

Cornell Chronicle

Volume 15, Number 30

Thursday, March 29, 1984

Supercomputers Will Tackle Simulation Problems Charter For Science and Engineering Program Is Approved

The establishment of a supercomputer-based research program, the Center for Theory and Simulation in Science and Engineering, has been authorized at Cornell University.

Meeting last weekend in Ithaca, the University Board of Trustees approved the Center in concept and authorized Cornell President Frank Rhodes to establish the Center at the appropriate time.

The Center, which is estimated to have an annual budget of \$18 million by 1987 and a support staff of about 100, was endorsed March 14 by the Cornell Faculty Council of Representatives.

Plans call for the Center to provide scientific and programming support and computing resources for scientists, engineers and scholars whose research requires the development and application of complex, large-scale computational strategies. In collaboration with the computer industry and industrial computer users, the Center will test new computational systems and architectures ultimately intended for commercial scientific and engineering use.

"Massive computing power is needed to overcome the mathematical obstacles at the core of many unsolved problems in science and engineering," said Nobel Laureate Kenneth G. Wilson, one of the Center's planners. "Such unsolved problems are found in atomic, molecular and biological structure; statistics and information theory; computing theory and artificial intelligence; social and economic systems; and unified field theories and astrophysics," said Wilson, a member of the Cornell Laboratory of Nuclear Studies, a specialist in elementary particle physics and winner of the 1982 Nobel Prize in physics for his studies of phase transitions.

With its core of participating faculty, graduate students, research associates and visitors, the Center will use a common system for communication, computing and information retrieval based on the Cornell Theorynet. Theorynet will be a network of super minicomputers linked to one or more supercomputers.

Corporate and governmental support is being sought for the Center.

The Center has, among its objectives to:

- create the scientific and intellectual environment and provide the computing resources to bring together faculty who share an interest in theory and computer simulation, and their application to unsolved problems in science and technology;

- provide Center members with access to computational resources of the highest quality, including experimental supercomputers, for large-scale computation and other specialized computing needs;

- advance computing through projects that bring together those at the forefront of scientific and engineering computing, and electrical engineers and computer scientists engaged in computer-related research;

- provide access to the Center programs and facilities to visiting scientists and engineers from industry and government; and

- increase communication and cooperation between university research and training programs, and similar efforts in industrial and government laboratories.

Thomas E. Everhart, Dean of the College of Engineering, said, "The next generation of supercomputers, now in the planning stage, promises increases in speed and power of 100 to 1000 times, bringing many more scientific and engineering problems within the range of modern simulation techniques. To be used effectively, these advances must be accompanied by parallel developments in mathematical, physical, social and economic theories as well as advances in engineering theory and design; this combination of theoretical and computational research and design, using simulation, will be the distinguishing feature of the Center."

"The Center will be the cornerstone of our efforts to create a computing-rich environment at Cornell and to insure that Cornell plays a leadership role in develop-

Continued on Page 8



Kenneth G. Wilson, the James A. Weeks Professor of Physical Science, is one of the planners of the new Center for Theory and Simulation in Science and Engineering.

Transportation Plan Approved In Principle

This following describes current action on proposed parking and transportation plan presented at last Friday's (3/23/84) meeting of the Board of Trustees.

At its meeting on Friday, the Board of Trustees approved in principle a new Transportation Master Plan that is intended to meet the long-range needs of the campus. However, at the request of the administration, the Board deferred consideration of a method for financing and implementing the plan, pending further study.

At the meeting, Senior Vice President Herbster, Vice President Gurowitz, and Director of Transportation Wendt reported that prior to the Board meeting, 15 presentations and open hearings had been held campus-wide regarding the plan. In general, there was positive reaction to the benefits offered by the proposed program, which will correct the severe shortage of parking on and near campus and increase mass transit service available to Cornellians. The plan also will respond to new needs that arise from planned construction on campus, which will occupy existing parking space and attract additional visitors and traffic to the campus.

However, the response to proposals to finance the plan, by increasing the number of people who pay parking fees and by an overall increase in fee schedules, has been far less positive. Therefore, the administration will re-examine the issue of how best to finance and implement the plan in

view of the concerns which have been expressed. In doing so, the administration intends to work with the campus governance system, including the Committee on Transportation Services of the University Assembly and other appropriate groups.

The Transportation Master Plan, if fully implemented would require a \$5.3 million investment.

It includes expansion and rehabilitation of several parking lots, and improvements in traffic circulation. For example, in the Collegetown area, the Stewart and Williams Street parking areas will be expanded from 75 to 125 spaces. A new parking area for 375 vehicles will be constructed in the East Hill Plaza neighborhood and another for 78 vehicles in the Martha Van Rensselaer area. Several existing parking areas and roadways in the North Campus and Arts College area will be upgraded, too.

A major component of the proposed program is the construction of a 460-car parking garage on the northwest corner of Hoy Field. The structure is planned to meet short-term visitor and community parking needs on the central campus. The new garage will also respond to the future plans of the Hotel School, the athletics master plan and other programs. Siting of the parking structure will require repositioning of the baseball playing field. The cost of doing this is included as part of the new parking and transportation plan.



Linus Pauling, one of five Nobel Laureates participating in the symposium celebrating the 100th anniversary of the birth of Peter J.W. Debye, addresses a crowd at Baker Laboratory. The day-long symposium March 22 attracted an international audience of more than 500, and 240 to an evening banquet.

