professor of medicine.

Dr. Carl T. Brighton, professor of orthopedic surgery, was named president-elect of the Orthopedic Research Society.

The Royal Society chose its Penn member Robert E. Davies, Benjamin Franklin Professor of Molecular Biology, as a delegate to the Academy of Natural Sciences' April symposium.

Emeritus professor of English and Romance languages Ruth J. Dean received a Wellesley College Alumnae Achievement Award in March.

(continued next page)

HONORS continued

Dr. Loren Eiseley, Benjamin Franklin Professor of Anthropology and the History of Science, won the Christopher Award for his book, *All the Strange Hours*. The book of memoirs has also been named one of the Notable Books for 1975 by the Book Council of the American Library Association.

The Golden Medal of the City of Vienna was presented to *Dean Varian Gregorian* for his work, with the late Dr. Adolf Klarmann, in organizing the literary estate of the Austrian author and critic, Franz Werfel. He received the award at an international symposium on Werfel's work, held in Vienna in April.

A poll of 400 academic sociologists conducted by the National Directory of Sociology of Education named *Dr. Neal Gross*, professor of sociology and professor of education, one of five "sociologists who have made the greatest contributions to the sociology of education during the past 25 years."

The M. H. Samitz Lectureship in Cutaneous Medicine has been established in honor of *Dr. M. Harriss Samitz*, emeritus professor of dermatology, by former students, residents, and colleagues.

Dr. Edgar T. Wherry, emeritus professor of botany, received the Morris Aboretum Award in April.

Professor of communications *Sol Worth* was elected to the executive committee of the Inter-University Center for Film Studies, a coordinating body for a 15-university consortium offering a program of film studies at the University of Paris.

HONORS NOT-SO-BRIEF

More than six millenia of employment at the University were represented when the 25-Year Club went to dinner April 27 at the Faculty Club. The 250 club members present admitted another 59 new members at the annual dinner, which has been a club institution since its founding in 1956. *Dr. Mark Allam*, assistant vice-president for health affairs, was the speaker, filling in for *Dr. Wallace E. Davies*, associate professor of history.

Director of Alumni Records *Maud Tracy*, who has served as secretary of the club for the past four years, estimates that two-thirds of the approximately 600 club members still work at the University. By her rough calculation, the club's total membership symbolizes at least 15,000 person-years at Penn.

Marion Pond, administrative assistant to President Emeritus *Gaylord P. Harnwell*, is replacing Maud Tracy as secretary. The current chairman is *Dr. Ray Saalbach*, director of memorial programs. Chairman-elect for 1977-78 (after 25 years, it seems, the necessity of planning ahead is fully absorbed) is *Dr. E. Digby Baltzell*, professor of sociology.

The University employee with the most seniority, according to *Dean R. Jean Brownlee*, former chairman of the club, is *Dr. Albert Baugh*, Felix Schelling Professor Emeritus of English, who dates his continuous presence at Penn from his undergraduate matriculation in 1908 to his retirement in 1961.

LAW SCHOOL HONORARY DEGREES

The University awarded five honorary doctor of laws degrees at a special Bicentennial convocation on April 29. They went to:

William T. Coleman, Jr., currently the Secretary of Transportation in President Ford's cabinet and a former partner in the Philadelphia law firm of Dilworth, Paxson, Kalish, and Levy;

Thomas I. Emerson, Lines Professor of Law at Yale and author of *Toward a General Theory of the First Amendment*;

Shirley M. Hufstедler, U.S. Court of Appeals judge for the Ninth Circuit (Los Angeles);

Philip C. Jessup, retired judge of the International Court of Justice, former professor of international law at Columbia, and author of *A Modern Law of Nations* and *The Price of International Justice*; and

Clarence Morris, emeritus professor of law at Penn and author of *The Great Legal Philosophers*.

President Martin Meyerson conferred the degrees in ceremonies at the Annenberg Center.

BIOMED GROUPS ON GRADUATE EDUCATION

At an April 27 meeting of the faculty of the Biomedical Graduate Groups the following resolution was passed by a vote of 35 to 5. Dr. Fred Karush reports:

The Faculty of the Biomedical Graduate Groups approves the proposal that the Faculty of Arts and Sciences establish the position of associate dean for graduate studies and that this FAS associate dean supervise the biomedical graduate groups as well as the graduate groups currently within the FAS.

CLARIFICATION: CENTRAL COST TABLE

Dr. John Hobstetter notes that the salary figures given in the Committee on Education's Table 1 last week are "budgeted salaries" as opposed to salaries paid to individuals, as indicated in text alongside the table (bottom of page 4, continuing on page 6).

Council on Equal Opportunity

A new Council on Equal Opportunity has been formed, made up of school affirmative action officers, administrators holding affirmative action assignments in the larger indirect cost centers, members of the Offices of Equal Opportunity and of Personnel Services, and representatives of the A-3 Assembly.

Dr. Madeleine M. Joullie, professor of chemistry and affirmative action officer for FAS, is chairperson of the group. At its first meeting Tuesday, April 13, the Council heard Provost Eliot Stellar, Senior Vice-President for Management Paul Gaddis, and others on the development of equal opportunity here since the early 1970s. *Dr. Bruce Johnstone*, executive assistant to the president, EO Administrator James H. Robinson, and Executive Director of Personnel Relations Gerald Robinson traced the development of the Affirmative Action Program (*Almanac* February 17) and the implementation of its provisions.

