

Students in Physics 101/102 can listen to lecture-type material on cassette tape recorders while manipulating laboratory equipment and working out problems at their own rate of speed.

Physics 101 Is Self-Paced Class

The typical introductory science course at Cornell University and elsewhere is characterized by a jammed lecture hall where students frantically take notes while a professor lectures — at a pace too fast for some and too slow for others.

The students then spend several hours a week in the laboratory collecting data on subjects often out of phase with the lectures. The lab assignments are analyzed by teaching assistants and returned a week or two later — by which time the student has forgotten the details of the experiments and hardly reads the instructors' comments.

Students often feel emotional distress and discouragement because tests confirm that they do not really understand the material presented so far. The course moves on, however, with the student expected to comprehend all that has gone before.

Even more demoralizing for many students is the knowledge that they will be "given" an acceptable grade, such as a B-, even though their

level of achievement is well below what it might have been.

Cornell University's Department of Physics recognized these problems — reflected in perennial student complaints — in 1969 and has since been tailoring its introductory physics program to the individual students in its normal 500- to 700-person classes.

With the cooperation of the University's Division of Science Education, the Physics Department has recorded lecture-type material on audio-cassettes and has made them available to students in an open laboratory. Students can stop a tape at various points to work on problems or to think about the material just presented. They can work for as long as necessary and can ask teaching assistants for help if they need it.

Other instructional aids — video-tapes, film loops, self-demonstrations, practice tests, displays and exhibits — have been developed and are available in the teaching laboratories. Student reaction, *Continued on Page 6*

Layoff Policy Is Changed; Additional Benefits Created

A new policy on reduction in force at Cornell University was approved by the Executive Committee of the Board of Trustees at its meeting yesterday in New York City.

The policy, formulated by a subcommittee of Cornell's Personnel Planning and Policy Board, makes several major changes. Current layoff policy, established in 1950, did not account for Affirmative Action. Under the new policy, layoff decisions will "be based equally on Affirmative Action, job performance and seniority."

Another change is to determine seniority, for purposes of reduction in force, on a University-wide basis instead of department-by-department. However, layoff decisions will be made on a department-by-department basis. For example, all other things being equal, a department facing a reduction in force would favor an employee with only two years experience in that department over an employee with three years experience in the department if the two-year employee had more total work experience at Cornell. However, these comparisons would be made by individual departments where layoffs were necessary, not on a University-wide basis.

The subcommittee on reduction in force was chaired by W. Donald Cooke, vice presi-

dent for research.

The new policy provides for additional benefits for terminated employees. For those employees with more than one year of service, the University will continue to pay the employer's contribution for health insurance for one year, if the employee elects to take a leave of absence and cannot find another position. Similarly, Cornell will pay the full cost of the required amount of life insurance for such employees.

Another major change in existing policy is that employees who wish to work a shorter week or year will be able to do so, with the permission of their supervisor, without prejudice to their future employment. Funds saved in this way will apply to a department's budget reduction. Previous policy did not encourage less than full-time employment for most positions, and savings from leaves of absence reverted to the University's general funds.

As another cost saving measure, the new policy reemphasizes current policy that "overtime pay should be kept to an absolute minimum," substituting compensatory time off instead.

The Office of Personnel Services is to play an expanded role in helping employees who are laid-off to find other positions both

within and without the University. Preference will be given to individuals on "termination leave" status for positions at the University, and departments hiring new employees will be required to indicate in writing why they did not hire a terminated employee referred by the Personnel Department.

Cooke said the subcommittee met 13 times during the spring semester and put in "long hours of study and debate." He said, "Extremely difficult decisions were involved. Probably not one member of the subcommittee is completely happy with every recommendation or every detail. This was an agonizing experience for all of us, but we believe the result is as equitable a system as possible."

The policy was also discussed at two meetings and endorsed by the full Personnel Policy and Planning Board. It was recommended to the Board of Trustees by President Dale R. Corson.

All exempt and non-exempt employees of Cornell University are covered by the policy except those with academic status, staff employed in bargaining units or at the medical units in New York City. The policy applies only to reduction-in-force situations, not those in which a person is terminated but the position re- *Continued on Page 7*

Executive Committee Approves

Equine Track for Research

The Executive Committee of Cornell's Board of Trustees yesterday approved plans to build a half-mile training track for equine research at its New York State Veterinary College Equine Research Park.

Funds for the construction, which will total not more than \$35,000, have come primarily from the New York State Council of Harness Tracks with additional funding from the New York Racing Association.

The track will be used for teaching and research in three main areas — gait analysis and exercise physiology; drug testing; nutrition and other physiological studies. The new facility will simulate conditions under which horses normally work, according to Dr. John Lowe, associate professor of surgery and coordinating manager of the research park.

The training track will allow researchers to study the metabolism and excretion of drugs in active horses and

also study drugs which are used legally on racing animals in some states. The drug research program, under the direction of Dr. George Maylin, is also exploring the therapeutic effect of certain drugs for lameness.

With a grant from the National Science Foundation (NSF), researchers from the Veterinary College and the Cornell College of Engineering are conducting an analysis of gait to determine the precise forces which stress major tendons and bones. To aid in this work a removable force plate to monitor the way a horse distributes its weight while running has been incorporated into the track design.

The track will also be used for studies of nutrition and other physiological parameters in well-exercised horses and in horses confined to stalls. Such studies, under the direction of Dr. Herbert Schryver and Dr. Harold Hintz, have already demonstrated a

marked difference in the retention of calcium and other minerals in stall-kept horses and in horses which have been exercised.

Students at the New York State Veterinary College pursuing D.V.M. degrees will be able to use the track as a learning area to observe lameness and other musculoskeletal disorders. Graduate students will be able to participate in the investigations being conducted at the research park.

The training track, which will be adaptable to the research needs of individual professors through the years, is the first phase of the Equine Research Park development. The facility eventually will maintain 200 horses and ponies and will be equipped with a field laboratory, brood mare and stallion barns and a specific pathogen free (SPF) pony unit for the study of respiratory diseases.

Summary Journal

Executive Committee Meets

The Summary Journal for the meeting of the Executive Committee of the Board of Trustees of Cornell University held May 14, 1975 in New York City follows:

NOTE: This summary journal, as released for publication, does not include confidential items which came before the meeting.

1. University Treasurer Arthur H. Peterson reported on the current status of the 1974-75 University budget. A deficit of approximately \$1.7 million is still projected.

2. The Executive Committee approved recommendations made by University President Dale R. Corson concerning technicalities of managing the Stanton Griffis Annuity Trusts and the William E. Guerin Trust.

3. The Executive Committee, upon the president's recommendation and with Investment Committee approval, amended its action of Sept. 10, 1974 establishing the specifics of long-term financing of the project extending chilled water lines to academic buildings. The amendment involved a 20-year advance from the Endowment Fund to complete the project's long-term financing.

4. The president recommended allocation of funds from General Contingency to cover increases in the costs of routine and preventive maintenance of endowed college academic facilities. He reported the increases are due to increased material and labor costs and the increasing incidence of breakdown. The president also recommended the appropriation of funds from the B&P Enterprise Reserve to cover the cost of new equipment for the Grounds Division and that the University administration be authorized to perform energy

conservation improvements in Uris Library, Kimball-Thurston, Malott, Olin, Carpenter, Phillips and Lincoln Halls, and Langmuir Laboratory Wing. The Executive Committee approved the allocation for maintenance, approved the equipment appropriation, and authorized the conservation improvements.

5. The Executive Committee approved policies, presented by the president with his approval, for the guidance of the University administration in effecting termination of employment for nonacademic employees whose positions are eliminated due to financial cutbacks. The policies were recommended by the Personnel Planning and Policy Board.

6. The Executive Committee, upon the president's recommendation, approved a proposal of the Joint Administrative Board of the New York Hospital-Cornell Medical Center calling for establishment of an ad hoc committee made up of University trustees and New York Hospital governors to conduct a study of the financial resources and requirements for the Medical Center.

7. The Executive Committee heard a report from the Buildings and Properties (B&P) Committee concerning the rehabilitation of the Central Heating Plant to meet State Department of Environmental Conservation (DEC) regulations for air and water quality. The minutes of the April 18, 1975 B&P Committee meeting were presented for information.

8. The Executive Committee approved a series of personnel actions which the president had recommended.

9. A report of construction grants awarded during the period March 19 through April 15, 1975 was presented for information.

formation.

10. The proceedings of the Joint Administrative Board of the Medical Center for March 25, 1975 were presented for information.

11. The Executive Committee adopted a schedule of committee meeting dates for 1975-76 which the president had recommended. Also, it approved and will recommend to the full Board of Trustees a schedule of board meeting dates in 1975-76.

12. The Executive Committee authorized the University administration to proceed with equine research facilities at the former Warren Farm which would be used to test the performance of horses under various running conditions in conjunction with several active research programs as well as for teaching purposes. Authorization was also granted for execution of a construction contract. Both actions had been recommended by the president.

13. The president reported recent developments in New York State Dormitory Authority financing. The University is proceeding with bonding through the authority for Lasdon House in New York City.

14. The president reported that a \$500 fine has been paid to the New York State Department of Environmental Conservation (DEC) in settlement of a DEC charge related to water pollution of Cascadilla Creek at the heating plant.

15. The president presented recommendations from the Committee on Memorials which were approved by the Executive Committee. One of the recommendations approved was the naming of the structural testing laboratory in Thurston Hall as the George Winter Laboratory in honor of the Class of 1912 Professor of Engineering who retires June 30.

16. The Executive Committee, upon the president's recommendation, elected June M. Fessenden-Raden vice provost of the University, effective July 1, with principal responsibilities for working with undergraduate deans, faculties and students in improving the quality of undergraduate education.

17. The Executive Committee, upon the president's recommendation, elected Donald G. Dickason dean of admissions and financial aid for a five-year term effective on or before July 1.

18. The president reported the appointment of Kenneth Greisen, professor of physics, as University ombudsman for a two-year term effective July 1. He reported further that Barbara M. Kauber had been reappointed judicial administrator for a second two-year term, effective July 1.

19. The president reported establishment of a media services unit in the Colleges of Human Ecology and Agriculture and Life Sciences effective June 1.

Job Opportunities
At Cornell University

The following are regular continuing full-time positions unless otherwise specified. For information about these positions, contact the Personnel Department B-12 Ives Hall. Please do not inquire at individual departments until you have contacted Personnel. An equal opportunity employer.

POSITION (DEPARTMENT)

Administrative Aide I (Human Development and Family Studies)
Administrative Aide I, A-18 (CRSR)
Administrative Aide I, A-18 (Secretary of the Corp.)
Administrative Aide II, NP-14 (Diagnostic Laboratory)
Administrative Aide I, NP-11 (Finance and Business)
Administrative Aide I, NP-11 (Avian Diseases)
Sr. Administrative Secretary, A-17 (Student Housing)
Administrative Secretary, NP-8 (Avian Diseases)
Administrative Secretary, A-15 (STS Program)
Administrative Secretary, A-15 (University Unions)
Administrative Secretary, A-15 (Personnel)
Administrative Secretary, A-15 (Architecture)
Administrative Secretary, A-15 (Johnson Museum)
Administrative Secretary, A-13 (Anthropology)
Administrative Secretary, A-15 (Applied and Engr. Physics)
Department Secretary, A-13 (University Libraries - Acquisition)
Department Secretary, A-13 (B&PA)
Department Secretary, A-13 (Student Housing)
Receptionist, A-13 (Arts & Sciences - Admissions)
Steno III, NP-9 (Div. of Large Animal and Services)
Steno III, NP-9 (NYSSILR)
Steno II, NP-6 (Entomology)
Steno II, NP-6 (Agronomy (Div. Atoms. Sci))
Steno I, NP-5 (Agricultural Economics)
Steno I, NP-5 (Agricultural Economics)
Trans. Clerk I, NP-6 (Small Animal Clinic)
Library Assistant, A-12 (University Libraries - Catalog)
Library Assistant, A-15 (University Libraries - Catalog)
Account Clerk I, NP-6 (Entomology)
Typist/Receptionist, A-11 (University Unions (9 Months))
Shipping Clerk, A-14 (Graphic Arts Service)
Cashier, A-11 (Dining Services)
Addressographer, A-11 (Graphic Arts)
Sr. Editorial Assistant, A-17 (CRSR)
Department Secretary, A-13 (Chemical Engineering)
Administrative Manager II, CP05 (Campus Store)
Cooperative Extension Spec. NS (Cooperative Extension - Voorheesville)
Cooperative Extension Spec. NS (Cooperative Extension - Oswego)
Cooperative Extension Spec. NS (Cooperative Extension - Chazy)
Health Physicist, CP05 (Life Safety Services)
Assistant Dean of Students, Student Dev. Spec. 3, CP05 (Office of the Dean of Students)
Director, Engr. Minority Pro. & Asst. Div., Engr. Admissions, CP05 (Engineering Dean's Office)
Manager-Financial Operations CP05 (B&P)
Comstaff Spec. (Telecommunications Specialist), CP05 (Office of Computer Services)
Coop. Exten. Specialist-Field Crops (Coop. Exten. Admin.-Alton (1 yr.))
Resident Director CP02 (5) (Dean of Students Office)
Director of Admin. Operations (College of Agric. & Life Sciences)
Graphic Designer Visual Spec., CP05 (University Publications)
Associate Admin. (Area Manager), CP06 (Dining Services)
Extension Aide (Community Service Education)
Dining Service Manager II, CP05 (Dining Services)
Business Manager, CP05 (Dining Services (July '75))
Dining Manager, CP05 (Dining Services (July 31, '75))
Dining Supervisor, CP02 (Dining Services)
Admissions Counselor (Div. of Academic Services, NYS College of Human Ecology)
Manager, Personnel Operations (Personnel)
Extension Associate (NYSSILR)
Counselor (Div. of Academic Ser. (1 yr.))
Associate Administrator, CP06 (Physical Education & Athletics)
Student Development Specialist, CP08 (College of Engineering)
Res. Support Specialist I, CP03 (SASS)
Extension Associate (Human Development and Family Studies)
Extension Aide (Agricultural Engineering (1 yr.))
Sr. Lab Technician (Biochemistry (1 yr.))
Extension Associate (3) (Div. of Nutritional Sci. (1 yr.))
Extension Associate (2) (Human Development and Family Studies)