Summary Annual Reports of Benefit Plans

The Employee Retirement Income Security Act of 1974 (ERISA) requires that an annual report for each employee benefit plan covered by ERISA be filed with the Internal Revenue Service. In addition, ERISA also requires that summaries of these reports be distributed to plan participants. The following summaries present all information required and conform with the style and content requirements of the U.S. Department of Labor.

SUMMARY ANNUAL REPORTS

Given below are the summaries of the annual reports for Cornell University's (EIN 15-0532082) employee benefit plans for the period July 1, 1982 to June 30, 1983, unless otherwise specified. These annual reports have been filed with the Internal Revenue Service, as required under the Employee Retirement Income Security Act of 1974 (ERISA).

Plan No.	Plan Name	Plan Year End
001	Cornell University Retirement Plan for Endowed employees	6/30
003	Tax Deferred Annuity Plan	6/30
004	Retirement Plan for Non-Exempt Employees of Cornell University	6/30
501	Cornell Children's Tuition Scholarship Plan	6/30
502	Blue Cross Blue Shield Health Insurance	6/30
503	Blue Cross Blue Shield-Medicare Extended Health Insurance Plans (40010-21 and 40010-23)	6/30
505	Major Medical Health Insurance Plan for Endowed Colleges (Prudential)	6/30
506	Group Life Insurance Plan (Prudential)	6/30
508	Long Term Disability Plan	6/30
513	Air Travel Insurance Plan	2/07

Cornell-Funded Plan

Cornell Children's Tuition Scholarship Plan - Plan No. 501

Basic Financial Statement

During the plan year, the Plan had total income of \$3,087,925 including employer contributions of \$893,417 for students attending other institutions, and \$2,194,508 from internal transfer of funds for students attending Cornell University.

Plan expenses were \$3,087,925. These expenses included \$893,417 in benefits paid to other institutions for eligible students and \$2,194,508 in benefits paid by internal transfer of funds for eligible students attending Cornell University.

Welfare Insured Plans

Blue Cross Blue Shield Health Insurance Plans (40010) Plan No. 502

Insurance Information

The Plan has contracts with Blue Cross Blue Shield of Central New York to pay all hospitalization and surgical/medical claims incurred under the terms of the Plan. The total premiums paid for the plan year ending June 30, 1983, were \$3,282,616.

Because they are "experience-rated" contracts, the premium costs are affected by, among other things, the number and size of claims. Of the total insurance premiums paid for the plan year ending June 30, 1983, the premiums paid under such "experience-rated" contracts were \$3,282,616 and the total of all benefit claims paid under these "experience-rated" contracts during the plan year was \$3,452,514.

Blue Cross Blue Shield Medicare Extended Health Insurance Plans (40010-21 and 40010-23) - Plan No. 503

Insurance Information

The Plan has contracts with Blue Cross Blue Shield of Central New York to pay all hospitalization and surgical/medical claims incurred under the terms of the Plan. The total premiums paid for the plan year ending June 30, 1983, were \$381,923.

Major Medical Health Insurance Plan for Endowed Colleges Plan No. 505

Insurance Information

The Plan has a contract with the Prudential Insurance Company of America to pay all medical expense claims incurred under the terms of the Plan. The total premiums paid for the plan year ending June 30, 1983, were \$737,995.

Because it is an "experience-rated" contract, the premium costs are affected by, among other things, the number and size of claims. The total of all benefit claims paid under the "experience-rated" contract during the plan year was \$385,738.

Group Life Insurance Plan - Plan No. 506

Insurance Information

The Plan has contracts with the Prudential Insurance Company of America which pay all death benefits incurred under the terms of the Plan. The total premiums paid for the plan year ending June 30, 1983, were \$1,436,401.

Because they are "experience-rated" contracts, the premium costs are affected by, among other things, the number and size of claims. Of the total insurance premiums paid for the plan year ending June 30, 1983, the premiums paid under such "experience-rated" contracts were \$1,436,401. The total of all benefit claims under these "experience-rated" contracts during the plan year was \$1,058,520.

Long Term Disability Plan - Plan No. 508

Insurance Information

The Plan, which took effect on January 1, 1980, is operated under a contract with Teachers Insurance Annuity Association and College Retirement Equity Fund (TIAA/CREF) to pay certain long term disability claims incurred under the terms of the Plan.

Because it is an "experience-rated" contract, the premium costs are affected by, among other things, the number and size of claims. The total insurance premiums paid for the plan year ending June 30, 1983 under the "experience-rated" contract was \$754,267. The total of all benefit claims under the "experience-rated" contract during the plan year was \$251,352.

Self-Insured Long Term Disability Leave of Absence Plan

This portion of the coverage is the Long Term Disability Plan which was in effect prior to January 1, 1980. Cornell University has committed itself to certain long term disability claims incurred under the terms of this Plan.

Basic Financial Information

During the plan year, the Plan had total income of \$25,829 from employer contributions.

Plan expenses were \$25,829 in benefits paid to participants. This Plan will continue to pay benefits to participants who became eligible for such benefits prior to the adoption of the new Long Term Disability Plan described above.

Air Travel Insurance Plan - Plan No. 513

The summary of the Air Travel Insurance Plan is for the period February 7, 1982 to February 7, 1983.

The Plan has a contract with the Continental Casualty Company to pay all air travel death and dismemberment claims incurred under the terms of the Plan. The total premiums paid for the plan year ending February 7, 1983, were \$10,583.