Dr. James E. Davis, executive assistant to the provost, said the Council as a whole will "monitor the affirmative action plan as it is implemented and think of things that need changing—in response to changes in laws, for example—to maintain a living plan." Through the Council, the school AAOs will be expected to share among themselves information on what works, he added, and each will become an integral part of the faculty appointment and recruiting process in his or her school.

The initial membership, which will be expanded with the naming of AAOs for some schools and offices not yet represented, is:

School Affirmative Action Officers: Dean George Gerbner, Annenberg; Dean Dell Hymes, Education; Professor Stephen Goldstein, Law; Ada Katz, Public and Urban Policy; Mildred Guinnessy, Social Work; Drs. Leonard Rico and Richard Clelland, Wharton; Louise Glicksman, SAMP; Drs. Jay Seibert and James Galbally, Dental Medicine; Dr. Anna-Marie Chirico, Medicine; Joette Clark, Nursing; Dr. Sheldon Steinberg, Veterinary Medicine; Joseph Looby, Fine Arts; and Dr. Joullie, FAS. (Others are to be named.)

Other Academic Administrative Areas: Dr. Houston Baker, Afro-American Studies; William Adams and Dr. Davis, Office of the Provost; Dr. Johnstone, Office of the President; Eleanor Cox, Office of the Vice-Provost for Graduate Studies and Research; Dr. Kim Morrisson, Office of the Vice-Provost for Undergraduate Studies and University Life; Dr. Donald Stewart, Associate Dean for Continuing Education, FAS; Paul Pitts, Graduate Arts and Sciences; and Dr. Joan Gotwals, Library.

Nonacademic Areas: Dirk Lorenz, Office of the Senior Vice-President for Management; Arthur Hirsch, Office of the Vice-President for Operational Services; Jacqueline Pollard, Office of Personnel Relations; Betsy Geist, Office of Training and Staff Development; Kristin Davidson, Office of Development and Public Relations; Joseph Kane and Delores LeGare, A-3 Assembly; Harold Taubin, Equal Opportunity Committee for the Handicapped; and James Robinson and Wai-Tse Yankowski, Office of Equal Opportunity.

The Life and Hard Times of Computing at Penn

by Jean Crockett

Recent trends have thrown into question the survival on any substantial scale of academic computing at the University. Crucial decisions must be made within the next few months, and a major purpose of the present communication is to permit informed participation in these decisions by interested members of the University community. In particular, the time has come to determine the level of computer utilization that we believe to be appropriate to our academic purpose, to define the role of the high speed terminal network in meeting our needs and to give serious thought to the type and level of user support services that should be offered.

In order to facilitate input from small scale users—graduate and undergraduate students in particular—the Office of Computing Activities (OCA) will schedule meetings on May 7 in McNeil, Dietrich, Rittenhouse and Towne.

What are the trends that have caused so much concern? At the present time all of the University's administrative computing and most of its academic computing—apart from certain specialized research needs met by in-house facilities—is carried out through UNICOLL, a for-profit organization in which the University holds a little over 50 percent of the outstanding stock. Over the last two years there has been a precipitate decline in academic use. Excluding the Wharton School, UNICOLL-related expenditures for internally funded academic purposes were in the neighborhood of \$600,000 in the fiscal year 1973-74. It is unlikely that they will reach \$200,000 in the current fiscal year, and there is good reason to anticipate a further sharp decline next year. Since prices have risen somewhat in the interim, the reduction in activity level is even greater than in dollars spent. Budget levels have been reasonably stable for externally funded research and for the Wharton School, which has sought to satisfy its student needs through a fixed-price contract on a machine that is particularly suitable for interactive use.

At the present low level of computing activity, it is difficult to justify the cost of the high-speed terminal network and of OCA itself. Unless a very substantial recovery in use levels can be induced, it is not possible in good conscience to recommend continuation of these expenses, given the financial pressures under which the University is now operating. However, loss of the terminal network would substantially impair our capacity to maintain usage for externally funded research purposes.

A well-functioning and well-utilized computer capability is an essential component of a first-class university. In the last twenty years the computer has become, for the physical and biological sciences, an enormously valuable complement to the laboratory. For the social sciences, where controlled experiments are not ordinarily feasible, it has become the substitute for a laboratory, permitting the identification of regularities in large masses of uncontrolled data. For these reasons, I believe that the decline in computer use to its current and projected levels, unless quickly reversed, represents a serious threat to the academic quality of the University.

The small element of good news that can be gleaned from our present situation lies in the mobilization of concern among computer users and in their willingness to set aside parochial interests and devote time and effort to the search for a widely acceptable solution. Particularly valuable has been the support of the University's Computer Policy Committee, chaired by Martin Pring; the Computer Users Committee, chaired by Gerald Porter; and the FAS Computer Committee, chaired by Albert Ando. Without a spirit of cooperation and a sense of direction among

those deeply concerned, the present task of the Office of Computing Activities would be an impossible one.