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Communication Arts
Chairman AppointedSupport Staff Becomes
Media Services Unit

Chester H. Freeman, professor of communication arts at the New York State College of Agriculture and Life Sciences, has been appointed chairman of the Department of Communication Arts for a three-year term.

He will head the academic unit of the department which will include responsibilities for teaching research, and extension programs in the communication field.

The support staff currently associated with the Department of Communication Arts who provide editorial, graphic arts, radio, television, photographic and other services will be separated from the department and become a Media Services Unit.

President Dale R. Corson reported to the Cornell Board of Trustees yesterday that the

Media Services Unit will be established in the N.Y. State College of Human Ecology and the N.Y. State College of Agriculture and Life Sciences as of June 1. A director of the Unit will be announced later.

All items for publication in Cornell Chronicle must be submitted to the Chronicle office, 110 Day Hall, by noon on the Monday preceding publication. Only typewritten information will be accepted. Please note the separate procedure and deadline for calendar entries, as explained at the end of the Chronicle Calendar on the back page.



Cornell-Medical Complex

To Study Financial Resources, Needs

The Cornell-related medical complex in New York City will undertake a study of its financial resources and requirements. The establishment of an ad hoc committee on capital financing and financial planning was approved by the Executive Committee of the Board of Trustees meeting yesterday in New York City, and has been approved by the Board of Governors of the Society of the New York Hospital.

Included in the study will be the New York Hospital; the Payne-Whitney Psychiatric Clinic and the Westchester Division of the New York Hospital; the Cornell University Medical College, the Cornell University-New York School of Nursing and the Graduate School of Medical Sciences.

These programs are overseen by Cornell University and by the Society of the New York Hospital. In addition, the New York Hospital-Cornell Medical Center Foundation, Inc., exists to receive, invest and disperse funds for the benefit of these bodies.

In a joint announcement the University and the society said, "The financial interdependence of the three corporate entities has become significant and of critical importance. Neither the hospital nor the University can conduct or initiate programs which do not have financial implications for the other. Though each unit's principal focus is on the programs it directly operates and its present financial condition and projections for the future, this substantial and growing interdependence makes it logical and indeed essential that a joint study of these matters be undertaken."

The committee chairman will be Robert W. Purcell, chairman of Cornell's Board of Trustees and a member of the Board of Governors of the hospital. Serving with him will be three members of the board of governors of the society and three members of the University Board of Trustees. They are Frank S. Streeter, Edwin Thorne and John Weinberg from the society, and trustees Patricia J. Carry, Jansen Noyes Jr., and Nelson Schaenen Jr.

The formation of the committee results from a recommendation of Cornell's trustee ad hoc committee on capital financing, chaired by Stephen H. Weiss, which made its report last January. The Weiss report did not include the medical complex, but recommended that a separate and more thorough study be undertaken of the academic units in New York City.

The study will examine existing assets and liabilities of the medical complex, review past financial management and make recommendations on future management, estimate capital construction requirements, determine possible approaches to fundraising, and make recommendations on budget reductions which may be required.

Each unit of the center will undertake a concurrent effort to determine priorities and procedures for reducing costs and increasing revenues.

The study is expected to be completed by Sept. 15, in time to assist the budgeting process in the hospital for the calendar year 1976 and in the medical college for the academic year 1976-77.

SUNY, CU Become Sea Grant College

The presentation of 40-pound plaques to officials of the State University of New York (SUNY) and Cornell University marks the formal announcement that the two universities have become a

Sea Grant College.

An earlier statement that the two universities have achieved Sea Grant College status was made May 9 in Washington, D.C. by the United States Secretary of Commerce, Rogers C.B. Morton, who noted that, "The joint SUNY/Cornell Sea Grant program, now in its fourth year, has been an unusual and outstanding partnership between one public and one private university."

Sea Grant College status recognizes the federal government's commitment to the SUNY/Cornell consortium for sustained funding. It is the highest level attainable for a Sea Grant program.

This evening, a bronze plaque describing the cooperative nature of the Sea Grant program, will be presented by David H. Wallace, of the National Oceanic and Atmospheric Administration (NOAA), on behalf of the Secretary of Commerce, to

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Profile

Retiring, But not Shy

Elizabeth (Liz) Komaromi did more than clean the lounges and corridors of the Class of 1917 Hall as housekeeper there since 1956. She also captured the affections of some third-floor guys who lived there as freshmen two years ago. Monday evening, some dozen of them, now juniors, took her to dinner to let her know just how much they appreciated her.

Her upcoming retirement this June provided the occasion for "my boys," as she calls them, to arrange the surprise celebration at Taughannock Farms Inn. After dinner, they presented her with an engraved plaque which read in part: "presented to Elizabeth Komaromi with love and appreciation..."

Why the remembrance? "She just takes a genuine interest in everyone," said Michael "Guv" Hilf, one of her "boys." "If you have a problem and she finds out about it, she'll come up to you. She's a very empathetic person....everyone wanted to reciprocate and take that genuine interest in her."

Hilf, now a junior, is a government major (hence the nickname). He and Joseph Casavieri lived on the third floor of the dormitory their sophomore year as well, with Liz, as they all call her, still second-mothering them. "She never got mad at anyone," Casavieri said, "even if 'Guv' left the stove dirty."

"Once in a while, if your room was really messy, she'd come in and say 'Clean your room, what's the matter with you?'" Casavieri said. "She was like a grandmother to all of us."

Liz Komaromi admitted, "I just was so interested in them all... if I could give them any advice I tried to do that. You know how kids are."

Many freshmen brought problems to her "like one of the boys who wrote a poem about me called 'Mother to All' and I still have that poem. He was in 1433. I know his name was Dave...that was a good 10 years ago or better," she said.

Casavieri concurred that she had a "phenomenal memory" for each freshman's name and where he lived and even who had lived across the hallway. One of Liz Komaromi's "boys" at Taughannock Farms Inn was Richard (Dick) Holtzman, whose



Elizabeth Komaromi smiles at two of her "boys", Michael Hilf, left, and Joseph Casavieri.

father, Class of 1939, had lived in the Tau Kappa Epsilon (TKE) house where her own father had worked for 37 years. When she saw the "Holtzman" name again two years ago, she wondered if this might not be his son. It was. The elder Holtzman told her, according to Hilf, "If he acts up, you just take a shoe to him..."

"If your parents came up for a visit, she'd greet them and remember who they were," Hilf said.

Liz Komaromi, who spent her own 62 years in the same house in downtown Ithaca will continue to live there with her widowed mother.

"I think I'll get homesick when fall comes and I won't be there," she said, referring to the new academic year and its new crop of students in Class of 1917 Hall.

Hilf and the rest of her "boys" will remember Liz Komaromi for a long time to come. "I'd say she's a second mother to us all," Hilf said.

—Margaret Condon

National Academy of Sciences

Three Professors Elected

Three Cornell faculty members have been elected to the National Academy of Sciences, an independent organization of scientists and engineers which advises the federal government in many specialized areas.

Membership in the National Academy is considered by many to be the highest honor given an American scientist by an American institution.

Elected at the Academy's recent annual meeting in Washington, D.C. were Jack C. Kiefer, the Horace White Professor of Mathematics; Robert H. Whittaker, professor of biology in the Section of Ecology and Systematics, Division of Biological Sciences, and Kenneth G. Wilson, the James A. Weeks Professor of Physical Sciences. They were among 84 new members elected, bringing the total membership in the Academy to 1,134.

Kiefer, a specialist in mathematical statistics, is the author of many papers in probability theory and statistical

inference. He essentially founded the subject of "optimal designs," and his work in this field has stimulated considerable research by others.

Associated with Cornell since 1951, Kiefer has served with the National Science Foundation Math Advisory Board and the National Research Council Advisory Committees on Statistics and Applied Mathematics. He is a fellow of the American Academy of Arts and Sciences, a member and former president of the Institute of Mathematical Statistics, and a member of the American Math Society and the American Mycological Society. He also has been a Guggenheim fellow and a Wald lecturer.

Whittaker, an ecologist, has written many scientific articles on plant ecology, and some on animal ecology and the interactions of plants and animals. His research contributions include development of "gradient analysis" as an approach to natural communities, and of dimension analysis of forest

productivity. He is the author of "Communities and Ecosystems" and an editor of three other books. In 1966 he received, with W.A. Niering, the American Ecological Society's Mercer Award for the outstanding paper in the preceding two years — a study of the vegetation of the Santa Catalina Mountains.

Kenneth G. Wilson is a theoretical physicist who most recently has been reviewing and refining the theories of sub-atomic particles, particularly those known as "quarks." He has also worked on phase transition in liquids and solids and on impurities in metals.

In 1973, he received the Dannie Heineman Prize for Mathematical Physics awarded by the American Physical Society and the American Institute of Physics. He was also cited by the Saturday Review last December as one of the nation's most promising young scientists.



CORNELL
CHRONICLE

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Chronicle Comment

Chronicle Comment is a forum of opinion for the Cornell community. Comment may be addressed to Elizabeth Helmer, managing editor, Chronicle, 110 Day Hall.

Group Protests Parking Change

Hays letter

(The following letter, addressed to W. H. Richards, assistant director of Transportation Services, was submitted to appear in the Chronicle.)

Dear Mr. Richards:

On April 18, 1975, your office distributed a notice to some of the holders of U2 parking permits notifying them that vehicles with U2 permits which are not parked between the Synchrotron entrance and the visitor parking area on the East end of Tower Road would be ticketed for illegal parking. This is a change of the policy which has been used for the past two years.

We feel that redefining the U2 area after the cut off date for refunding payment for returned parking permits is unfair and in this instance refunds for U2 permits should be given if requested.

Prior to April 28, 1975, vehicles bearing a U2 permit were allowed to park from the visitor's parking area west on Tower Road to the "U Permit Only" sign across from Bradfield Hall. According to the map found in "C.U. Regulations Governing Motor Vehicles" there was no clear cut dividing line designating U2 and U areas on Upper Tower Road, so the sign across from Bradfield Hall served the purpose as there were no other signs indicating a dividing point prior to April 28, 1975.

By compressing the U2 area into a smaller number of parking spaces, many of the present holders of U2 permits can not park in the smaller, recently designated area, so therefore, they are forced to park in the A or B lots. By admission of your office the U2 permits have been oversold. Therefore, you were aware when spaces were compressed that there would not be enough spaces for all permit holders to park. In order to obtain a parking space, employees are forced to arrive on campus one-half to one hour prior to their assigned working hours and face the danger of losing their parking space if they leave during the day.