RETIREMENT PLANS

Retirement Plan for Faculty and Exempt Employees of the Endowed Colleges (TIAA/CREF) - Plan No. 001

Basic Financial Statement

Benefits under the Plan are provided by individually owned, fully vested annuity contracts issued by Teachers Insurance Annuity Association and College Retirement Equity Fund (TIAA/CREF). The total premiums paid on behalf of individual policyholders for the plan year ending June 30, 1983, were \$7,765,432.

Tax-Deferred Annuity Plan - Plan No. 003

Basic Financial Statement

Benefits under this voluntary Plan are provided by individually owned, fully vested annuity contracts issued by Teachers Insurance Annuity Association and College Retirement Equity Fund (TIAA/CREF) and the Vanguard Group of Investment Companies. The total premiums, paid entirely by Plan participants, for the plan year ending June 30, 1983, were \$4,145,352.

Retirement Plan for Non-Exempt Employees of Cornell University Plan No. 004

Basic Financial Statement

Benefits under the Plan are provided by a trust agreement with Morgan Guaranty Trust. Plan expenses were \$1,417,354 in benefits paid to participants and beneficiaries. A total of 4,047 persons were participants in or beneficiaries of the Plan at the end of the plan year, although not all of these persons had yet earned the right to receive benefits.

The value of Plan assets, after subtracting liabilities of the Plan, was \$12,255,158 as of the end of the plan year, compared to \$7,968,967 as of the beginning of the plan year. During the plan year, the Plan experienced an increase in its net assets of \$4,286,191. This increase includes unrealized appreciation or depreciation in the value of Plan assets; that is, the difference between the value of the Plan's assets at the end of the year and the value of the assets at the beginning of the year or the cost of the assets acquired during the year. The Plan had total income of \$3,103,875, including employer contributions of \$2,389,855, gains of \$159,180 in the sale of assets, and earnings from investments of \$554,840.

Minimum Funding Requirements

The actuary's statement shows that enough money was contributed to the Plan to keep it funded in accordance with the minimum funding standards of ERISA. The Plan's actuary is Tillinghast, Nelson and Warren of Boston, Massachusetts.

Your Right to Additional Information

You have the right to receive copies of all of the full Annual Reports, or any parts thereof, on request. The items listed below are included in those reports:

1. Insurance information, including sales commissions paid by insurance carriers.
2. An accountant's report.
3. Actuarial information regarding the funding of the Retirement Plan for Non-Exempt Employees.

To obtain copies of the full Annual Reports, or any parts thereof, write or call Employee Benefits, University Personnel Services, 130 Day Hall, Ithaca, NY 14853 (607) 256-3936. The charge to cover copying costs will be \$1.00 for a full Annual Report or \$1.10 per page for any parts thereof.

You also have the legally protected right to examine the Annual Reports at the main office of the Plan Administrator at University Personnel Services, 130 Day Hall, Ithaca, NY and at the U.S. Department of Labor in Washington, D.C., or to obtain copies from the U.S. Department of Labor upon payment of copying costs. Requests to the Department should be addressed to: Public Disclosure Room, N4677, Pension and Welfare Benefits Program, Department of Labor, 200 Constitution Ave., N.W., Washington, D.C. 20216.

If you have any questions regarding any of the information presented in this summary, please contact Employee Benefits at 256-3936.

More Tax Deferral Options Will be Offered

Effective July 5, 1984, statutory and endowed faculty and staff at the Ithaca and Geneva campuses will be able to take advantage of additional Tax-Deferred Investment Options through mutual funds offered by The Fidelity Group and The Vanguard Group, according to Sam Gruenbaum, manager, employee benefits.

To compensate for certain Internal Revenue Service restrictions on mutual fund investments and to offer additional types of investment options, the Equitable Life Assurance Society and Unionmutual have also been chosen, according to Gruenbaum. The plan change was approved by the Board of Trustees in its March 24 meeting.

"Tax-deferred contributions are a means

of investing for a future retirement while reducing current federal and state tax liability," said Gruenbaum. "The contributions will be made through payroll deduction and will be subject the maximum limits regulated by the IRS, which can be calculated by Employee Benefits."

A selection committee consisting of faculty and non-academic staff members, Employee Benefits representatives, administration and investment personnel reviewed the investment alternatives. The committee based its review on faculty and staff interest in adding diversity and investment options to the current TIAA/CREF Retirement Plan.

When implemented, the alternatives will

be similar to those now being administered by the Cornell Medical College and will consist of approximately 40 investment options from money market funds, income funds, income and growth funds and stock and bond funds, according to Gruenbaum.

Meetings for faculty and staff with repre-

sentatives of the various companies are scheduled for early May. Additional information concerning the meetings, comparison charts, and highlights of the plan will be sent to employees prior to the May meetings.

Distinguished Musicologist To Visit Campus April 2-9

Edward T. Cone, a distinguished composer, concert pianist, critic and scholar at Princeton University, will be in residence here April 2-9 as an Andrew D. White Professor-at-Large. During his visit he will present a public lecture, take part in a concert and meet with music students in informal seminars. Cone is recognized as one of the finest living writers on music in English.

The lecture, "Debussy and the Art of Suggestion," is scheduled for 4:30 p.m. Tuesday, April 3, in Barnes Hall. The concert is scheduled for 8:15 p.m. Friday, April 6, in Barnes Hall and is made possible by the Department of Music, Cornell's 16th Festival of Contemporary Music and the A.D. White Professors-at-Large Program.