An initial step in the search for a solution is to investigate the causes of the observed decline in use. They are not as mysterious as they might at first sight appear. Three things have happened more or less simultaneously over the last two or three years; their concurrence has been particularly damaging. (1) The University has suffered a loss in real income. (2) A changeover has occurred from an arrangement in which computing was fully subsidized by the central University to one in which users are required to pay not only for the cost of UNICOLL services they consume but for the costs (including amortization of capital expenditures) of the University's high-speed terminal network. Pseudo-dollar charges became real. (3) Under responsibility center accounting, the Deans have been required to cut budgets in which there were very few discretionary items. Reductions in such direct costs as the salaries of tenured faculty and in such indirect costs as the charges imposed for operations and maintenance and general administration and expense are outside the Deans' control. In combination, these items account for an extremely high proportion of the total budget.

Under such conditions, the dramatic decline in computer expenditures is hardly surprising. The responsibility centers, required to reduce cost somewhere and confronted with a newly imposed price on what had previously been (to them) a free service, found the price more than they felt they could afford to pay. Stated more precisely, computer services, at the going price, were relatively unattractive contenders for the limited pool of discretionary funds, given other needs and other prices.

While the economic considerations of price and income are central to the immediate problem, there are other contributing factors. Computer use at the University has been retarded by inadequate dissemination of information and by the shortage of documentation services and consulting support. Much initiative has been lost and much frustration incurred because unsophisticated users do not know what opportunities are available to them or do not have access to some minimal guidance in addressing themselves to the computer. These shortcomings should be corrected as rapidly as financial constraints permit.

In addressing the problems outlined above, it is necessary to be clear about our priorities and to identify the constraints within which we must work. The University's first priority must be to meet its computing needs at a cost within its means. Except in this context, our involvement with UNICOLL and the heavy investment that we have made there have no justification at all. Without intent to assign blame to any of the parties involved, I find the conclusion inescapable that our needs are not being met under current arrangements and that the arrangements must therefore be in some way altered. In order to raise computing activity to an acceptable level, it appears to be essential that we obtain more for our money from UNICOLL. In addition the question of central funding for such common facilities as the terminal network must be reexamined.

Specific proposals to achieve our goals are constrained in a number of ways. In particular the proposal must not impair either the commercial viability of UNICOLL or the interests of other share holders. The extent to which user support can be improved is temporarily limited by financial conditions within the University, although some improvement is believed possible within existing budgetary limits.

A number of proposals are actively being considered and suggestions or comments from interested persons are invited.

Recognizing Exceptional Preparation: The Advanced Placement Program at the University of Pennsylvania 1955-1975

by Jeannie Disette

Many of the students who enter Penn's freshman class each year arrive especially well prepared for college work. One of the longstanding programs that helps acknowledge that preparation is the College Entrance Examination Board's Advanced Placement Program that grew out of a 1952 study sponsored by the Ford Foundation Fund for the Advancement of Education.

As we begin our third decade of participation in the nationwide program it seems appropriate to review its development, the impact it has had on undergraduate education at Penn, and its role in easing the freshman's transition from high school to college.

Growth of the Program

The CEEB Advanced Placement Program was set up to "assist strong secondary schools, both independent and public, in planning and teaching courses in eleven subjects conventionally taught to college freshmen in order that able students may proceed farther than at present in the standard studies of a liberal education."

In the fall of 1953, seventeen secondary schools in the U.S. modified their curricula to prepare candidates for the first Advanced Placement Examinations, and twelve colleges agreed to consider these students for admission with advanced standing. The experiment was so successful and the program so well received both by the secondary schools and the colleges that in 1955 the CEEB assumed responsibility for its continuation and development. In conjunction with the Educational Testing Service, examinations are now administered each spring in thirteen disciplines: American history, art history, biology, chemistry, classics, English, European history, French, German, mathematics, music, physics, and Spanish. The examinations are designed to test the extent to which candidates have succeeded in meeting the college-level demands of the course descriptions. The secondary-school curricula and the examinations are prepared by committees composed of college and secondary-school teachers, and are graded from 1 to 5 by a group of several hundred college and school teachers familiar with the program. College credit is recommended by the College Entrance Examination Board for scores of 3 and above, but decisions about credit awards may be made independently by the participating colleges.

In the fall of 1955 Penn matriculated its first group of Advanced Placement students. Each department concerned determined its own credit policy; the Office of Admissions assumed the responsibility for issuing the credit approved by each department. By 1959 the program had grown so large that a part-time director was named to supervise its operation.

The growth pattern of the Advanced Placement Program at Penn was parallel to that of the program nationally (as illustrated on the graph here) until 1970. In the last few years, Penn's program has leveled off more than the national program.

Nevertheless, the 608 students currently involved in the program represent 30% of the freshman class. In 1975, Penn ranked seventh in the list of 100 colleges and universities having the largest number of Advanced Placement Examination candidates. (The top six were Michigan-Ann Arbor [970 candidates], Cornell [899], UCLA [728], Harvard/Radcliffe [717], Illinois-Urbana [655], and Yale [623]. In all, 1517 colleges and universities now participate.)

As demonstrated in Figure 1, the percentage of students receiving credit for their AP exams has risen steadily since 1963 to a high of 82% in 1975. This increased percentage is not due to a lowering of standards on the part of Penn departments; indeed, some recent score requirements are more stringent than before. Between 1955 and 1963 the percentages fluctuated widely. Since in that period the number of secondary schools entering the programs increased tremendously, it is possible that once the Advanced Placement curricula became established in the secondary schools, the students were better prepared for the examinations and their scores improved.