If the object of decreasing the U2 area was to free up more U spaces for parking, you will find that these spaces were not used prior to the issuance of U2 permits and will not be used by U permit holders as a result of the change. The people who used the spaces were primarily employees of Rice, Bradfield, Emerson, Fernow, Mann and Warren Halls due to the fact that they could park closer to their work location. The net effect of changing the U2 parking area will be a lot of empty spaces next year which you could sell for \$81 each as U2 spaces. It should also be pointed out that although U permits have also been oversold, the

holders of these permits are faculty and exempt employees who have much greater flexibility in parking and working hours. They also generally are not expected to be on campus 100 per cent of the regular business hours. The small group of U2 permit holders are generally non-exempt employees, who have no parking flexibility and are expected to be on campus 100 per cent of the working hours.

We are requesting as a group that you provide refunds as requested above or that you extend the U2 parking area on the south side of Upper Tower Road, west of the Synchrotron entrance enough to accommodate the number of permits your office has issued, for the duration of this contract year. Then with the issuance of applications for next year very clearly define the U2 parking area for which individuals are purchasing the permit.

Carole Hays, Arlene Schoneman, Dawn Marshall, Eileen Callinan, Bonnie Bulger, Joan Bolden, Charles R. Miller, Anne E. Johnson, Ann Winkelblech, Abbie Leonard, Sandi Carr, Thomas Greweling, Judi Eastburn, Steffie David, Florence Brown, Peter Gregory, Joan L. Bowlsby, Lowana Davenport, Rebecca A. Coles, Emma Mulnix, Maribea Marranca

Taking Equipment Deprives Others

Editor:

I am glad that the equipment that was taken from the Theoretical and Applied Mechanics laboratories was partially returned, and I want to thank the person(s), whatever their reason was, for doing so. It restores my faith. However, I would appeal to the person who "borrowed" the 1531 AB Strobotac by General Radio Co. to return it the same way. This piece of equipment is brand new and, since our purchase, it has been recalled by the manufacturer for examination for a possible malfunction which makes this equipment hazardous. This can be verified by contacting the manufacturer. I would like to point out to the persons that by "removing" equipment from laboratories you are not "ripping off" a faceless corporation, but in fact are interfering with the educational opportunities of students. Also, you are making the job of employees who are responsible for such equipment much more difficult. Therefore, I hope that the three people who "borrowed" the cables from me and then absentmindedly walked off with them and the "counter" from Kim-

ball Machine Shop would return the same. Let's finish the term the same way we started, as friends.

*Steve Hanzlik
Technical Supervisor
Theoretical and
Applied Mechanics*

FCR Budget Committee Position Clarified

Editor:

In the Bulletin of the Faculty in last week's Chronicle, there appears a summary of a report that I made to the Faculty on the activities of the FCR Budget Committee.

I would like to elaborate on one sentence that is contained in this report. The report states that the FCR Budget Committee is convinced that the administration's budget analysis contains "honest figures arrived at by sincere and dedicated individuals." It should be pointed out that this statement, which is certainly correct, does not indicate that the committee either accepts or

rejects the validity of that analysis.

The members of the committee have discussed among themselves as well as with members of the administration many of the items that appear in the financial analysis and many of the assumptions that underlie the analysis itself. While we have not yet come to a position on our judgment of the validity of the analysis, we hope to do so and will present it to the administration for its consideration.

*Peter Stein
Chairman, FCR Budget Committee*

NSF Grants Extension Change

The Office of Academic Funding reports that the National Science Foundation will no longer process a grant extension request if it is submitted less than 30 days from the scheduled expiration date. Requests for such extensions must be endorsed by both the principal investigator and the institutional representative (the appropriate assistant director in the Office of Academic Funding).

COSEP Director Is Given Year's Leave

Delridge L. Hunter, director of the Committee on Special Educational Projects (COSEP) will step down from that position July 1 to pursue full-time a doctoral degree in the field of Education at the University.

Hunter requested and has been granted a leave of absence effective July 1 until Aug. 31, 1976, Provost David C. Knapp said, after which other University employment will be discussed.

Knapp said he is beginning immediately to discuss the matter of Hunter's successor as COSEP director with groups within the Cornell community. COSEP has been in operation since 1964 to provide educational opportunities to disadvantaged, primarily black, stu-

dents. Hunter has been director since 1970.

In granting Hunter the leave of absence, Knapp said, "I hope this arrangement will give you a full opportunity to complete the doctorate, which I know is a goal you have had for some time, and one which has been deferred because of your intense involvement with the minority education program on campus."

Hunter said he has been taking five courses during the spring semester, three of them for credit, on top of his duties as COSEP director and that "it has become evident that in order to complete my studies I will have to pursue that goal full-time during the coming academic year."

Job Opportunities

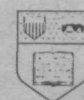
Continued from Page 2

Research Support Specialist (Ornithology (1 year))
Research Associate (SASS)
Research Associate (Food Science and Technology (Geneva))
Research Associate (Poultry Science (2 yrs.))
Research Associate (2) (Geological Sciences)
Research Aide II, A-16 (Psychology)
Research Technician, A-21 (Biochemistry)
Research Technician, NP-10(2) (Vet Pathology)
Experimentalist I, NP-11 (Vegetable Crops)
Lab Tech. (2) NP-11 (L.A.M.O.S.)
Lab Technician, A-15 (Biochemistry (1-2 yrs.))
Lab Technician, A-15 or A-17 (Biochemistry)
Lab Technician I, NP-8 (Avian Diseases)
Lab Technician I, NP-8 (Vet Pathology)
Postdoctoral Research Associate (STS (1 yr.))
Postdoctoral Associate (2) (Genetics, Dev. & Phys. (1 yr.))
Postdoctoral Associate (7) (LASSP (1-2 yrs.))
Instructor-Modern Dance (Women's Physical Education)
Cook I, A-15 (2) (Dining)
Mason (B&P)
Custodian, A-13 (Dining Services)
Custodian, A-13(2) (Student Housing)
Food Science Worker, A-11 (Dining Services)
Dishmachine Operator, A-13 (Dining Services)
Synchrotron Operating Technician (Lab of Nuclear Studies)
Milk Plant Man, NP-7 (Food Science)
These are all permanent full-time positions unless otherwise specified.

PART-TIME AND TEMPORARY POSITIONS

(All Temporary and Part-time positions are also listed with Student Employment)

Administrative Clerk, A-16 (Regional Science Center for Urban Development (temp. f/t))
Data Clerk, A-13 (Biochemistry (temp. p/t))
Typist (B&PA (perm. p/t))
Service Clerk (Office of University Counsel (temp. f/t))
Extension Sec. - Steno, NP-10 (NYSSILR (NYC) (temp. p/t))
Extension Specialist (NYSSILR (temp. f/t))
Statistics Clerk (Agricultural Economics (temp. p/t))
Research Associate (Agronomy) (1 yr.))
Research Technician II, NP-10 (Plant Breeding & Biometry (temp. f/t))
Lab Technician - Hourly (Biochemistry (temp. f/t or p/t))
Research Technician (Natural Resources (temp. f/t))
Technical Aide, NP-9 (2) (Natural Resources (temp. f/t))
Technician (Sociology (temp. p/t))
Keypunch Operator (SASS (temp. p/t))
Preparator - Temp. Service (Physical Biology (temp. f/t (1-76))
Field Assistant NS (Plant Pathology (temp. f/t) Geneva)
Field Assistant (Entomology (temp. f/t))
Coding/Clerical (2) (SASS (temp.p/t))



Infrared Study Shows Campus 'Hot Spots'



Heat loss from steam pipe leaks and poor roof insulation comes sharply to light in a recent infrared aerial survey of the campus.

The survey, by the Ann Arbor, Mich., firm of Daedalus Enterprises Inc., was done in late January from a plane flying 1,000 feet over the campus, using special patented scanning equipment.

The primary purpose of the survey was to map the distribution of apparent energy losses from direct buried steam and condensate return lines, as well as rooftops.

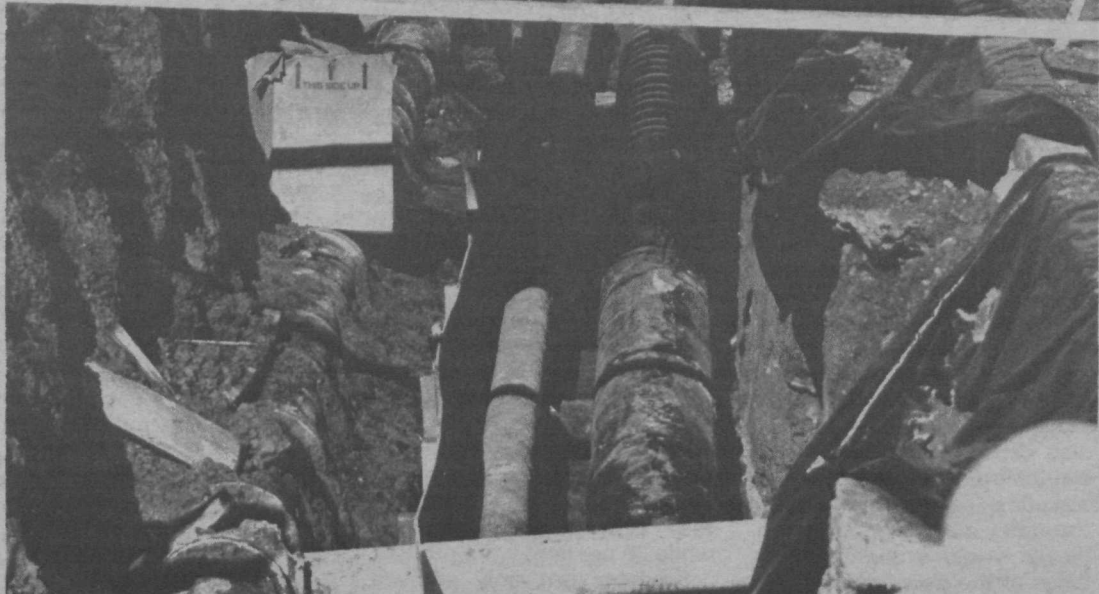
The finished report, which measures surface temperatures in calibrations of 2 degrees, with different tem-

peratures showing up different colors, comes with both black and white and color photographic strips.

Among the "hot spots" shown in the photographs are the College Ave. bridge, where a steam leak was repaired over the Spring vacation, and the line along the engineering quadrangle on Central Ave., which is currently being insulated.

A statement accompanying the photographic report says that a steam leak of 1/2-inch diameter under 90 pounds of pressure over a 12-month period, at \$4 per thousand pounds, would cost about \$18,000.

HOTTEST SPOTS — A copy of the infrared study, shown in black and white, pinpoints the heat escaping from the College Ave. bridge (lower right), from the steam line currently being insulated along Central Ave. (center) and from the roof of Sibley Hall (left). The Central Ave. excavation for the insulating job is shown below.



8th Sea Grant College

Continued from Page 3

Provost David C. Knapp of Cornell. About 150 friends of the program, including people from advisory committees, leaders of coastal industries, and local, state, and federal officials, are expected to attend the award ceremony at the Statler Inn.

Last night, a similar ceremony took place at SUNY Stony Brook. T. Alexander Pond, executive vice-president of Stony Brook and vice-chairman of New York Sea Grant Institute's Governing Board, accepted the bronze plaque.

Modeled on the federally-sponsored Land Grant Program of 100 years ago, the Sea Grant program is designed to enhance the development of marine resources, including their conservation, proper management, and maximum social and economic utilization.

Out of the 26 coastal states that have some form of Sea Grant Program, New York is the eighth state to be honored with a Sea Grant College. The other Colleges are the University of Rhode Island, the University of Wisconsin, the University of Washington, Oregon State University, Texas A&M University, the University of Hawaii, and the

University of California at San Diego.

According to Robert B. Abel, director of NOAA's National Sea Grant Program, "Sea Grant in New York is distinguished by two excellent programs that provide services of the highest quality to coastal citizens and industry. The first is its marine advisory service, with 13 specialists located in seven field offices along the Great Lakes and the Atlantic coast of New York State.