The concert program will include chamber music of the 20th century, written by Cone and by Joel Feigin, as well as works by Claude Debussy. Feigin is a Mellon Fellow at Cornell. Local artists performing with Cone and Feigin are: Laura Campbell, flute; Sonya Monosoff, violin; Karen Ritscher, viola; Lynden

Cranham, cello; Martin Amlin, piano; Michael Galvan, clarinet, and Mimmi Fulmer, soprano.

A 1939 graduate of Princeton University, Cone did graduate work at Columbia and Princeton, and in 1945 became one of the first recipients of a Woodrow Wilson Fellowship. He joined the music faculty at Princeton in 1946 and has held a Guggenheim Fellowship and the Ernest Bloch Professorship at the University of California.

Cornell's Professor-at-Large Program was founded in 1965 to give "Cornell's intellectual and creative community direct access to talents from all parts of the world." Professors-at-Large visit the Cornell campus periodically giving lectures, seminars and engaging in informal dialogues with students and faculty.

Cornell Chronicle

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It is the policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The university is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

New Technique Makes Molecular 'Movies' Possible

A new technique developed at the Cornell High Energy Synchrotron Source (CHESS) will allow scientists to observe the fast-moving life of hemoglobin and other complex macromolecules using high-speed, three-dimensional "movies."

The method, described in the current (March 30) issue of *Science*, will permit researchers to piece together millisecond images of biochemical reactions in a sort of macromolecular movie, an achievement that could rival Muybridge's first motion pictures of the galloping horse.

Called time-resolved x-ray Laue diffraction, the technique has already produced images of the crystal structure of proteins with "shutter speeds" as fast as 450 milliseconds (less than half a second), according to Keith Moffat, Cornell associate professor of biochemistry, molecular and cell biology. Exposures of 10 milliseconds will soon be possible, Moffat predicts. Coauthors of the paper are Doletha Szebenyi and Donald Bilderback.

"We want to follow changes in the three-dimensional structure of macromolecules, such as enzymes, hormones, hemoglobin and myoglobin," says Moffat.

"Enzymes catalyze the transformation of small molecules and undergo changes in structure during catalysis," Moffat explains, "but to understand the molecular details we have to produce a moving picture of the enzyme as it is carrying out its catalytic function."

"We need a faster shutter speed because these structural changes occur very rapidly," according to Moffat. "These reactions take place in milliseconds, or even microseconds (millionths of a second). But until now, x-ray pictures have required shutter speeds of tens of seconds or hours, and that is much too slow. By using Laue diffraction we have shortened the exposure times by a factor of a thousand or more. The faster

you can record an event, the easier it will be to piece together a reaction."

Having obtained single images with the new technique, the Cornell researchers are now reworking the apparatus to make rapid, repeat exposures. A set of images, each containing information on structural changes made in a very brief time span, will be spliced together to show the beginning, middle and end of a biochemical process.

This research is being funded by a \$1.5 million grant from the National Institutes of Health. This program is nicknamed MacCHESS for the Macromolecular Diffraction Biotechnology Resource at CHESS.

The CHESS laboratory uses one of the most intense sources of x-radiation in the world, the so-called synchrotron light produced as a byproduct at CESR, the Cornell Electron Storage Ring. Needle-sized bunches of electrons and positrons traveling around the half-mile-long storage ring (whose primary purpose is the study of particle physics) create a narrow, pulsed beam of photons in the x-ray region of the spectrum.

Diverted to the CHESS laboratory, the x-rays reflect off the lattice structure of crystals and produce patterns of spots on photographic film.

Before the Cornell researchers developed the Laue diffraction technique, experiments at CHESS and other synchrotron light sources depended on optical devices known as monochromators to select a very small portion of the continuous synchrotron x-ray spectrum, and to reject the rest.

"Monochromatization is generally believed to be essential in preventing superposition of multiple orders of reflections," the authors write in the *Science* paper, "but our results show that this is not necessarily true."

The Cornell team conceived of what might be called a "polychromator," an arrangement of mirrors and absorbers that forms a wide bandpass filter for synchrotron x-radiation, and produces thousands of reflections simultaneously with different x-ray wavelengths. The result is much more information in much less time. Analysis of data still takes weeks or months, but the researchers now have the ability to rapidly capture detailed data about the brief life story of a biochemical reaction.

The term Laue refers to the use of polychromatic radiation in x-ray diffraction and is named after Max von Laue, a German physicist who reported in 1912 the use of polychromatic x-rays to obtain the first diffraction pattern from a crystal. The Laue technique has been largely neglected since the early days of crystallography.

Researchers in chemical crystallography, solid state physics and surface diffraction will also find the technique useful, the authors predict.



Donald Bilderback, operations manager at CHESS, prepares apparatus used in the time-resolved Laue x-ray diffraction experiments.

Hines Named Director of Minority Educational Affairs



MAY B. HINES

May B. Hines, an administrator of minority student programs at Cornell for the last six years, has been named director of the Office of Minority Educational Affairs. It was announced last week by Provost W. Keith Kennedy.

Hines has been acting director of the office since November 1983 when Darwin Williams resigned. Her appointment as director is effective immediately, Kennedy said.

"For the past five months May has provided excellent leadership as acting director of the Office of Minority Educational Affairs," said Kennedy. "We were fortunate to have six well qualified applicants but Hines was my choice after discussing each of the candidates with a special advisory committee. I am confident that her professional experiences at Cornell, at Broome County Community College, Binghamton and elsewhere will be a major asset to Cornell."