Areas of Student Interest

One of the most interesting aspects of the Advanced Placement Program at Penn concerns the relative frequency of student selection of each of the thirteen Advanced Placement Examinations which are administered. The chart below ranks the subject areas, according to the total number of examinations taken in each from 1955 to 1975.

*Summary by Subject: 20-Year Totals (1955-1975)
(In order of number of exams taken)*

Subject	Total Number Taking Exam	Total Number Earning Credit	% Earning Credit	Total Credits Earned
English	4572	3070	67.2%	5442
Mathematics	3142	1714	54.6%	2551
U.S. History	1808	956	52.9%	1918
Biology	728	333	45.7%	605
French	712	315	44.2%	448
Chemistry	698	192	27.5%	325
European History	618	220	35.6%	439
Physics	310	111	35.8%	181
Latin	226	97	42.9%	115
Spanish	219	134	61.2%	205
German	120	52	43.3%	105
Art	16	9	56.3%	9
Music	5	0	0.0%	0

This chart shows student interest over the twenty-year period, but it does not describe the trends which exist in student

examination choice on a year-to-year basis. Thus, although the English examination is by far the most frequently taken, its popularity peaked in 1969-71 and declined since that time. (It is important to note that until 1965, the English examination could be counted twice, once for English composition credit and once for English literature credit. This explains the 3000-course-unit differential between the number of credits earned in English and the number earned in mathematics, the second most frequently taken exam.) Three other examinations in the humanities area—classics, French, and Spanish—also reached their peaks in 1965-70 and have been declining for the past few years. Spanish, however, experienced an increase in 1975 and may be on the rise again. American history also peaked from 1965-70, declined from that time forward, and experienced an increase in 1975. In fact, the 184 American history examinations taken in 1975 represent an all-time high for that subject. German and European history are the only humanities/social science area disciplines which experienced an increase in student interest from 1970-75.

The number of examinations taken in the natural sciences has generally been increasing during the past few years. The mathematics examination has been a strong force throughout the twenty-year period and has experienced a steady increase in the number of examinations taken each year. The number taken in biology and physics has steadily increased since 1965 as well,

although it was quite low for both in the early period. Indeed, no credit in any of the laboratory sciences of biology, physics, or chemistry was issued until 1959, conceivably due in part to a lack of adequate laboratory facilities in secondary schools in that early period. Chemistry is the only examination in the natural sciences to experience a downward trend in numbers over the past few years (1966-74). However, the number of chemistry examinations taken in 1975 was slightly higher than in 1974.