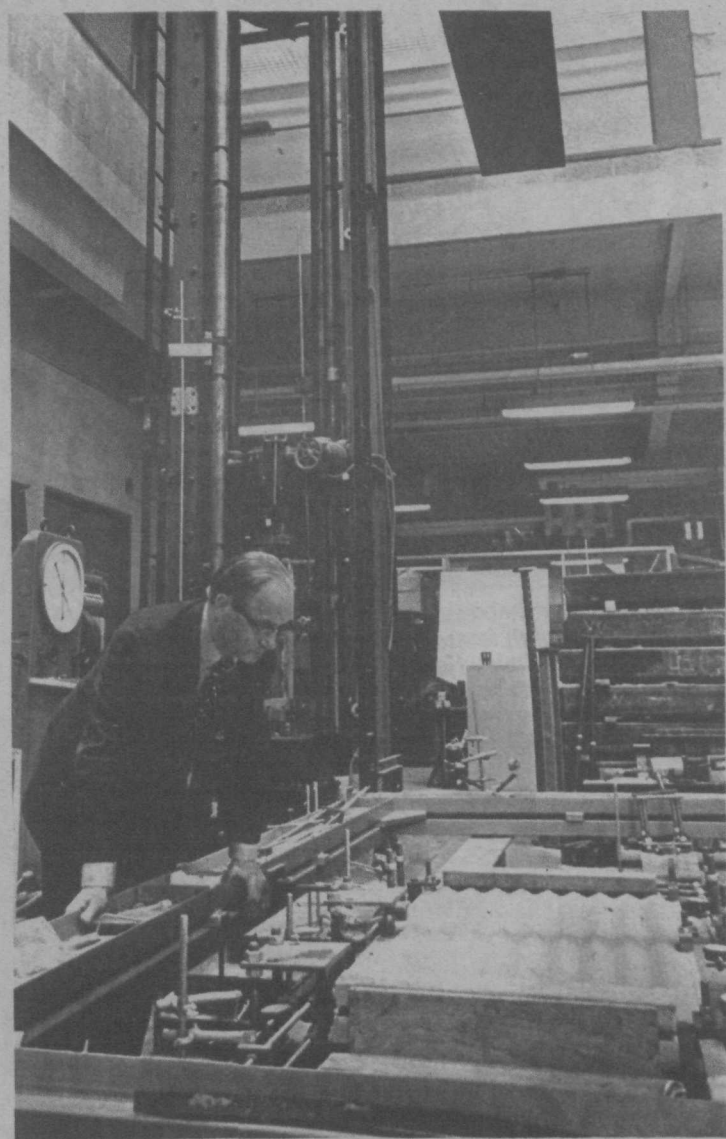
"The second is a research program, that works in close cooperation with the advisory service and with citizens' groups, to resolve the most pressing problems confronting the State."

Sea Grant's advisory service specialists work actively in the communities around their field offices in Stony Brook, New York City, Potsdam, Oswego, Brockport and Fredonia.

Headquarters for the advisory service is at the N.Y. State College of Agriculture and Life Sciences, Cornell, closely associated with Cooperative Extension. W. Keith Kennedy, dean of the College of Agriculture and Life Sciences, is chairman of N.Y. Sea Grant Institute's Governing Board.

George Winter, Class of 1912 Professor of Engineering

Light Gauge Steel Pioneer Honored



George Winter, the Class of 1912 Professor of Engineering, inspects the light gauge steel diaphragm in the structural engineering laboratory in Thurston Hall. The laboratory is to be named "in honor of George Winter, student, teacher and researcher in structural engineering at Cornell University from 1938 to 1975" and marked by a bronze plaque.

They came to Ithaca from throughout the country last Saturday — college professors, industry representatives, leaders of professional organizations, former students — to honor George Winter, the man who pioneered the use of cold-formed light gauge steel in construction and who developed the Cornell College of Engineering's Department of Structural Engineering into one of the best in the country.

Winter, the Class of 1912 Professor of Engineering, will become professor emeritus effective July 1. His contributions to structural engineering at Cornell will be remembered through the years, however, through his many books and research publications (a volume of selected papers was published for Saturday's day of commemoration) and through the structural engineering laboratory in Thurston Hall which will be named in his honor as announced by Cornell University President Dale R. Corson on Saturday.

Born in Vienna, Austria, during a time of great cultural and intellectual activity, Winter developed a lively interest in art, music and literature in his youth, but he always considered engineering to be the focus of his professional life.

He was educated in Austria and Germany, and his first job was building Vienna's first skyscraper apartment house. The building still stands, but the company that built it collapsed in the Great Depression.

After working for a few

years in Russia, Winter accepted a research fellowship at Cornell for the Spring, 1938 semester. His arrival was delayed by Hitler's invasions until summer — by which time his fellowship had lapsed.

Dean S.C. Hollister of the College of Engineering found him another research assignment on the fatigue of steel in ships — a job which paid a modest \$1,000 a year.

Winter entered the field in which he is now world-famous by accident. "I was trying to support a family of three on \$1,000 a year and asked Dean Hollister for a raise. He asked if a few hundred a year would help. I said it would and so began a new research program in light gauge steel."

He has been involved in this field, with the support of the American Iron and Steel Institute, ever since and has helped develop an entirely new way of using steel in structures which has spread throughout the world.

As chairman of the Department of Structural Engineering for 21 years, he has also made significant contributions to the fields of reinforced concrete and microcracking of plain concrete.

Winter served as chairman of the Cornell Faculty Committee on Music for three years, as chairman of the Lecture Committee for three years, and as a member of the Campus Planning Committee since its inception.

Among his many honors, Winter holds the 1971 Henry C. Turner Medal awarded by the American Concrete Institute for his contributions to concrete construction technology, research and education; the Leon S. Moiseiff Award and the J.J. Croes Medal of the American Society of Civil Engineering;

the Technical Meeting Award of the American Iron and Steel Institute. He has also been elected to the National Academy of Engineering and has been a Guggenheim Fellow.

Despite his many research and professional accomplishments, he is remembered most fondly by many of his former students as a teacher. In the preface to the collected papers presented at Saturday's festivities, Floyd Slate, a colleague in structural engineering at Cornell wrote, "The clarity, the stimulation, and the dedication — all of these things and more make his teaching both a challenge and an excitement."

Upon retirement, Winter will continue to do some consulting in his field "because I don't want to let these people down," but he and his wife Anne are looking forward to devoting more time to their non-professional interests — music, art, literature and pre-historic archaeology.

He will also remain active in many advisory committees and some professional societies including the Column Research Council of which he is chairman, the Permanent Committee of the International Association of Bridge and Structural Engineers and its Committee on Tall Buildings.

He will also teach a course this summer in Cornell's Alumni University on "Monumental Buildings, Earliest and Latest: Social Implication," where he will talk about the neolithic collective tombs and the modern skyscrapers.

Winter and his wife will continue to live in Ithaca because they feel "there is no better environment." They will also spend time at their cottage on the coast of Maine.

Self-Teaching Physics Lab Assessed

Continued from Page 1

while varying considerably, has been extremely favorable, and the physics staff has continued to improve these materials.

When students feel they have mastered a unit, they arrange to take "mastery tests" which, with subsequent tutoring, become important instructional devices as well as evaluation mechanisms.

Course organizers realized that physics students are individuals who learn at different rates and have different intellectual skills, study habits and aspirations. They have accommodated these differences in the self-paced format of the course.

Carl Naegele, who has been active in the development of the course for the past several years, has used the course as a medium for conducting educational research and has also carried out an extensive evaluation program. Student attitudes, carefully monitored through questionnaires, indicate wide student acceptance of the new format and a general feeling that the

benefits of the course far outweigh any disadvantages.

A typical student survey taken at the end of the Physics 101 course last semester (in which 525 of the 550 students enrolled in the course completed a questionnaire) showed that a full 72 per cent liked the flexibility offered in the instruction and testing format.

Most students (82 per cent) felt a sense of accomplishment after achieving satisfactory performance on each unit exam. They found the material interesting and were motivated to really understand the concepts being presented. Most students (68 per cent) also felt that their final grade fairly reflected the effort they had put into the course.

Particularly significant, considering the size of the course, 45 per cent of the students felt that they had received more individual attention in Physics 101 than in most courses at Cornell. Only 25 per cent felt they received less attention while 30 per cent were neutral.

Students not only enjoyed physics more; they learned

more. On traditional examinations, the achievement had averaged between 40 and 50 per cent. On exams of at least equal difficulty under the new format, the average student completed nine out of 10 instructional units with a minimum achievement level of between 75 and 80 per cent — even with no partial credit given for incorrect answers.

The staff also found that teaching a self-paced course for an average of 600 people offered logistical advantages — more efficient use of staff and physical facilities and reduced laboratory equipment costs since fewer set-ups were required.

The course is continually undergoing change as organizers learn more about how students respond to various aspects of the course and how learning rates for students of varying interests and aptitudes are influenced by the use of certain instructional techniques.

The recently renovated learning and testing laboratories are located on the third floor, north wing, of Rockefeller Hall. Visitors are always welcome.



Local Artist Exhibited

The portrait painted in 1972 by local artist Edward G. Thompson is one of 40 paintings and five drawings he has done in the past 10 years now on exhibit through July 6 at the Herbert F. Johnson Museum of Art.

New 25-Inch Telescope Dedicated

A new 25-inch reflecting telescope for Cornell use has been completed for a fraction of its commercial cost through the cooperation of Cornell space scientists, high school students working at the Board of Cooperative Educational Services (BOCES) machine shop in Ithaca and local industry.

The new telescope and the Mount Pleasant observatory which houses it will be officially dedicated the "Hartung-Boothroyd Observatory" today. M. John Hartung ('08) and Clinton B. Ford, a philanthropist and secretary of the American Association of Variable Star Observers, donated the funds necessary to construct the observatory.

Ford made his gift in honor of the late Samuel Boothroyd, who served as Cornell professor of astronomy from 1921 until his retirement in 1942 and as chairman of the astronomy department for many years.

The telescope, with which one can see objects 10,000 times fainter than the faintest star visible without telescopic aid, was completed for about \$10,000. A comparable piece of equipment manufactured commercially would have cost between \$80,000 and \$100,000.

The new telescope and the electronics for it were de-

signed by James Houck, associate professor of astronomy, and George Gull ('72). Gull is now involved in research at the Center for Radiophysics and Space Research.

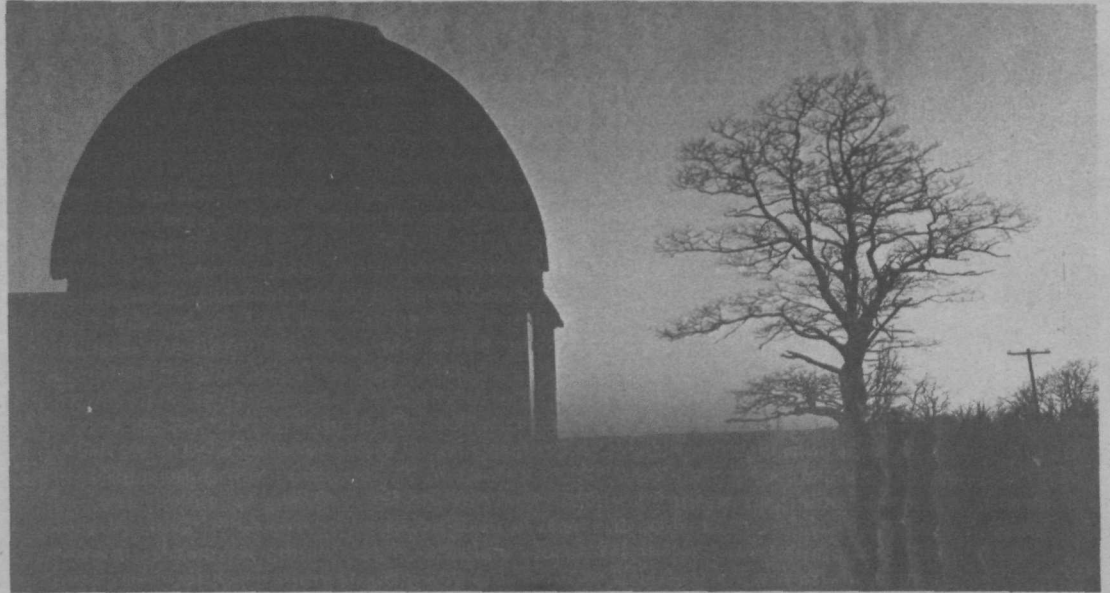
James Greene, director of the BOCES machine shop, agreed to have his high school students machine most of the parts for the telescope. Piece by piece the telescope components were delivered to Cornell for testing and assembly.

The completed instrument weighs more than 2,400 pounds; the primary mirror alone weighs nearly 200 pounds. Despite its weight the telescope can be directed easily to any point in the sky.

Once an object is located, a small motor turns the telescope to follow the object across the sky. Digital indicators display the telescope's pointing direction at all times, making it easy to move the telescope quickly from one object to another.

"BOCES students worked on the telescope project almost constantly for two years and did the bulk of the machine work," Houck said. "Therm Inc. of Ithaca donated its time and facilities for several high-precision machining operations."

The reflecting telescope is located in a 20-foot-square ob-



The Mt. Pleasant Observatory, a Cornell-BOCES-industry cooperatively built telescope will be dedicated today.

servatory on Mount Pleasant at the old WHCU radio transmitter site. One of the concrete piers previously used to support the radio tower provides a stable foundation for the telescope.