Hines said her experience at Cornell will enable her "to strengthen a dialogue within the university community that generates policies that are flexible enough to meet the diverse needs of minority groups and to improve minority education overall."

"I will capitalize on Cornell's reaffirmation of its commitment to improve the education of all minority students," Hines said.

She said she will continue to work to increase minority enrollment and research opportunities for minority students, and to implement a five-year academic plan for minority students in the College of Arts and Sciences.

From November 1981 to November 1983, Hines was associate director for Minority Educational Affairs and director of New York State Opportunity Programs at Cornell. In the latter role, she was responsible for the Educational Opportunity Program and the Higher Educational Opportunity

Program.

Prior to that Hines spent 18 months as associate director of financial aid for financial aid programs. She came to Cornell in 1978 as assistant director of financial aid, and in 1979-80 was responsible for the administration of all of Cornell's minority student financial aid programs.

She joined the staff here after three years at Broome Community College in Binghamton. She was first a member of the admissions staff there and later became director of financial aid.

Hines taught for two years at Victor (N.Y.) Central High School. She spent four years in Social Security administration with the U.S. Department of Health and Human Services.

A graduate of St. Augustine's College in Raleigh, N.C., Hines has taken graduate courses at Syracuse and Cornell universities and in the Middle Management Seminar at Cornell.

New Financial Aid Director Is Appointed

Susan H. Murphy, an admissions and financial aid officer at Cornell since 1978, has been named director of the Office of Financial Aid, it was announced last week by James J. Scannell, dean of admissions and financial aid.

Murphy was named interim director of the office in October 1983 after William J. Bushaw resigned. Murphy's appointment is effective immediately, Scannell said.

He said that, "in a short period of time, Susan and her staff have done a great deal to enhance communication and service to all Cornell students. I'm sure they'll continue to make progress and to capitalize on the increased momentum established during the last six months."

Murphy said she feels they "have taken a step in the right direction," and that she is "excited about the energy, commitment and enthusiasm of the financial aid staff. Together, I think we can make the office a student support service that the campus expects and deserves."

Before assuming the interim director's position last fall, Murphy was senior associate director of admissions for two years. She coordinated all activities affecting the processing of about 18,000 undergraduate applications and supervised a staff of 16.

In 1982-83, Murphy was project leader for the implementation of the on-line, interactive financial aid management system that

was used for the first time.

Murphy came to Cornell in 1978 as associate director of admissions and regional coordinator for admissions activity in the southeastern United States.

She was a guidance counselor at Chatham (N.J.) High School from 1974 to 1978, chairing the department for the last two years. Murphy was a high school history teacher in Palo Alto, Cal., in 1973-74.

A 1973 graduate of Cornell's College of Arts and Sciences, Murphy holds master's degrees from Stanford University and Montclair (N.J.) State College. She is currently a Ph.D. candidate at Cornell.



SUSAN H. MURPHY

Calendar

March 1984						
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All items for publication in the Calendar section, except for Seminar notices, must be submitted (typewritten, doublespaced) by mail or in person to Fran Apgar, Central Reservations, 532 Willard Straight Hall at least 10 days prior to publication. Seminar notices should be sent to Barbara Jordan-Smith, News Bureau, 110 Day Hall, by noon Friday prior to publication. Items should include the name and telephone number of a person who can be called if there are questions, and also the subheading of the Calendar in which it should appear (lectures, colloquia, etc.). ALL DEADLINES WILL BE STRICTLY ENFORCED.

*—Admission charged.

Announcements

Reception

There will be a reception for prospective majors in English at 3:30-5 p.m. Wednesday, April 4, in the Temple of Zeus, Goldwin Smith Hall.

Ethics in Labor Relations

"Ethics in Labor Relations: Union and Management," a two-part series, will be presented on Monday and Tuesday, April 2 and 3. Management's view will be presented by Robert McCarty of TRW Corp. at 4 p.m. Monday; the union perspective will be presented by Tom Fricano from the United Auto Workers at 4 p.m. April 3. Both will be presented in Bache Auditorium, Malott Hall. Sponsored by the Student Committee on Professional Ethics of the Cornell Graduate School of Management.

Display at Uris Library

"The Caucasus, Their People and Culture," will be on display at Uris Library through April 15.

Creating the Possible

A weekend personal development program that supports participants to create new possibilities in their personal lives, relationships, and work. Led by Let Davidson, Ph.D., Saturday, Mar. 31 and Sun., Apr. 1 from 9 a.m.-7 p.m. each day. For more information and registration call 272-4131.

MUGWUMP

An organizational meeting of Macintosh User's Group for Writers of Unique Macintosh Programs will be held Thursday, April 5, at 4:30 p.m. in the Morrison Seminar Room, atrium of Corson-Mudd Building. People interested in program development on the Mac/Lisa are encouraged to participate and exchange ideas. There will be many advantages (price breaks, "inside" information, etc.) in joining a user group. Be one of the founding members. Contact Chris Pelie, evenings, 272-9402, or Tim Larkin, days, at 256-2003 for more information.

Dance

Thursday

Apr. 5, 9-11 p.m. Anabel Taylor One World Room. Jitterbug Club. Beginners 9-10 p.m. All welcome. For more information call Jim at 256-3440.