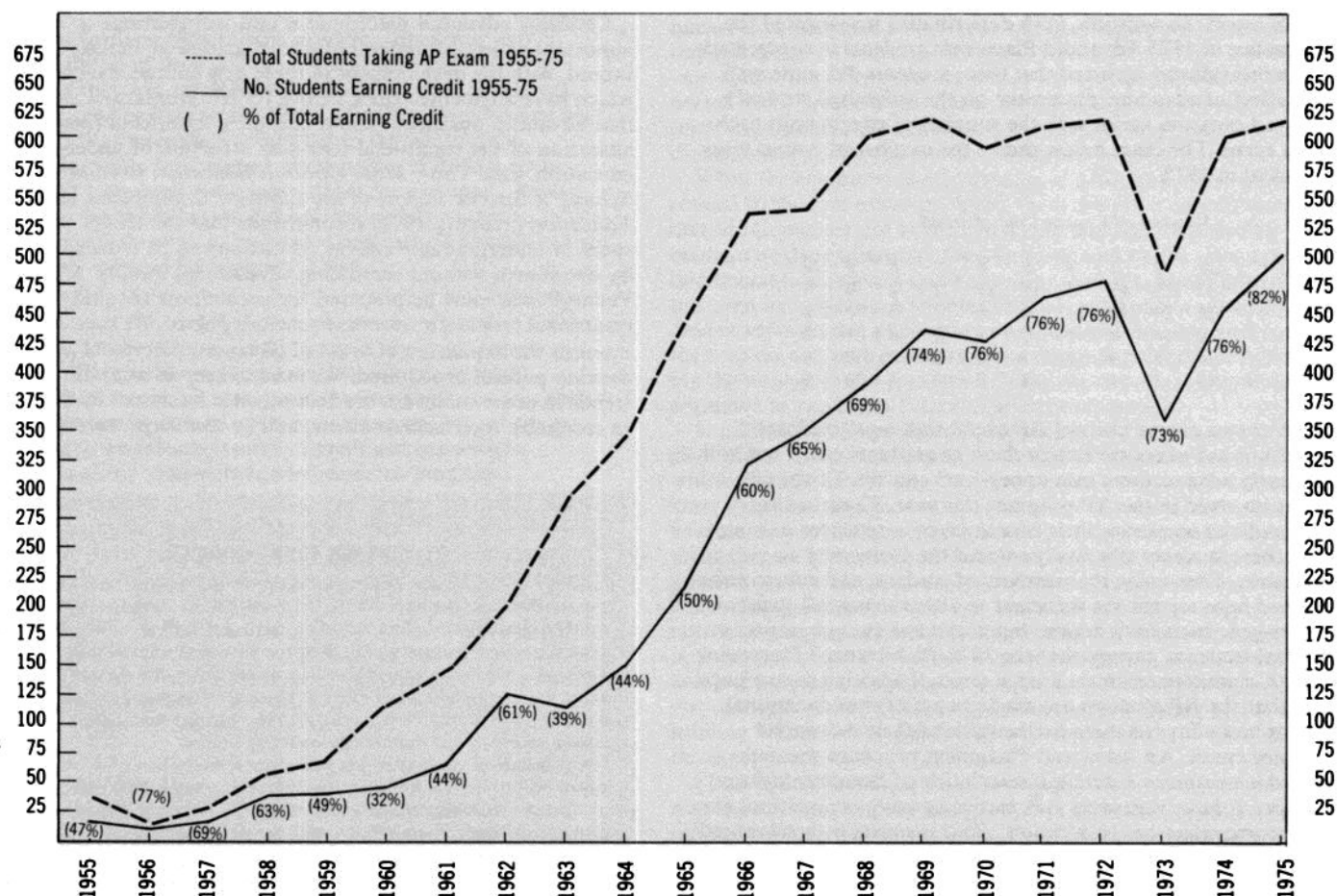
Impact on Undergraduate Education

Secondary schools select students to participate in Advanced Placement courses on the basis of high aptitude and achievement. Thus the matriculation of such students is an obvious benefit to the overall quality of each class. Nevertheless, one cannot ignore the need to anticipate the potential consequences that this program may have on the undergraduate experience at Pennsylvania. In particular, it is important to investigate the performances of students here who receive Advanced Placement credit and to consider carefully the ramifications of altering their traditional four-year undergraduate program.

According to Dr. Carl Haag of the Educational Testing Service, Advanced Placement students are more likely than other college students to take additional courses in the discipline, to receive

GROWTH OF THE ADVANCED PLACEMENT PROGRAM AT PENN

Number of Students



In 1955, 34 students entered the University having taken 68 Advanced Placement Examinations and earned a total of 32 course units; in 1975, 608 students entered the University having taken 1138 examinations and earned a total of 1198 course units. The 1973 drop in both national and Penn AP participation is unexplained by either ETS or campus data.

higher grades in consequent courses, to major in the discipline, and to graduate with honors. The results of studies of Advanced Placement students at Penn, from 1955 to 1962, compiled by the former director of the program, Dr. James Gordon, are similarly impressive. Dr. Gordon was able to trace the performance of AP students in subsequent courses in 249 instances. Of the 249 grades received, 110 were As, 94 were Bs, 34 were Cs, six were Ds and five were Fs—an especially notable performance considering that these grades were earned before grade inflation became prevalent. The quality of the grades is underscored by the fact that this performance was in competition with students who had completed the prerequisite courses on the Penn campus.

From 1962 until last year, no formal study of AP student performance was undertaken at Penn, since no problems were perceived. In 1975, however, the Educational Testing Service conducted a national validity study of the Advanced Placement Examinations. Advanced Placement objective examinations were administered in three disciplines (French, mathematics, and physics) to college students who were not AP candidates, and their scores and grades on the AP Examinations and grades in college courses were compared with the scores and grades received by AP students on the AP Examinations. The colleges and universities involved in the study consisted of 32 of the 150 institutions receiving 73% of AP candidates and included all of the Ivy League institutions except Columbia. On the basis of the results of this study, it appears that not only do the AP candidates perform at a higher level than the college students on the AP exams, but that an AP grade of 2 most often corresponds to a grade of C at college, an AP grade of 3 corresponds to a B, and a 4 to an A. Penn's mathematics and physics departments both participated in this study and agreed that the results of Penn students are in line with the ETS report. In addition, both departments investigated the performance of 1975 Advanced Placement students in coursework at Penn this fall and reported that these students did quite well.

The effect of advanced placement on the individual student's undergrad program varies with the number of course units each student earns. The chart below shows the number of course units per student in 1975.

Number of Course Units Earned

	1 c.u.	2	3	4	5	6	7	8	9	10
FAS	137	125	43	35	17	13	2	2	0	1
Wh	28	29	10	13	0	4	2	6	0	0
Eng	8	14	6	7	0	2	0	0	1	0
SAMP	5	1	0	0	1	0	0	0	0	0
Nursing	0	1	1	0	0	0	0	0	0	0

The one or two course units of AP credit that most students received will not of course enable them to graduate early, but will permit early advancement into upper-level courses. Of the 608 students involved in the AP program this year, 93 earned sufficient credit to accelerate their education by a semester or more; four of these students effectively entered the University as sophomores. Obviously, the numbers of students and course units concerned here are not yet sufficient to alter the overall structure of a four-year bachelor's degree, but they have enough impact on individual students' careers that the 1974-75 Advanced Placement Faculty Committee recommended a series of advising measures to ensure that the AP students are made aware of the educational opportunities afforded them on the basis of their Advanced Placement credit. An Advanced Placement brochure was published which contains a detailed description of departmental and University policies regarding AP, including recommendations for future course selection. In addition, while students with Advanced Placement credit are urged to seek advising from their school offices, students who receive four course units or more of advanced placement credit are *required*—under University policy recommended by the 1974-75 Advanced Placement Faculty Committee and approved by the Committee of Undergraduate Deans—to discuss their undergraduate programs with advisors in

their school offices. In this way, such options as submatriculation may be reviewed, and students may determine whether acceleration or enrichment is most suitable for their academic purposes.