The Mount Pleasant telescope project began in the early 1930s when its main reflecting mirror was poured at the Corning Glass Works as a small test sample of the glass to be used for the Mt. Palomar 200-inch telescope.

"Although the mirror was finished during the 1930s, little

else was done until 1971 when we decided to complete the instrument," Houck explained.

He added that the University's other telescope in the Fuertes Observatory is a 12-inch refractor, that is, it uses lenses to capture and focus light. Because glass lenses absorb infrared light, refractors are useless for testing infrared sensitive devices. In addition, dormitories and other buildings built near the Fuertes Observatory over the years have hindered the use of the older telescope.

The new telescope will be used both for teaching and research purposes. Graduate students will use the telescope to test equipment such as spectrometers, photometers and infrared detectors which they design as part of their thesis research.

Pre-testing their equipment at Cornell will enable students to work at top efficiency when they use the nation's large observatories, where telescope time is difficult to obtain and must be reserved months in advance.

Major Changes Are Made in Layoff Policy

Continued from Page 1
mains.

The policy will take effect July 1 and is not applicable to layoff decisions already made or to be made as part of the planning process for fiscal year 1975-76, which begins July 1. However, its benefits are effective immediately for all employees who have already been or will be terminated on July 1.

Serving on the committee were William D. Gurowitz, vice president for campus affairs; Ramon E. Rivera, Affirmative Action officer; Margaret H. Stone, representative to the Personnel Policy and Planning Board from the Provost's Advisory Committee on the Status of Women and Diedrich K. Willers, University personnel director. The subcommittee was appointed by Arthur H. Peterson, chairman of the Personnel Policy and Planning Board. In addition, Cooke asked Arthur W. Brodeur, director of University relations, and Neal R. Stamp, University counsel, to participate in the committee's work.

The new policy statement follows:

APPLICABILITY

1. These policies are applicable to exempt and nonexempt employees but not to those with academic status, staff employed in bargaining units, or at the Medical College, the Graduate School of Medical Sciences, and the School of Nursing. They are applicable only to those situa-

tions in which a reduction of force is necessary (as defined by a position being eliminated or consolidated). They do not apply to those situations in which a person is terminated but the position remains.

2. The decision as to staffing needs of a department and the choice of the type of position to be eliminated is the responsibility of the department head.

DEFINITION OF DEPARTMENT

3. A department is defined as a separate budgetary unit.

FACTORS TO BE CONSIDERED IN REDUCTION IN FORCE

4. When the choice among persons to be laid off must be made, the decision is to be based equally on affirmative action, job performance, and seniority. (The three items are listed in alphabetic order to emphasize their equality.) The decision is made by the supervisor and reviewed by his or her superior before the person is notified. In the case of veterans who had left Cornell employment to enter the service and have other than a dishonorable discharge and who accept re-employment within 90 days of discharge, military service must be included as part of seniority service.

a. Affirmative action considerations are applicable to those persons who hold their position as a result of affirmative action procedures. The thrust of affirmative action for females is more concerned

with placing women in non-traditional positions with greater responsibilities than with numbers.

These are the factors that should be considered in the case of females. In the case of minorities, the thrust also includes increasing the percentage of minorities employed and therefore the consideration should be much broader. In addition to the above, consideration should be given to handicapped employees, disabled veterans, and Vietnam-era veterans since all of these categories are included in affirmative action regulations.

b. The job performance aspect of the decision is judged by the person's supervisor.

c. Seniority is determined on a University-wide basis but is applied only to personnel within a single department.

5. Employees who are to be terminated should be informed of the following avenues for consultation or appeal:

a. Ombudsman's Office

b. In cases of alleged discrimination, the Affirmative Action Office.

c. University Grievance Procedure.

COST SAVING MEASURES

6. Overtime pay should be kept to an absolute minimum. Where overtime work is necessary, time off during the same working week should be the usual form of compensation.

7. Employees who wish to

work a shorter week or year should be able to do so, with the permission of their supervisor, without prejudice to their future employment. To facilitate such arrangements, the work-week for some benefits should be reduced from 35 hours to 30 hours. It is recommended that funds saved in this way be applicable to a department's budget reduction.

ADDITIONAL BENEFITS FOR INDIVIDUALS AFFECTED BY REDUCTION IN FORCE

8. Additional benefits for those affected by a reduction in force are as follows:

a. That, after one year of service, the employee may continue full health insurance with the University continuing to pay the employer's contribution for the one year the individual is on leave of absence status or until he or she accepts employment.

b. That for employees with more than one year of service, Cornell pay the full cost of the required amount of life insurance for the one year the individual is on leave of absence status or until he or she accepts employment. This is to apply for both endowed and statutory employees.

c. That the present extramural course and training benefits be extended for all employees for the duration of leave of absence status. A waiver is to be added to the present policy which would enable laid off employees to petition to take more than four

credits per semester at no or reduced cost.

d. That employees have access to a program of assistance for those searching for new external positions, as developed by the Office of Personnel Services.

9. That the Office of Personnel Services play an enhanced role in placing those affected by a reduction in force in other vacated positions in the University.

10. a. It is recommended that individuals on termination leave status have priority in being referred to open positions. Positions are to be posted as soon as they are received. The top of the job posting will indicate that preference will be given to individuals on termination leave status.

b. Hiring departments will be required to indicate in writing to the Office of Personnel Services why they have not hired a referred individual on terminal leave.

11. The Office of Personnel Services is directed to prepare a single statement of all employment benefits available to an individual on terminal leave of absence, including those in paragraph 8 above.





Alternative Energy Exposition

Students from the Center for Alternative Energy and interested observers inspect a student-built sailing windmill during the first annual Alternative Energy Exposition held on the Arts Quad and in Goldwin Smith last Saturday. Using readily available materials — automotive parts, old oil drums, pipes — the students also constructed a wind-powered Savonius rotor and a solar hot water heater. The day-long exposition featured equipment demonstrations and workshops on using wind and sun power and other unconventional sources of energy.

Task Force Slates Hearing

Task force No. 23, University Unions, will hold an open hearing at 1 p.m. tomorrow, in Uris Hall 498, task force chairman Richard H. Penner has announced.

The charge to the task force follows:

1. What are the programs and operations of University Unions? What are the costs, both direct and indirect, of each? (Are accounting and budgetary techniques now used adequate to permit answers to these questions? If not, in what respects are improvements needed?)

2. What is the relation of various programs and operations of University Unions to (a) the fundamental missions of teaching and research, and (b) the general welfare and happiness of the community?

3. Should user charges be utilized more extensively than they are now?

4. Are present costs, those unreimbursed by user charges, justified in terms of answers to question 2? What level of general University support to University Unions is justified?

5. If any support of University Unions is justified, what are the proper criteria for determining the overall level of support for University Unions? Applying those criteria, should any existing programs or operations be discontinued altogether or reduced substantially in scale? Identify the programs and explain the rationale.

6. Should any of the programs or operations be merged, split or otherwise reorganized to function more effectively? Are the University

Unions being administered in as cost-effective a manner as possible?

7. Suppose that after all economies resulting from answers to the above questions have been achieved, budgetary reasons require a further 15 per cent reduction in unreimbursed expenditures by University Unions. How

should such reductions be achieved? What priorities should be maintained within the 15 per cent reduction?

(This question will be relevant only if answers to prior questions do not recommend an entirely self-supporting operation, taking into account both direct and indirect costs.)

Course on Time Use Available to Employees

According to a retired Cornell University associate director of agricultural extension, most of us tend to be "weekly-wise" but "minute-foolish" in our use of time. We also, he said, do not do long-range planning well from the standpoint of effective use of time.

Who is this "father-time"? He is Arthur Durfee, who periodically interrupts his retirement to teach "Effective Use of Time" to Cornell employees through the Office of Personnel Services.

The course will be offered again on four Mondays in June, Durfee said.

When he began teaching the course last spring, Durfee found employees "resisted saying 'here is my time problem'." In retrospect, he said, "I realized most people don't know what the problem is." In subsequent courses he has asked employees to keep a time-log for a half-day or for a specific activity.

A primary result of the course, he said, is an "increased time-consciousness."

Durfee focuses specifically on minutes and life-range goals.

His main purpose is to "help people to feel more on top of their work and to get more satisfaction out of it."

Successful time management often means being conscious of the options, he said, including making blocks of time for creativity and scheduling the "nitty-gritty" tasks for lower personal energy levels.

Durfee also tries to help his employee/students determine why they want to manage their time more effectively, for example, to have more time with their family or to accomplish more.

"The focus of the course is on effectiveness rather than efficiency," said Durfee. "A person can be very efficient about the wrong tasks."

Employees interested in taking the course should contact Linda Tewes, Training and Development Section, Office of Personnel Services, B-12, Ives Hall, 256-4869. The fee for the course to sponsoring departments is \$25 per employee.



CIVITAS Grateful For Volunteers From Cornell

With classes ended and final exams consuming the next few weeks, CIVITAS would like to take this opportunity to express its sincere appreciation to the Cornell community for the many dedicated volunteers who have given so generously of their time and effort during these past months. Undergraduates, graduates, staff members, spouses of Cornellians — their enthusiasm and skill have been a welcome and inspiring addition to the variety of Ithaca community human service agencies which rely on volunteers more each year.

Most rewarding of all has been the opportunity for so many to become involved directly in their "adopted" community by responding to and meeting the needs of individuals of all ages. It is hoped that the process has been a mutually beneficial one, and that the volunteers have gained knowledge, insights, and personal satisfaction from their work.

To all the graduating Seniors, we wish you the best of luck, and hope you will continue to find service in your community meaningful and rewarding.

To returning students, we hope you will have a happy vacation and return to us with renewed enthusiasm in the Fall.

With the departure of the students, the Ithaca community will be depending on its more permanent residents for volunteer assistance during the next few months. If your time is limited, but you can be of help on a short term basis, please know that your help is most welcome and needed.

Below are some of the current requests for volunteer help. To respond to any of them, or to get information about other volunteer needs in the community, please call CIVITAS, 256-7513, Monday through Friday from 11 a.m. to 4 p.m.; or call Voluntary Action Center, 272-9411, Monday through Saturday from 9 a.m. to 1 p.m.

Ithaca High School needs volunteer tutors in chemistry, biology, physics, geometry, advanced algebra-trigonometry to work with individual students. Times and days vary within school hours.

Cornell Health Project needs a volunteer tutor to work with a young adult in developing spelling skills. Time can be any evening hours that are convenient to the volunteer.

Big Brother/Big Sister needs volunteers to provide friendly companionship for lonely children; either taking over as summer replacement for a college volunteer, or to take on a continuing permanent friendship. Just a couple of hours a week, on a regular basis, can make a valuable difference in some child's life.

Voluntary Action Center needs volunteer typist-receptionists to assist in the office on Tuesday, Wednesday or Thursday, or any combination of these days, from 9 a.m. to 1 p.m.

4-H needs two volunteer group leaders; one to work with a small group of boys who meet at Immaculate Conception School on Wednesday, from 1 to 2:30 p.m. and one to work with a boys' and girls' group of 4th through 6th graders who meet at Central School, any after school hours and days possible.

Camp Iroquois for Handicapped Children needs volunteers to assist counselors in work with small groups of children in either arts and crafts activities or swim program. Camp will run from July 7 through Aug. 1, and volunteers may choose any days, Monday through Friday from 9 a.m. to 2 p.m.

Tompkins County Jail needs volunteers to teach crafts or art techniques. Thursday or Friday from 1 to 3 p.m.

Youth Bureau needs volunteers to assist with youth program, providing out-of-city field trips for in-city youngsters while providing adult-friendship companionship. Program runs on Saturdays from 10 a.m. to 4 p.m. with materials and transportation provided.

Academic, Financial Dateline

Thursday, May 15 — Last day to fill out a change-of-address card to avoid a finance charge on your Cornellcard bills (if your address changes for the summer), Cornellcard Office, 260 Day Hall.

Thursday, May 22 — Cornellcard bill payments are due. Monday, May 19 - Monday, May 26 (excluding Sunday) — Final Exams.

Reminders:

—Applications for BEOG 1975-76 are available in the Financial Aid Office, the COSEP Office and the following college offices: Arch., Art & Planning; I&LR; Hotel; Agr.; A&S and Human Ecology.

—Massachusetts State Scholarship Renewal forms are now in. Recipients, please come to the Financial Aid Office, 203 Day Hall to sign yours.

—June 1975 Degree Candidates: Financial accounts must be checked personally with Student Accounts, Bursar's Office, 260 Day Hall, before May 23. Candidates whose accounts are not cleared cannot be certified for a degree.