Polish Folk Dance Workshop

The Cornell Folkdancers are sponsoring a weekend workshop of Polish Folkdances taught by Morley Leyton, April 7 and 8 at the Gym of the former Henry St. John School. Program: Sat., Apr. 7, 10 a.m.-noon Teaching; 2-4 p.m. Teaching; 8-12 midnight International Party. Sun., Apr. 8, 11 a.m.-1 p.m. Review and Teaching. Price for the whole weekend is \$12, or \$3.50 per session. A get acquainted party will be held on Fri., Apr. 6, from 7:30-12 p.m. in the auditorium of Martha Van Rensselaer Hall. Everyone is invited. No partners needed. For more information call 257-3156 or 256-7149.

Exhibits

Olin Library

"Medieval Illuminated Manuscripts in Facsimile." Superb reproductions of sumptuous manuscripts—secular treatises on herbs, astronomy and ornithology, literary texts, Books of Hours, from the 6th to 16th centuries in Western Europe. Hours: 8 a.m.-5 p.m. Monday through Friday, through May 1.

Herbert F. Johnson Museum

"Figures from Rodin's 'Gates of Hell': Sculpture from the B.G. Cantor Collection," through Sun., Apr. 1. "A Process of Design: Drawings and Sketches by Le Corbusier"

through Apr. 22. "Irene Whitome: Incunabula of a Bridge-Takuma Project." through Apr. 22. "Portrait of India: Photographs by H.R. Ferger" through Apr. 15. The Museum is open to the public with free admission Tuesday through Sunday, 10 a.m.-5 p.m.

Films

Film Series

During the month of April there will be a series of films shown to benefit 40 American Indian cross-country runners from the Ononga Nation.

The group will be running from the Onondaga Nation to the Jim Thorpe Memorial Games in Los Angeles, Calif.

The film series is being sponsored by students in the American Indian Studies Program. The series schedule is:

—8 a.m. Wednesday, April 4, in Kaufmann Auditorium, Goldwin Smith Hall, "Broken Treaty at Battle Mountain";

—8 p.m. Wednesday, April 11, Goldwin Smith D, "More Than Bows and Arrows," and

—8 p.m. Wednesday, April 25, Goldwin Smith D, "The Four Corners: A National Sacrifice Area."

A \$1 donation will be collected at the door the nights of the showings.

Unless otherwise noted films are sponsored by Cornell Cinema.

Thursday

Mar. 29, 8 p.m. Uris Hall Auditorium. "Tell Me a Riddle" (1981), directed by Lee Grant, with Melvyn Douglas, Lila Kedrova, Booke Adams.

Friday

Mar. 30, 8 p.m. *Uris Hall Auditorium. "Gallipoli" (1981), directed by Peter Weir, Mel Gibson, Mark Lee.

Mar. 30, 10 p.m. *Uris Hall Auditorium. "The Story of Adele H." (1975), directed by Francois Truffaut, with Isabelle Adjani.

Saturday

Mar. 31, 8 p.m. *Uris Hall Auditorium. "The Story of Adele H."

Mar. 31, 10:15 p.m. *Uris Hall Auditorium. "Gallipoli" (1981).

Sunday

Apr. 1, 2 p.m. Johnson Museum Lecture Room. "The Other Side #4: Italy." Avante Garde Italian Cinema. Free and open to the community.

Apr. 1, 8 p.m. *Uris Hall Auditorium. "Freud" (1962), directed by John Huston, with Montgomery Cliff and Susannah York.

Monday

Apr. 2, 8 p.m. *Uris Hall Auditorium. "Breathless" (1959), directed by Jean-Luc Godard, with Jean-Paul Belmondo and Jean Seberg. Co-sponsored by the English Department.

Apr. 2, 9 p.m. *Uris Hall Auditorium. "La Dolce Vita" (1961), directed by Federico Fellini, with Marcello Mastroianni and Anita Ekberg. Limited to Film Club Members.

Tuesday

Apr. 3, 8 p.m. *Uris Hall Auditorium. "Chan is Missing" (1981), directed by Wayne Wang, with Marc Hayashi and Wood May. Co-sponsored by NYSCA.

Wednesday

Apr. 4, 8 p.m. *Uris Hall Auditorium. "To Be or Not to Be" (1942), directed by Ernst Lubitsch, with Carole Lombard and Jack Benny. Co-sponsored by NYSCA. Shown with: Lubitsch's "Madame Dubarry."

Apr. 4, 8 p.m. *Goldwin Smith Kaufman Auditorium. "Broken Treaty at Battle Mountain." A film to benefit American Indian Runners coached by Dennis Banks. \$1 donation suggested, (no one turned away). Sponsored by the American Indian Studies Program.

Thursday

Apr. 5, 8 p.m. Uris Hall Auditorium. "Guambianos" (1983), Colombia. This documentary presents contemporary village scenes of the Guambiano Indians, one of the indigenous peoples of Colombia's Andean highlands. Sponsored by the Committee on U.S. Latin American Relations and the Latin American Studies Programme.

Lectures

Monday

Apr. 2, 4:30 p.m. Goldwin Smith 281. Fiction writer Pierrette Fleutiaux will talk in French on "Literary Approaches to the Real." Sponsored by Romance Studies.

Apr. 2, 7:30 p.m. Anabel Taylor One World Room. America and World Community: "How TV Alters the Thought Environment," Rose Goldsen, Professor of Sociology.

Tuesday

Apr. 3, 4:30 p.m. Barnes Hall Auditorium. Public lecture: "Debussy and the Art of Suggestion," Edward T. Cone, Professor of Music,

Princeton University, and A.D. White Professor-at-Large.