New Directions

Although the growth of the CEEB-ETS Advanced Placement Program has leveled off in the 1970s, the concept of Advanced Placement is being expanded into new areas. Not only are departments at Penn beginning to develop internal examinations for Advanced Placement credit, but freshmen are now completing college courses before they enter the University. This fall, 94 freshmen received a total of 278 course units for work completed at or through accredited colleges prior to their matriculation. In addition to the traditional Advanced Placement disciplines for which ETS AP Exams exist, students received credit in fourteen other subjects at Penn: accounting, anthropology, computer science, economics, fine arts, general literature, geography, management, philosophy, political science, psychology, religious thought, sociology, and statistics. Fifteen students received at least a semester's worth of credit for this work; seven accelerated their undergraduate education by a year or more.

The departments of biology, chemistry, mathematics, and physics offer their own advanced placement examinations for credit. This year 106 students received 122 course units for their performances in these examinations. All of the foreign language areas offer departmental examinations for placement purposes, though none extends credit for the departmental exams. (For a student to receive *credit* for a language exam, he/she must still achieve the appropriate score in a CEEB-ETS AP Exam.)

Certainly advanced placement is and will continue to be an important aspect of undergraduate education at Pennsylvania. Indeed, with the development of these new college-level programs which have augmented the CEEB-ETS AP program, it is possible that advanced placement could become a significant factor in the alteration of the traditional four-year structure of undergraduate education. *Less Time, More Options: Education Beyond the High School, A Special Report of the Carnegie Commission on Higher Education* (January 1971) recommends that the length of time spent in undergraduate college education can be reduced roughly by one-fourth without sacrificing educational quality. We at Pennsylvania must be prepared for such a possible shift from the traditional preparation for the bachelor's degree. We must carefully monitor the expansion of areas of advanced placement credit and develop policies as required. We need to keep in step with national trends in order to attract the best possible freshman matriculants, to recognize their achievements, and to challenge their intellects.

REPORTING FINAL GRADES

This spring we are appealing again to all faculty members to report final grades within the forty-eight- or seventy-two-hour limit, depending on class size. One problem unique to the spring semester, the accuracy of the Honors List in the Commencement Program, has been exacerbated in recent years by the failure of some faculty members to adhere to these grade report deadlines. As a result, the Honors Lists are inaccurate, listing some seniors in the wrong category and completely omitting others.

On behalf of these students and their school offices left to track down an impossible number of unreported grades, we request that all faculty members make every effort to report spring semester grades on time. Your efforts will be welcomed by all who are striving to make the Commencement Program's Honors List a true reflection of our students' achievements.

Eliot Stellar
Provost

Patricia McFate
Vice-Provost

AUDIO-VISUAL CENTER

The Faculty of Arts and Sciences Audio-Visual Center (AVC) is the new name of what was the Language Laboratory. The language lab remains intact, but as one facility in the center. It contains an extensive collection of tapes in more than forty languages as well as source material for the English program for foreign students.

In addition to the language facilities, the AVC offers:

- on-location audio and video recording and playback, made possible through mobile equipment and staff;
- closed circuit television and audio recordings;
- tape editing and duplication;
- individual or group showings of films, video tapes, or audio tapes for as many as 60 people;
- rental of audio-visual equipment to University departments;
- production coordination with other audio-visual facilities on campus.

Lidia Lau-Messmer, who joined the Language Laboratory in 1970, is the new director of the AVC. For information about the services and facilities available, call her at Ext. 4947.

FACILITIES & DEVELOPMENT

The Planning Office is no longer the Planning Office. It is now the Department of Facilities and Development, still headed by Arthur R. Freedman. Titus D. Hewryk is associate director of the department; Robert Zimring is manager of facilities information systems; and Guido E. Rubenis is manager of documentation.

The new department is responsible for planning physical facilities, coordinating the work of architects and engineers retained by the University, and managing the construction of new buildings and major renovation of existing facilities.

CORRECTION: MILLIONS vs THOUSANDS

The figure for value of Penn's physical plant given in the memo on space guidelines last week (page 10) was missing three zeros: \$750,000,000, not \$750,000. *Almanac* regrets the error.

OPENINGS

Under new procedures announced in Almanac February 17, openings in the University can be listed only after position review in the President's Office. Following are the positions now eligible to be filled. (Dates in parentheses refer to dates of issues in which full job description last appeared.)

University employees interested in these positions should call the Personnel Department, Ext. 7285, for appointments.

ADMINISTRATIVE/PROFESSIONAL

ASSISTANT COMPTROLLER (3-9-76).

ASSISTANT DIRECTOR STUDENT FINANCIAL AID (3-16-76).

ASSISTANT DIRECTOR OF WHARTON GRAD ALUMNI to organize and coordinate Lifelong Education Program. Includes preparing seminars; choosing faculty members; carrying out details concerned with program; writing promotional pieces, general brochure, and individual invitations; staffing of some seminars. Financial responsibility for self-sufficient budget. Responsibility for Club Development activities. Writing of regional club mailing pieces, mechanical aspects of club mailing. Ensuring the continuation of strong regional clubs. Responsibility for operation of office and cooperation of personnel in Director's absence. *Qualifications:* Familiarity with journalism and promotional marketing skills; strong organizational abilities. Ability to deal with varying types of personalities. College degree mandatory. Alumni and public relations experience extremely helpful. Familiarity with mass mailing campaigns and complete publications process. \$9,275-\$11,450.

ASSISTANT FOR BUDGET AND FINANCIAL SYSTEMS (4-27-76).