Leave Without Pay Is Time Off Choice

Cornell employees who want to take up to a year of time away from their job at Cornell University but who don't want to completely terminate their employment, might consider the following alternative: take a University or departmental leave without pay.

Some 100 Cornell employees have taken such leaves within the past nine months, according to Karl D. Keller, assistant director and benefits administrator, Office of Personnel Services. Reasons cited for requesting leaves include travel, education, military service, maternity, lay-offs, illness and finally "personal," a category which accounted for about 40 per cent of all reasons given.

The major difference between departmental and University leaves is that the former guarantees that the employee will be reemployed in the same department although not necessarily in the same job, Keller said, while the latter states an individual will receive preferential reemployment consideration at Cornell.

Employees eligible for leaves include all regular full- and part-time statutory and endowed personnel who have worked at Cornell at least a year.

A Cornell employee who took a year's University leave of absence from August 1973 to August 1974 is Katharine Smith. She requested the leave in order to accompany her husband, a linguistics graduate student, to a town in Sri Lanka while he conducted research for his doctoral thesis.

"The main reason I took the leave was to continue with Blue Cross/Blue Shield and Major Medical benefits," she said, "although I had to pay the full rate because the University does not contribute." She discontinued her life insurance policy, however, rather than pick up the cost.

She said another significant reason for taking a leave was to

receive preferential treatment in seeking reemployment. Although from her point of view she was not aware of preference, her rehire last August was three weeks after her return to Cornell.

Other reasons given by employees for taking a leave include protection of seniority, and continuity of service as it applies to such benefits as retirement, accrued vacation and sick leave, and the Cornell Children's Tuition Scholarship plan, Keller said.

Leave requests must be made by the employee in writing, specifying which type of leave is desired. Leaves are granted for up to three months at a time, Keller said, with option to renew for three additional periods of up to three months, totaling a maximum of 12 months. Requests for renewal of a leave period must be made in writing before each period expires.

Keller said most leaves are "long-term" or one year. Many spouses take a leave of absence when the other spouse takes a sabbatic leave; faculty also take leaves of absence to supplement or in lieu of a sabbatic leave. Most, but not all leaves, are taken at the convenience of the employee; however, the University may deny, in some cases, granting a leave without pay. "The reason Cornell grants a departmental or University leave is to maintain some connection or association with an employee who has been a valued asset to the University and whom it hopes will return," he said.

Processing a leave of absence through Personnel Services requires about two weeks, according to Keller. Employees with questions on departmental or University leaves without pay should contact Keller or Barbara Shedd, principal clerk, Personnel Services, B-12 Ives Hall.



Phi Gamma Delta Fiji Island Day

Brothers of Phi Gamma Delta and their guests celebrate Fiji Island Day smeared with purple grease paint and filled with purple passion. They have been doing it on campus since 1888 in an annual spring ritual initiated by the national fraternity in 1848. It starts with a breakfast and lasts all day — ending in various ways.

Summer Utility Use to Be Curtailed

Cornell University has announced that it must further curtail the use of utilities in order to minimize the impact of escalating costs on the University budget.

In the current year, the \$2,440,000 budget for utilities to the endowed academic and administrative facilities will be exceeded by \$350,000 unless mandatory controls are implemented immediately, a University spokesman said.

The projected deficit is caused by the failure to meet voluntary conservation goals, a major increase in electric rates on Jan. 1 and colder weather than expected in March and April.

Provost David C. Knapp has directed Noel Desch, the director of physical plant operations, to meet with all building energy coordinators to implement mandatory controls appropriate to the function of

each building. This could include curtailed use of chilled water and air-conditioning in various areas, among other measures.

In addition, Knapp directed Desch to turn off the heat to academic facilities on Friday, May 23, except where steam is used to control relative humidity and for process uses such as the production of distilled water and other related research purposes.

Tax Deferral Deadline Is July 1

Due to new federal retirement legislation, Cornell staff and faculty interested in deferring taxes on income for the purchase of annuities through a salary reduction agreement with the University may be affected by recent changes in the maximum exclusion allowance, according to Karl D. Keller, assistant director, Office of Personnel Services.

As of July 1976, the maximum exclusion for tax-deferred retirement contributions to TIAA-CREF (Teachers Insurance and Annuity Association-College Retirement Equities Fund) or TIAA-CREF Supplemental Retirement Annuities will be 25 per cent of the employee's annual salary.

However, employees may begin to or continue to defer more than 25 per cent during the July 1, 1975 to June 30, 1976 fiscal year only, Keller said.

Under present federal regulations, an employee's maximum exclusion allowance is based "on a complex formula equaling up to 20 per cent of the employee's lifetime income with a single employer," he said. Consequently, some Cornell employees, especially those nearing retirement, are now deferring between 40 and

50 per cent of their annual income. This practice will be prohibited at Cornell by the Employees Retirement Income Security Act of 1974, effective July 1976.

Employees planning to defer more than 25 per cent of their annual income may wish to take advantage of this option until it is prohibited, Keller said. To arrange for taking a tax-deferral during the 1975-76

fiscal year, employees must sign up before July 1, 1975.

Persons seeking to exercise their options under the present maximum exclusion allowance or those with questions on the allowance as amended should contact Keller or Vivian Collins, B-12 Ives Hall if they are endowed staff; if statutory, they should contact Paul Kilby, B-22 Mann Library.

More Cost-Saving Ideas Suggested

In addition to referring to the toll-free numbers list compiled by the Office of General Services, one may determine if a firm has such a number by dialing the telephone company's information service at 1-800-555-1212. Give the name and address of the firm or party concerned and the operator will give the "800" number if there is any.

A student, Edward Adelman, a freshman in architecture, called general services last week to advise of the availability of this service.

The first 15,000-sheet run of the new standardized University letterhead (See Chronicle April 17, page 11) has been sold out. More than 20 departments ordered the new stationary which costs \$5.25 a ream compared to the \$17 a ream cost of individualized letterhead used

widely on campus. General Stores has a backlog of nearly a dozen orders for the new letterhead. It expects to fill these orders by the end of the week and will have nearly 100 reams of the stationary in stock to meet new orders.

Wallace Rogers, director of general services, asked that all departments and units with surpluses of large and small campus mail envelopes turn them in to General Stores for reissue.

He said a new 10-by 13-inch messenger envelope has been designed and is ordered. It will be available by midsummer. Instead of the current address lines, the envelope will have 51 1-by 3-inch numbered blanks printed front and back which will accommodate address labels and should encourage more efficient use of address space.

Career Center Calendar

Come to bask in the summer sunshine of the Career Center Library. Get details on the following:

May 27: Application penalty date for the Graduate Record Examinations. The test itself will be conducted on June 21.

June 2: Application deadline for the Fellowship for Independent Study and Research sponsored by the National Endowment for the Humanities.

June 3: Application deadline for the GRE's.

June 4: Application deadline for the College of Podiatry Admissions Test. The CPAT itself will be conducted June 21.

June 20: Application deadline for the ATGSB (Business Boards). The test itself will be July 12.

June 26: Application penalty date for the LSAT. The test will be conducted July 26. Application deadline for the National Teachers Exam to be conducted July 19.

July 3: Application deadline for the LSAT.

Clip and save this calendar for the long and hot summer. The Career Center will open its doors every weekday from 8 to 4:30 during the summer. Have a good vacation!

The Senate Page

The Senate Page is the official bulletin of the Cornell University Senate. Publication is supervised by Douglas Auer, secretary of the Senate, 133 Day Hall. 256-3715.

NEXT SENATE MEETING:

Tues., Sept. 2, 7:30 p.m.
Bache Aud. Malott Hall.

Calendar

FRIDAY, May 16

Board on Student Health,
4:30 p.m., Gannett Clinic

MONDAY, May 19

Executive Committee, 4:45
p.m., Senate Office

Senate Actions — May 6, 1975

SA NO.	TITLE AND ABSTRACT	SPONSOR	ACTION TAKEN
SA-345	AN ALTERNATIVE LOAN PROGRAM PROPOSAL - Passed 4-29-75 [The Senate recommends a feasibility study be made on an income-contingent loan program available by election to all Cornell students.]	Admissions and Financial Aids Committee	ADOPTED AS AMENDED
SA-346	NON-RETURNABLE/NON-REFILLABLE CONTAINER PROHIBITION ACT [Prohibits the sale of soft drinks in non-returnable/non-refillable containers in the North and West Campus areas for a one-year trial period.]	Fifth Senate C.L.C. Neil Getnick, original sponsor	ADOPTED
SA-347	COMMITTEE ON COMMITTEES - STAFFING REPORT [Nominations for Graduate Activities Funding Commission and Codes and Judiciary Committee.]	Committee on Committees	ADOPTED
SA-348	SUBSTITUTE FOR SA-345 [Requests the Administration, consulting with Admissions and Financial Aids Committee, design a provisional group repayment income-contingent loan program for Cornell, to be submitted by October 14, 1975. Supersedes SA-345.]	J. Abel, D. Auer	ADOPTED
SA-349	SUMMER BOARDS ACT [Establishes judicial boards to serve during the summer months.]	Codes and Judiciary	ADOPTED
SA-350	FRESHMAN ELECTION BYLAW REVISION [Deletes the current constraints on holding Freshman Elections.]	Special Committee on Election Reform	ADOPTED
SA-351	THE LAW SCHOOL CALENDAR ACT [Allows the Law School to modify its calendar to meet N.Y.S. Court of Appeals Rules concerning length of instruction.]	Calendar Committee	ADOPTED

Mellon Fellowships Go To Three Humanists

Three young humanists have been selected for post-doctoral teaching fellowships in the College of Arts and Sciences in a special program supported by a \$1,200,000 gift to Cornell from the Andrew W. Mellon Foundation.

Arts College Dean Harry Levin has announced that two-year Mellon Fellowships worth approximately \$10,000 a year each have been awarded to the following:

—Anna-Maria Kovacs, a lecturer in English at Boston University who received her doctorate in comparative literature from Harvard University in June 1974;

—Thomas E. Postlewait, a teaching associate at the University of Minnesota who is scheduled to receive his doctorate in English from there next month;

—Eleonore Stump, an instructor in philosophy at Cornell who expects to receive her doctorate in philosophy in August.

Announced earlier this year, the Mellon gift was made "to increase opportunities for humanists" ... and in "recognition that special efforts are required if promising careers are not to be frustrated and the nation's academic resources seriously impaired, as a result of the recent economic turnaround."

Kovacs will be associated with the Department of Comparative Literature and give two new undergraduate seminars next fall: "The City in Literature" which will include readings from Dostoevsky, Dickens, Camus, Joyce and Sartre and "Marriage and Divorce" with readings from Austen, Flaubert, Barth and Zola among others. She earned a bachelor's degree at Boston University in 1969 in English and economics and a master's from Harvard in 1970.

Postlewait will teach courses in the area of modernism in the arts. His special interests are, British and American 20th Century literature and dramatic literature of today and the Renaissance. He received his bachelor's degree in the humanities from Portland State University in 1966.

Stump, whose special interests are in philosophy of religion, Christian thought, medieval philosophy and ancient philosophy, will be giving courses in these areas. She received a bachelor's degree in Classics from Grinnell College in 1969 and earned a master's degree in Biblical studies while satisfying language requirements in French, German, Latin, Greek and Hebrew at Harvard in 1971. She also earned a master's from Cornell in 1973.

CU Blacks' Experience Surveyed

The educational backgrounds and perceptions of Cornell University black students studying at this predominantly white university in the early 1970s may not conform to beliefs held by many blacks and whites on these issues, according to Brackette Williams of the University's Learning Skills Center (LSC).

Her conclusions are based on results of a questionnaire administered to some 160 black students in 1970 and 1971 when the black undergraduate population totaled about 480. Nearly half that group were freshmen, part of whom who would now be graduating seniors, she said.

The survey results are not intended to reflect present student backgrounds and attitudes but to illuminate those factors in the black student population several years ago, Williams said.

Mary Mosley, currently LSC director, designed the questionnaire and administered it on a "walk-in-basis" to black students at the COSEP (Committee on Special Educational Projects) office. Williams, a 1973 Cornell graduate and currently assistant to the LSC director in charge of research, organized the data and formed the following conclusions.

Williams found that more than two-thirds of the black students made their decision to attend college while still in elementary or junior high school; very few felt their high

school counselors had been significant in their decision to attend college. More than half reported their parents were most important in helping them decide.

Once having made the decision, three-fourths said their fathers were supportive and more than that number said their mothers were supportive (in cases where the parent was reported). Closest friends, older siblings and guidance counselors were supportive in descending order, Williams said.