Wednesday

Apr. 4, 3:30-5 p.m. Anabel Taylor Alternatives Library. "Daniel Ellsberg on Disarmament," Recorded in 1981 at Cornell

Apr. 4, 7:30 p.m. Anabel Taylor One World Room. America and World Community: "How TV Alters the Thought Environment," Rose Goldsen, Professor of Sociology.

Thursday

Apr. 5, 4:30 p.m. Morrill Hall 106. Cornell Linguistic Circle Speaker Series: "On Recent Analyses of the Semantics of 'Control': Solution in Search of a Problem?" David R. Dowty, Professor of Linguistics, Ohio State University.

Apr. 5, 4:30 p.m. Goldwin Smith Hollis Cornell Auditorium, English Department Lecture: "Romantic Rhetoric: The Search for Grounds in Literary," Hillis Miller, Professor, Yale University.

Apr. 5, 12:20 p.m. 102 West Ave. Southeast Asia Program Thursday Luncheon Seminar:

"Burma's Response to the West: The Case of King Mindon's Foreign Policy," U Myo Myint, SEAP Graduate Student in Southeast Asian History, Cornell.

Meetings

Tuesday

Apr. 3, 7:30 p.m. Uris Hall 202. Amnesty International meeting. All welcome. For more information, write Amnesty International, Willard Straight Hall, Cornell University.

Music

Vladimir Ashkenazy

Russian pianist Vladimir Ashkenazy, described by major American critics as brilliant and awesome, will perform at 8:15 p.m. Friday, April 13, in Bailey Hall. This will be his fourth appearance on the Cornell campus.

Tickets for the concert will go on sale Monday, April 2, at the Lincoln Hall Ticket Office, open 9 a.m.-1 p.m. Monday through Friday. The telephone number is 256-5144.

Free bus service will be provided for concertgoers between parking Lot B and Bailey Hall, with a stop at the Dairy Bar beginning at 7:30 p.m.

Ashkenazy will perform Schubert's Sonata in B-flat Major, Op. Posthumous, D. 960 and Schumann's Papillons, Op. 2.

Born in Russia in 1937, Ashkenazy studied at Moscow's Central Music School under Anaida Sumbatian. While still a teenager, he began to gather prizes, including a first prize at the Queen Elizabeth Competition in Brussels in 1956, which immediately brought him to the attention of the international concert world. Among his other awards is first prize in the Second International Tchaikovsky Competition in Moscow in 1962.

Ashkenazy first toured the United States in 1958 and won unprecedented acclaim. He has visited the United States annually since then.

During the past few years Ashkenazy has devoted part of his schedule to conducting and has worked closely with the Philharmonia Orchestra of London, which has recently appointed him Principal Guest Conductor.

His recently released recordings of the entire Beethoven Sonata opus was praised by the New York Times as "the finest overall view of this music in modern times."

Saturday

Apr. 7, 8:30 p.m. *Anabel Taylor Auditorium. "Touchtone" (featuring Triona Ni Dhomhnaill). Old-time, bluegrass, Nova Scotian, and Irish blend. Tickets: \$5 (adv.), \$6 (door).

Religious Announcements

Hillel

Hillel is sponsoring a Pesach (Passover) workshop on Wednesday, April 4 & 11, from 8-10 p.m. in the Hillel Office, G-34 Anabel Taylor Hall.

Wednesday

Apr. 4, 8 p.m. Anabel Taylor Edwards Room. "Kibbutz into the '80's," Ken Bob, Kibbutz Aliyah Desk and member of Kibbutz Cezer, and Bill Gibson, Eco-Justice at Cornell.

Religious Services

Friday

Mar. 30 Erev Shabbat Services (Orthodox Minyan). Call 272-5810 for information.

Saturday

Mar. 31, 9:15 a.m. Anabel Taylor Edwards Room. Erev Shabbat Services (Orthodox Minyan).

Sunday

Apr. 1 University Recess. No Sage Chapel Speaker.

Friday

Apr. 6, 6 p.m. Anabel Taylor Chapel. Erev Shabbat Services (Reform Minyan).

Apr. 6, 6 p.m. Anabel Taylor Founders Room. Erev Shabbat Services (Conservative/Egalitarian Minyan).

Apr. 6 Erev Shabbat Services (Orthodox Minyan). Call 272-5810 for information.

Saturday

Apr. 7, 9:15 a.m. Anabel Taylor Edwards Room. Shabbat Services (Orthodox Minyan).

Apr. 7, 10 a.m. Anabel Taylor Founders Room. Shabbat Services (Conservative/Egalitarian Minyan).

Sunday

Apr. 8, 11 a.m. Sage Chapel. Speaker: Michael Mahler, University Catholic Chaplain.

Apr. 8, 3 p.m. Anabel Taylor Chapel, Korean Church service.

Seminars

Agricultural Economics: "1985 Farm Bill Policy," Robert L. Thompson, Council of Economic Advisors, 4 p.m. Monday, April 2, 401 Warren Hall.

Agricultural Economics: "The Green Revolution—A Focus for Political Economic Struggle," Harry Cleaver Jr., University of Texas at Austin, 3 p.m. Friday, April 6, 311 Mann Library (conference room).

Anthropology: "Indigenous Political Organizations in Latin America in the 1980s," Jason Clay, director of publications for Cultural Survival, 4:30 p.m. Wednesday, April 4, 101 Warren Hall. On Thursday, April 5, Clay will give a talk entitled "Ethnicity and Refugee Flows," at 4:30 p.m. in 305 McGraw Hall.