ASSOCIATE VICE-PRESIDENT HEALTH AFFAIRS (4-20-76).

CONSTRUCTION MANAGER responsible to the Director of Construction for the supervision, inspection, invoicing and satisfactory execution of all construction contracts administered by the construction department.

Qualifications: Graduation from a recognized college or university with a bachelor's degree in acceptable engineering curriculum. Ten years of broad general experience in building, construction with background training in administration, inspection and general construction engineering; professional engineering registration highly desirable. \$12,300-\$15,325.

FIELD PLACEMENT DIRECTOR (4-13-76).

NURSE TECHNICIAN (4-20-76).

RESEARCH SPECIALIST I to provide assistance to the faculty supervisor in lieu of the principal investigator. Orientation in the work performed by research specialist; problem solving and investigation.

Qualifications: Graduation from a recognized college or university. Previous work experience with scientific major. \$9,275-\$11,450.

RESEARCH SPECIALIST II (3-30-76).

RESEARCH SPECIALIST III (4-13-76).

STAFF WRITER II (4-6-76).

SUPERVISOR, FOOD SERVICES (4-20-76).

SUPPORT STAFF

ADMINISTRATIVE ASSISTANT I (4-20-76).

ADMINISTRATIVE ASSISTANT II (4-6-76).

BILLING ASSISTANT (4-13-76).

(continued on next page)

PROCEDURES FOR REQUESTING ESTIMATES

Operational Services provides cost estimates for construction and repairs desired by members of the University community. Requests should be initiated by budget administrators or senior administrative officers with the signature of the appropriate building administrator. To reduce the large number of projects estimated but not started, requestors should consider the likelihood of funds being available to meet the anticipated project cost before requesting an estimate.

I. Projects Under \$100,000

These projects should be submitted to the Engineering and Construction Department. An estimator will prepare a *preliminary estimate* that is valid for 30 days and guaranteed to be within 20 percent of the actual cost. A *final estimate* of actual cost will be prepared when a statement of the source and amount of funds available is provided. There will be a \$10 charge on estimates for projects under \$500.

If a request is beyond the Engineering and Construction Department's technical ability, or if a large backlog exists, outside design consultants will be hired if the requestor agrees to pay the additional design charges. Otherwise, the request will be acted upon in sequence.

Construction will normally be accomplished in-house. Upon agreement to pay the additional construction costs, outside contractors may be brought in if outside skills are required or to prevent long delays.

Engineering and Construction will coordinate and inspect all construction and repairs over \$500, in addition to providing regular status reports to the requestor and appropriate building administrator.

II. Projects Over \$100,000

Budget administrators and senior administrative officers may request the Planning Office to develop conceptual illustrations and budgetary cost estimates for major projects. Any additional services, including formal illustrations and models, will be chargeable to the requestor.

The estimate package includes (a) an initial concept, (b) a financial evaluation, and (c) an initial funding request for architectural development, engineering evaluations, and field surveys.

Further action requires approval of the initial funding request by (1) the originating Dean or Director, (2) appropriate Vice-President, Vice-Provost or Provost, (3) Vice-President for Operational Services, and (4) Senior Vice-President for Management. The President and appropriate Trustee committee will be informed of major project status by the Senior Vice-President for Management and the Provost.

—Fred A. Shabel

CLINICAL PERFUSION TECHNICIAN (4-6-76).

FARRIER (4-13-76).

MEDICAL RECORDS ASSISTANT to assist in preparation of research reports. Accumulates and records data on a daily basis. Key punches research data and runs computer programs. Administers structured interviews under supervision. *Qualifications:* Background in psychology, sociology and education, some typing skills, key punch responsibilities. College background. \$6,550-\$7,925.

MEDICAL SECRETARY (6) (3-30-76).

PROJECT BUDGET ASSISTANT (4-20-76).

PSYCHOLOGY TECHNICIAN (4-6-76).

RESEARCH LABORATORY TECHNICIAN III (4-27-76).

RESEARCH LABORATORY TECHNICIAN III (3) (4-20-76).

RESEARCH LABORATORY TECHNICIAN III (3-9-76).

SECRETARY II (7) (4-20-76).

SECRETARY III (11) (3-30-76).

VETERINARY ANESTHESIA TECHNICIAN I to prepare and administer pre-anesthetic, anesthetic and post-anesthetic drugs to animals which are observed by a veterinary anesthesiologist or surgeon. Directs and assists in the restraint of and/or attachment of restraint equipment to patient at operating table. Monitors patient's condition and state of anesthesia; maintains record of same. Directs and assists moving of animal to recovery area. Maintains anesthetic equipment, drugs and related supplies. Remains on emergency call nights, weekends and holidays as assigned. Prepares reports as required, may be responsible for records and test results. May assist in instructing students. This person will work at both the large animal and small animal hospitals, and be responsible for anesthetizing both large and small animals. *Qualifications:* Able to learn; to operate complex equipment; knowledge of the use of many drugs and techniques. Experience in working with all animals. \$7,900-\$9,450.

ACCOUNTING CLERK to perform routine accounting duties. Posts ledgers, types correspondence. *Qualifications:* Good typing skills, clerical and figure aptitude. Ability to use adding machine. \$5,300-\$6,225.

SSW: LAZARUS-GOLDMAN CENTER MAY 12

A Colloquium on Social Work Research will highlight the dedication May 12 of the School of Social Work's new Esther Lazarus-Albert D. Goldman Center for the Study of Social Work Practice.