Nearly half had attended "mostly white" high schools, about one-third attended "mostly black" and the remainder attended integrated schools. Eighty per cent took "college preparatory" curricula, with nearly two-thirds graduating in the top 10 per cent of their class plus an additional one-fourth who said they graduated in the top 25 per cent.

"These findings tend to dispel the belief that black students were not on the general track or that they did not perform well in high school," said Williams. "Nor did they feel they had been 'short-changed' in high school preparation, although they were less inclined to rate their teachers or school officials as satisfactory in comparison to the courses offered and the physical plant.

More than three-fourths had not been involved in special

preparatory programs for the racially or ethnically disadvantaged while in high school, she said: "Thus it would seem for 77 per cent of them, COSEP was their first interaction with being labelled 'deficient' and in need of special services."

Once at Cornell, the black students' perception of their academic performance, their perception of how their faculty viewed their performance and their actual grade point averages were almost identical. Some 90 per cent perceived their performance to be either "good" or "fair"; the total COSEP grade point average for spring 1971 was 2.3 or a C-plus. Three-fourths of the surveyed group were registered for 15 or more credit hours, with 40 per cent taking 17 hours or more.

Although 40 per cent felt their professors graded them by standards different from standards for whites, 67 per cent disapproved of the perceived double-standard. Only one-fourth advocated a double-standard for blacks and whites, Williams found.

The greatest discrepancy perceived between Cornell blacks and whites centered on "cultural" differences such as "language," "attitudes toward life and people," and "taste in music and dance" where 90 per cent felt their styles were unlike those of the white population. Eighty per cent felt their "modes of dress" and

"food preferences" differed, and 70 per cent felt their "thoughts about things and events" and "way of walking" were different.

About two-thirds of the black students answering felt their white faculty and classmates were only moderately aware or completely unaware of "life styles, values and beliefs not usually associated with the middle class." Significantly more black faculty and students were seen to be moderately "hip," and another 10 per cent were very "hip." They nevertheless "saw some of their classmates as trying to be white middle class. Very few felt themselves to be attempting to conform," said Williams.

She stated, "The minority has been forced to be bi-cultural all their lives; if the whites are bi-cultural, it's by choice."

If one can generalize from number of students reporting having "mostly black" classes, most black students were not taking Africana Studies and Research Center courses, designed to be of special interest to blacks, during 1970 and 1971, she said. Only about 20 per cent of those surveyed preferred all-black classes, although an additional 25 per cent wanted "mostly black" classes, with about 45 per cent, or just under half, preferring classes be equally divided by race. "There was no over-

whelming preference for all black classes," Williams concluded.

"In general, most blacks felt they were less well prepared academically than their white classmates but that they were as well prepared as their black classmates. Nearly half felt they had control over what happened to them in school and in life. Those who felt they lacked control cited personal reasons. The common belief that they felt they lacked control for political reasons was not supported by our data," she said.

Almost 70 per cent expected to begin advanced studies after graduation, with nearly all the students stating they expected they would benefit personally from their education. Three-fourths felt the black community would also benefit.

Almost without exception, these black students indicated they would recommend college study to their siblings, but this figure dropped considerably when asked if they would specifically recommend Cornell. Only about one-third would do so. Yet, even knowing what they do about Cornell, 60 per cent would choose to re-enter, with the remainder choosing to re-enter another institution.

Williams thought the survey showed, in general, "an openness, in contrast to separatism or militancy."

Bulletin Board

Colloquium Honors Professor

A colloquium on Biology, Society and Ethics will honor Dr. Robert S. Morison, Richard J. Schwartz Professor of Science and Society, Monday, May 19, 2-5 p.m. in room 700 Clark Hall. Colloquium speakers will include: Dr. Robert R. Capranica, associate professor of Neurobiology and Behavior and Electrical Engineering at Cornell, speaking on "Sensory Neurobiology and Animal Behavior"; Dr. David R. Goddard, professor of Biology and Science and Public Policy, University of Pennsylvania, discussing "Education and the University"; and Dr. Daniel J. Callahan, director of the Institute of Society, Ethics and the Life Sciences, addressing the topic, "Biology and Ethics." The colloquium is being sponsored by the Division of Biological Sciences, the Program on Science, Technology and Society, and the Program on Social Analyses of Science Systems. Open to the public.

Sibley Lot Loading Area Closed

The normal loading zone in the lot area of Sibley Hall has been temporarily closed off due to construction, according to the University Traffic Bureau.

Deliveries may be made at a temporary loading area near the west stairs of Sibley Hall.

Parking Renewal Date Extended

Those little pink cards that are used by Cornell for reregistration of vehicles for campus parking permits will be a little late this year.

The Traffic Bureau has reported that the cards were late coming back from the printer, and that although they specify that they must be returned by May 15, the date has been set back to May 29 because of the lateness.

Permit holders at the University should receive their renewal applications in the mail this week.

Sage Notes

The regular meeting of the Graduate Faculty for consideration of the June degree list will be held at 4:30 p.m., Friday, May 23, in Kaufmann Auditorium in Goldwin Smith Hall.

Graduate School non-credit registration for the summer of 1975: All graduate students who do not need residence credit for summer but who plan to continue study toward their degrees during the summer should fill out a non-credit registration form and register in the Graduate School Office, 111 Sage Graduate Center on or after May 28, 1975. There is no tuition charge for this registration. The student copy of the form serves as a summer ID for receipt of scholarship checks, and for use of University Clinic and Libraries.

The Board of Trustees has voted to increase the thesis fee for the Ph.D. degree from \$30 to \$40 effective July 1, 1975. This increase will affect all students paying their thesis fees on or after July 1.

The deadline for submission of all degree requirements for a June 1975 degree conferral is tomorrow, May 16. There will be no exceptions. The next degree deadline date will be August 22, for degrees conferred August 27, 1975.

Final commencement information is available in the Graduate Office. Caps and gowns may be ordered through Student Agencies, 409 College Ave.

A reception for all graduate students who participate in commencement exercises and their guests will be held in Sage Graduate Center immediately after the ceremony.

Degrees will not be awarded to students who owe funds to the University. All degree candidates should check their accounts with the Student Account Section of the Bursar's Office, 260 Day Hall, before May 21. Since mistakes can be made in the rush of commencement activities, all candidates should check even if they are sure there are no outstanding charges due the University. All students with loans must set up exit interviews with the Financial Aid Office.

Registration reminder for fall semester, 1975: Registration forms (including Registration Permit Card) will be available for pickup Tuesday, August 26 through Thursday, August 28, 8 a.m. - 4 p.m. and on Friday, August 29, 8 a.m. - 3 p.m. at Lynah Rink. New students registering for the first time at Cornell should register at Barton Hall, Thursday, August 28, 1975, 8:00 a.m. - 12:00 noon. All continuing and rejoining students register at Barton Hall, Friday, August 29, 1975, 8 a.m. - 12 noon and from 2 p.m. to 4 p.m. All students register at the time indicated on their Registration Permit Card.

Seniors and graduate students contemplating study abroad are encouraged to consider the Fulbright-Hays competition administered by the Institute of International Education. Applicants must be U.S. citizens, hold a bachelor's degree before beginning date of grants, have impressive scholastic achievement, and have a good proficiency in the language of the host country. For further information see Mrs. Eva Poysa, 110 Sage Graduate Center.

Cornellians Speak at Conference

'Acid Rain Is Increasing'

Gene E. Likens, one of the first American ecologists to report on increasing acidity in rain and snow and a professor of ecology and systematics at Cornell, documented the intensification of acid precipitation over the past decade at Hubbard Brook, N.H., during the first International Symposium on Acid Rain being held at the Ohio State University this week.

Cornell postdoctoral associate James Galloway and master's degree candidate Charles Cogbill, who have been working with Likens, also presented papers at the symposium.

The conference, organized by the United States Forest Service, is designed to review what is known about acid precipitation and its effect on forests, lakes and streams and land.

Likens explained that acid precipitation, which may be an off-shoot of fossil fuel combustion, has existed within the Northeast for the last 25 years or so and has now spread over much of the eastern United States.

Precipitation in the Northeast now has a pH of between 3.5 and 4.6. (A pH reading of 7 is neutral; below 7 is acid; above 7 is basic on a scale of 1 to 14.) The acidity of rain and snow in the area seems to be increasing, he added.

Acid precipitation has been shown to have detrimental effects on the chemical composition and fish populations of lakes and on buildings and cars, Likens said, but its effects on vegetation and soil have not yet been demonstrated conclusively.

Likens' data, gathered on a forest ecosystem at Hubbard Brook, N.H. where he and other researchers have worked for more than a decade, show an increase of 36 per cent in hydrogen ion input (a measure of acidity) into the ecosystem from precipitation over that time.

His data also show that in the past 10 years the rain has lost some 57 per cent of its capacity to neutralize the acids. This, Likens believes, may be due to decreased particulates in the air.

More important, Likens said, even though sulphuric acid is still the dominant acid in precipitation the changes in acidity at Hubbard Brook over the past 10 years can be attributed almost entirely to nitric acid, a strong acid formed by the interaction of nitrogen oxides with water.

The sources of the nitrogen oxides have not been pinpointed, but Likens suggested that the increased use of cars and trucks, jet aircraft and natural gas as a fuel since 1945 could all contribute to the increase.

Postdoctoral associate James Galloway documented that the increasing acidity in precipitation over the past decade could not be the result of natural or man-made weak acids but was rather the result

of the strong acids — sulfuric and nitric — presumably associated with the combustion of fossil fuels.

Galloway analyzed rainwater chemically to ascertain the role of the strong and weak acids. He found that below a pH reading of 5 organic acids were the only factors which could represent a weak acid component and thus contribute to the measured acidity of the rainfall. Moreover, he found that organic acids could contribute at most about eight per cent of the measured acidity.

Galloway has also been testing various kinds of precipitation collectors from around the world to determine how well they work. He presented the results of these investigations at the conference as well.

He found that the materials making up the sampling device affected the readings for certain substances. If one wants to measure the organic molecules in rain, for example, it is important to use glass or metal containers rather than plastic. On the other hand, if one is interested in sodium or potassium concentrations, glass containers must not be used.

Acidity readings will vary depending on whether the collectors trap only wet precipitation (rain or snow) or are open all the time, collecting dry precipitation as well. Because the

collectors used to monitor rain at Hubbard Brook captured both wet and dry precipitation, he added, the acidity of the rain there may have been underestimated by as much as 20 per cent.

Master's degree candidate Charles Cogbill compared tree growth near the Hubbard Brook site, and in the Great Smoky Mountains of Tennessee. The Hubbard Brook site had average summer rain with a pH reading of between 4.0 and 4.1 while the Smoky Mountain area's rain was slightly less acid — with a pH of about 4.2.

While Cogbill's data show some declines in tree growth over the past 10 years, the information cannot be correlated precisely with the differences in acidity between the sites.

The Cornell researchers will participate in another conference on acid precipitation to be held in Rensselaerville, N.Y. on May 19 and 20. This conference, sponsored by the Cornell Center for Environmental Quality Management, Cornell Water Resources and Marine Sciences Center, the New York State Department of Environmental Conservation and Region II of the federal Environmental Protection Agency, will inform resource managers of the acid precipitation problems and discuss possible ways of coping with them.

Connor Is Sage Speaker

David W. Connor, an associate of Cornell's Centre for Religion, Ethics and Social Policy, will be the guest speaker at the Sage Chapel Convocation at 11 a.m. Sunday, May 18. His topic will be "Is God a Human Chauvinist?"

Connor came to Cornell in 1966 as associate Catholic chaplain. In 1969 he became senior Catholic chaplain. He now serves as coordinator of the "Learning Web" — a community-based education program that arranges "apprentice" learning situations for

young people throughout the area.

Connor is also the associate director of education for the Alcoholism Council of Tompkins County.

Music for the convocation will be provided by the Cornell Russian Choir under the direction of graduate student David Janower. The group will perform "Chashu Spaseniya" or "The Cup of Salvation" by N. Rimsky-Korsakov and Dmitri Bortniansky's "Cherubic Hymn."

Steam Heat Conservation Funds Approved Yesterday

The Executive Committee of the Board of Trustees has appropriated \$80,000 for steam heat conservation measures which will result in an estimated \$89,000 a year savings in heat costs.

The appropriation made at the Committee's monthly meeting yesterday in New York City, will be used for installing insulation and heat control devices in the following buildings: Uris Library, Langmuir Laboratory Wing, and Malott, Olin, Carpenter, Phillips and Lincoln Halls.

In addition, the trustees authorized the financing of \$80,474 from the Buildings and Properties Enterprise Reserve to replace grounds maintenance equipment including

trucks, tractors, rollers and mowers, some of which date back to the early 1930s.

An allocation of \$45,000 was made to cover additional costs of routine and preventive maintenance in buildings in endowed units. Some \$355,000 was budgeted for these items for the 1974-75 fiscal year which ends June 30. The funds are necessary to meet additional costs in materials, labor and increased incidences of breakdowns.



Calendar

May 15-25

Thursday, May 15

12 noon. Annual Plant Sale. Judging Pavilion on Judd Falls Road. A project of more than 175 students in the General Horticulture class (VC 103), who have been preparing since February with the seeding of petunias and propagation of geraniums. There will also be a larger quantity of vegetable plants this year.

2:30 p.m. Final Colloquium of the European Sociology Series: "Reflections on Contemporary European Sociology." Prof. Michael Eiken, University of Wisconsin. Uris Hall 202.

6 p.m. The Cornell Christian Science Organization invites students to a Readings and Testimony Meeting in the Founders Room, Anabel Taylor.

7:15 p.m. Shavouth Services. Young Israel House.

7:30 p.m. Israeli Folk Dancing. One World Room, Anabel Taylor.

8 p.m. *Cornell Cinema Film: "The Circus," directed by and starring Charles Chaplin with Virginia Cherrill. Willard Straight Theatre.

9 p.m. Noyes Center Free Film Series: That's all folks — Study Break Cartoon Festival with Mighty Mouse, Betty Boop, Felix the Cat, Bugs Bunny, Daffy Duck, Porky Pig, etc. Noyes Third Floor Lounge.

Friday, May 16

9:30 a.m. Shavouth Services. Edwards Room, Anabel Taylor.

3 p.m. Dept. of Geological Sciences Seminar: "A combined private and scientific visit to the Peoples' Republic of China — (a native's first return after 26 years)." Dr. John T. Joo, Henry Crumb School of Mines, Columbia University and Lamont-Doherty Geological Observatory. Kimball B-11.

6 p.m. Shabbat Service. Founders Room, Anabel Taylor.

7 & 9:15 p.m. *Cornell Cinema Film: "Father," directed by Itsvan Szabo. Uris Auditorium. Attendance limited to Cornell Community.

7 & 9:30 p.m. *Cornell Cinema Film: "The Night Porter," directed by Liliana Cavani, starring Dirk Bogarde and Charlotte Rampling. Stater Auditorium.

7:15 p.m. Shabbat Service. Young Israel House.

8:30 p.m. Shabbat Service. Hi Rise, Lounge 1.

Saturday, May 17

9:30 a.m. Shabbat Service (Orthodox). The Edwards Room, Anabel Taylor.

9:30 a.m. Shabbat Service (Conservative). The Forum, Anabel Taylor.

2:30 p.m. Talmud Shiur. Young Israel House.

7 & 9:15 p.m. *Cornell Cinema Film: "Yellow Submarine," directed by George Dunning, starring The Beatles. Uris Auditorium. Attendance limited to Cornell Community.

7 & 9:30 p.m. *Cornell Cinema Film: "The Night Porter," directed by Liliana Cavani, starring Dirk Bogarde and

Charlotte Rampling. Statler Auditorium.

Sunday, May 18

9:30, 11 a.m. & 5 p.m. Catholic Masses. Anabel Taylor Auditorium.

9:30 a.m. Holy Communion Episcopal Church at Cornell. All are welcome, students, faculty and families. Anabel Taylor Chapel.

10 a.m. Friends Meeting for Worship. Child care provided for infants. Discussion at 11. Anabel Taylor Forum.

11 a.m. Sage Chapel Convocation: David W. Connor, associate, Centre for Religion, Ethics and Social Policy; associate director of Education, Tompkins County Council on Alcoholism.

7 & 9:15 p.m. *Cornell Cinema Film: "Yellow Submarine," directed by George Dunning, starring The Beatles. Uris Auditorium.

Monday, May 19

First day of Final Examinations.

9 p.m. *Cornell Cinema Film: "The Searchers," directed by John Ford, starring John Wayne, Ward Bond, Vera Miles and Natalie Wood. Uris Auditorium. Attendance limited to Cornell Film Club Members.

Tuesday, May 20

8 p.m. *Cornell Cinema Film Double Feature: "Shadow of a Doubt" at 8 p.m. starring Joseph Cotten and "Saboteur" at 10 p.m., starring Robert Cummings. Both directed by Alfred Hitchcock. Uris Auditorium. Attendance limited to Cornell Community.

8:15 p.m. *The Ithaca Ballet Chamber Company will present a spring performance.. Willard Straight Theatre.

Wednesday, May 21

4:30 p.m. University Faculty Meeting. Ives 110.

8 p.m. *Cornell Cinema Film: "Paths of Glory," directed by Stanley Kubrick, starring Kirk Douglas and Adolphe Menjou. Uris Auditorium. Attendance limited to Cornell Community.

8:15 p.m. *The Ithaca Ballet Chamber Company will present a Spring performance. Willard Straight Theatre.

Thursday, May 22

8 p.m. *Cornell Cinema Film: "Room Service." Marx Brothers classic directed by William A. Seiter. Willard Straight Theatre. Attendance limited to Cornell Community.

Friday, May 23

7 p.m. *Cornell Cinema Film: Double Feature: "Revolutionists," directed by Vera Stroyeva at 7 p.m., plus "Portrait of Lenin," directed by Sergei Youtkevich at 9 p.m. Uris Auditorium. Attendance limited to Cornell Community.

7 & 9:15 p.m. *Cornell Cinema Film: "Sleeper," directed by and starring Woody Allen, with Diane Keaton. Statler Auditorium. Attendance limited to Cornell Community.

Saturday, May 24

1 p.m. Heavyweight Crew - Pennsylvania.

5:15 & 11:30 p.m. Catholic Masses. Anabel Taylor Chapel.

7 & 9:15 a.m. *Cornell Cinema Film: "The Graduate," directed by Mike Nichols, starring Dustin Hoffman, Ann Bancroft and Katharine Ross. Uris Auditorium.

7 & 9:15 p.m. *Cornell Cinema Film: "Sleeper," directed by and starring Woody Allen with Diane Keaton. Statler Auditorium.

Sunday, May 25

9:30, 11 a.m. & 5 p.m. Catholic Masses. Anabel Taylor

Auditorium.

9:30 a.m. Holy Communion Episcopal Church at Cornell. All are welcome, students, faculty and families. Anabel Taylor Chapel.

10 a.m. Friends Meeting for Worship. Child care provided for infants. Discussion at 11.

11 a.m. Sage Chapel Convocation: Loreta Jordan, S.M.D., associate of the Committee on Latin America Relations and of the First Baptist Church, Ithaca.

EXHIBITS

Herbert F. Johnson Museum: MARGIN OF LIFE: through June 29. An exhibition of 100 photographs by Cornell Capa whose photo essays became famous during his long association with Life magazine. Capa explains the purpose of the exhibition as "an attempt to demonstrate how poverty and population growth comprise an ever tightening circle around the lower income resident of the less developed countries.

ED THOMPSON, open to July 6. Born in 1941, Ed Thompson attended RISD and completed work on his MFA in painting at Cornell. The work chosen for this exhibition reflects the artist's ten-year preoccupation with certain pictorial themes and motifs that reappear and are transformed in his portraits, landscapes and interiors.

AARON SHATTUCK: through May 25. Shattuck was a member of the second generation of a group of painters known as the Hudson River School active during the middle of the 19th c. and especially noted for their serene and charming landscapes.

VISIONS OF AMERICA: 19 c. reactions to the changing landscapes. Paintings selected from the permanent collection and one from the collection of John Reps. Organized by two Cornell students, Gary Bernstein and Kathy Ostrom.

History of Science Collections: Recent Acquisitions, changed monthly. 215 Olin Library.

Dept. of Manuscripts and Archives, Olin Library: Children's Artwork from Vicos, Peru, 1954.

Olin Library: "Faces of Latin America," Photographs by J. Mayone Stycos, professor of Sociology and Director of the International Population Program at Cornell. Stycos' work has been shown at the Boston Museum of Science, Seattle Art Museum, Wells College, Ithaca College, Auburn Community College and Cornell. The photographs and the books accompanying them were chosen to illustrate the changeless — and changing — face of Latin America. The photographs were taken in Brazil, Guatemala, Honduras, El Salvador and Colombia.

ANNOUNCEMENTS

Statler Summer Dining ... Breakfast: Rathskeller (Monday-Saturday) - 7:30-10:30; *Lunch:* Cafeteria (Monday-Friday) - 11:30 - 1 ... Main Dining Room (Monday-Friday) - 12-2 ... Rathskeller (Saturday) - 11:45-2; *Dinner:* Rathskeller (Monday-Saturday) - 5:30-7:30 ... Main Dining Room (June 1, 12, 13, 14) - 6-8.

*Admission Charged.

Attendance at all events is limited to the approved seating capacity of the hall in which they are presented.

All items for the Cornell Chronicle Calendar must be submitted to the Office of Central Reservations, 32 Willard Straight Hall (either through the mail or by leaving them at the Straight desk), or call Carol Adams, 6-3513 at least 10 days prior to publication of the Chronicle. The Calendar is prepared for the Chronicle by the Office of Central Reservations.

Conference to Be Held June 22-25

Women Engineering Students

An institute on "The Woman Engineering Student — Beyond Recruitment" for engineering faculty, administrators and counselors throughout the country will be held at Cornell's College of Engineering June 22-25.

Edmund T. Cranch, the J. Silbert Dean of the College of Engineering, announced that the institute will be one of the first to examine the problems of women as student engineers and will explore the factors which institute organizers say can prevent women from reaching their full potential — isolation from peers, lack of laboratory skills and fear of success. Representatives of industry will also discuss the implications of an increasing number of women engineers entering the job market.

With the number of women in engineering colleges in-

creasing rapidly, Cranch said, colleges must determine how to best handle the different needs and aspirations of women students.

The idea of the institute evolved from a survey of freshman engineering students at Cornell conducted by the College of Engineering's Division of Basic Studies and the Office of the Dean of Students last fall.

The survey indicated that male and female engineering students at Cornell have markedly different attitudes, career expectations and personal goals.

Women had preferred math to science in high school while men had had a strong preference for science. This difference was reflected in their career choices. The majority of women wanted careers in civil and chemical engineering and

in the math-oriented field of operations research; few wanted to become mechanical or aerospace engineers.

Far more women than men planned to work for advanced degrees. Women wanted jobs which would enable them to help others and better society generally. Women also acknowledged greater dependence on their families and peers when making decisions.

Male students put greater emphasis on obtaining high paying, secure positions or starting their own companies. They also preferred career situations where they would be free to exercise their creativity.

Seven sessions are planned for the three-and-a-half-day conference based on the recent Cornell survey findings. They are:

—"Research on Freshman Engineers," a discussion of results of surveys and of empirical projects carried on at Cornell and other institutions. Chairpersons are Robert Gardner, David Johnson and Mary Diederich Ott of Cornell's

Division of Basic Studies;

—"The Academic Woman: Barriers to Achievement," a discussion of factors hindering women in reaching their potential as students and engineers and of programs designed to overcome such problems. Chairperson is Mildred Dresselhaus, professor at the Massachusetts Institute of Technology;

—"The Social Scene: Isolation and Frustration," a discussion of differences in social needs of men and women students and the need for peer support. Chairperson is Helen O'Bannon, associate dean at Carnegie Institute of Technology;

—"Women in the Lab: I'll take the Data," a discussion of difficulties women students encounter in laboratory activities and of programs used to overcome such problems. Chairperson is Martha Sloan, professor at Michigan Technological University;

—"Decisions, Decisions: What Should I Do?," a discussion of differences between

men and women students in making decisions about careers and in selecting fields within engineering. Chairperson is John B. Parrish, professor at the University of Illinois;

—"Women Graduate Students in Engineering," a discussion of issues such as attrition, support services, role conflict, the feminine need to fail, and decision making. Chairpersons for the session are Helen O'Bannon and Irene Peden, associate dean of the University of Washington;

"Women: The New Engineers," a panel discussion including representatives of industry, government and education on whether women students' attitudes, perceptions and needs should be modified to conform with industry's expectations of engineers. Chairperson is Irene Peden.

Attendance at the institute is by invitation. For further information write: Summer Institute, College of Engineering, 170 Olin Hall, or call 256-7414.

Pick Up Competition Entries

Those students who entered the following prize competitions, please pick up your entries at 315 Day Hall before leaving campus: Barnes Shakespeare Prize, Corson-Bishop Prize (poetry), Arthur Lynn Andrews Award, Goethe Prize.