The two-hour colloquium begins at 10 a.m. in the Rainey Auditorium of the University Museum. Dr. Max Silverstein, professor of social work here, will moderate a panel including Hunter College's Dean Harold Lewis; Penn's Dean Louise Shoemaker; and Dr. Norman Polansky, director of the Lazarus-Goldman Center.

The new center, housed in SSW's Caster Building at 37th Street and Locust Walk, was given through the Program for the Eighties to honor Dr. Lazarus and her husband. Dr. Lazarus is a 1938 alumna of the school who has practiced social work for some 50 years and who now serves on the SSW Board of Overseers.

THINGS TO DO

LECTURES

Dr. O.M. Salati speaks on *Education, Environment, and Destiny* at 3 p.m. May 5. His lecture is the second in a new series to be given by faculty members who have attained full professorship in the College of Engineering and Applied Science; Alumni Hall in the Towne Building.

A panel discussion by women from the athletics department called *We've Come a Long Way, Baby; Where Do We Go From Here?* is the program at the May 7 Women's Faculty Club meeting. Bring sandwiches; coffee, tea, and fruit are 50¢. Call Adelaide M. Delluva, Ext. 7866, if you are planning to attend. Noon in Weightman Hall South.

Education is the focus of the May 10 KYW-Newsradio *Course of Human Events* program, part of the series sponsored by KYW and the University. Panelists include Fred Hechinger of *The New York Times*, Albert Shanker of the American Federation of Teachers, and Donald Rappaport, chairman of the Pennsylvania State Board of Education; 7 p.m.

Earl Leichty, curator of Akkadian language and literature, lectures on

A-3 ASSEMBLY ELECTIONS

The A-3 Assembly will elect a spokesperson, two steering committee members, and several coordinating committee members at its meeting Tuesday, May 25. All A-3s are eligible for the posts, but no one can be nominated without his or her permission. Nominations should be sent to Phyllis Friedman, 217 Vet School/H1 before May 14. More details will be published in the next A-3 newsletter.

Assyriology in the University Museum's bicentennial lecture series; May 12, 3 p.m., Rainey Auditorium, Museum.

FILM

PUC films this week are *The Prisoner* (May 5), *Phantom of the Paradise* (May 6), "Superman" TV episodes (May 7), and *Smile* (May 8). All are in the auditorium of the Fine Arts Building; times are 7:30 and 10 p.m.; \$1.

Grand Illusion by Renoir and *Jules and Jim* by Truffaut are the May 11 and 12 Christian Association offerings; 7:30 and 9:30 p.m.; \$1.

EXHIBITS

Photographs by David Lee Quick and Kenneth Field are on display through May 12 in the *Harnwell House Gallery*; hours are noon to 6 p.m. daily except Monday.

An exhibition of the *autographs of all the signers* of the Declaration of Independence opened yesterday in the rare books department of Van Pelt Library, where it will be until August 31. Hours are 9 a.m. to 5 p.m. weekdays.

Designs for living, for families and neighborhoods, are part of the *Architecture at Penn* exhibit at the ICA gallery through May 12. Students' work appears with the creations of notable professors Cret, Kahn, and Lericolais; weekdays 10 a.m. to 5 p.m. (Tuesdays till 7), noon to 5 on weekends.

MIXED BAG

This weekend, May 6 and 7, the New Foxhole Cafe presents *Renaissance Movement*, a local jazz group, in its workshop series. Shows are 9 and 11 p.m.; \$2; 3916 Locust Walk.

Is it true plants have more fun? Come to the Morris Arboretum's *Plant Festival* this weekend and find out. On sale are unusual trees and shrubs, herbs, annuals, and cacti; continuous tours and demonstrations of tree care and propagation, bonsai, and insect control, too. May 7, 8, and 9, 10 a.m. to 4 p.m.; \$1 donation (children under 14 free).

The Medicine Show Ensemble from New York brings its show to the Christian Association May 13, 14, and 15 at 8 p.m. The performance is part of the Wilma Project Free Theatre, which is running through July 10. Admission is free, but donations will be accepted after the show.

W3ABT, we got a convoy. . . W3ABT has been invited to submit a letter on the distinction between the two forms of electronic communication, Thursday, May 6, when the members of Penn's *Amateur Radio Club* meet at 7 p.m. in room 214 of the Moore School. Club officer elections are scheduled. A big ten-four, good buddy.

THINGS TO HAVE DONE

What might have been. . . wish you'd been there. . . how did you miss it, darling? These and other phrases crossed our minds when we picked up the Annenberg Center's Artsfest brochure this week—and discovered that it was half over already and, worse, that all the events would be over before they could be listed in *Almanac*.

So we can only report to you that you missed the two-week Artsfest.

The moral to this story is: don't wait till your beautiful brochure is off press to drop *Almanac* a scrawl. The easy way to remember deadlines is: *Tuesday before the Tuesday of issue* is the rough working date. Earlier is better, because (a) we may fill up with contributions from early birds and (b) long articles are often committed weeks ahead. Sometimes copy received on Wednesdays, and monumental news learned on Thursdays, can be added—but only if there's space. If you know about an event in time to schedule a location for it, you probably know in time to get it in *Almanac*: all you have to do is tell us "who-what-when-where" (we never ask "why").—K.C.G./D.W.

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