Applied Math—The Bill Sears Club: "Overview of Math Methods of Defense Analysis," Jeff Grotte, Institute for Defense Analysis, 2:30 p.m. Friday, April 6, 26 Olin Hall.

Applied Mathematics: "A Kuratowski Theorem for General Surfaces," Paul Seymour, Bell Communications Research, 4 p.m. Friday, April 6, 165 Olin Hall.

Astronomy and Space Sciences: "Methanol Masers and Related Matters," Tom Wilson, Max Planck Institute, 4:30 p.m. Thursday, April 5, 105 Space Sciences Building.

Biochemistry: "How the Flagellar Rotary Motor Might Work," Howard Berg, Cal Tech, 4:30 p.m. Thursday, April 5, 204 Stocking Hall.

Biochemistry: "Genetic Analysis of the Yeast Cytoskeleton," Peter Novick, MIT, 4:30 p.m. Friday, April 6, 204 Stocking Hall.

Biophysics: "Measurement of Cellular Viscoelasticity as a Probe of Cellular Mechanical Function," Elliot Elson, Washington University School of Medicine, 4:30 p.m. Wednesday, April 4, 700 Clark Hall.

Boyce Thompson Institute: "Cytoskeletal Systems in Mitosis and Organelle Motility in Fungi," I.B. Heath, York University, 3:15 p.m. Wednesday, April 4, Boyce Thompson Institute Auditorium.

Education: "An Introduction to Apple Super Pilot: A CAI Authoring Language for the Apple," Dalva Hedlund, 4:30 p.m. Monday, April 2, Stone Hall Lounge.

Ecology and Systematics: "Foraging Behavior and the Chemistry of Host-plant Selection by a Leaf-cutting Ant," Stephen P. Hubbell, University of Iowa, 4:30 p.m. Wednesday, April 4, Morrison Seminar Room, Corson Hall.

Floriculture and Ornamental Horticulture: "Turfgrass Growth as Influenced by Secondary Treated Sewage Sludge and Heavy Metals," A. Martin Petrovic, 12:15 p.m. Thursday, April 5, 37 Plant Science Building.

Food Science: "Osmotolerant Yeasts as Food Spoilage Organisms," L.M. Lenovich, Hershey Foods Corp., 4:30 p.m. Tuesday, April 3, 204 Stocking Hall.

Genetics: "The Genetic and Molecular Organization of a Dense Cluster of Genes Involved in Catecholamine Metabolism and Sclerotization in Drosophila," 4 p.m. Monday, April 2, 135 Emerson Hall.

Genetics and Development/Plant Biology: "Recent Developments with Plant Single and Double Stranded DNA Viruses," Stephen Howell, University of California at San Diego and CSIRO, Australia, 4 p.m. Thursday, April 5, 135 Emerson Hall.

Geology: Title to be Announced, J. Spang, Texas A&M, 4:30 p.m. Monday, April 2, 205 Thurston Hall.

Geology: "Experiments on Mantle Plumes,"

Summary of Trustee Actions

Kiplinger Elected New Trustee Board Chairman

Succeeds Jansen Noyes Jr.; Takes Office July 1



Board chairman-elect Austin H. Kiplinger (left) with out-going chairman Jansen Noyes Jr.

Austin H. Kiplinger, editor-in-chief of Changing Times magazine and the weekly Kiplinger Washington Letter, was elected chairman of the Board of Trustees at its meeting here last weekend.

Kiplinger, a member of the Cornell board since 1960 and vice chairman since last May, succeeds Jansen Noyes Jr., who served as board chairman for six years. Noyes will retire from the board June 30 after 23 years as a Cornell trustee.

Kiplinger will begin a one-year term on July 1. Usually the board chairman is elected for a three-year term, but since Kiplinger's term on the board ends June 30, 1985, university bylaws limit him to one year at this time, according to Harvey E. Sampson, chairman of the Committee on Board Membership.

Kiplinger has spent more than 40 years reporting business and national affairs. He has maintained a non-partisan policy in his reporting and says he sees his job as "helping people make sound personal and business decisions."

He became a working journalist after graduation from Cornell in 1939. He joined the staff of the Kiplinger Washington Letter, and later became a reporter for the San Francisco Chronicle and a business columnist for the Chicago Journal of Commerce.

For six years Kiplinger was a commentator on the ABC and NBC networks, specializing in political and economic news.

His broadcasts covered the national election campaigns of 1952 and 1956.

During more than 20 years of service to the Cornell board, he has served on several standing committees: Board Membership, Investment, Executive and chairman of the Development Committee from 1978 to 1982.

Kiplinger has also been on several board ad hoc committees, serving as chairman of both the Board Study Committee from 1981 to 1983, and chairman of the Search Committee that brought President Frank Rhodes here in 1977.

Other committee assignments included the Committee on Special Educational Projects, University Senate, Long Range

Financial Planning and Investments in South Africa.

He now serves as chairman of Cornell's Performing Arts Advisory Committee. He was chairman in the final year of the Cornell Campaign that raised \$250 million.

Kiplinger's civic activities include service as a trustee of the Washington Journalism Center and the Federal City Council. He has been a director of the National Symphony Orchestra since 1975 and served as its president from 1978 to 1980.

Kiplinger and his wife, Mary, have two sons — Todd, a member of the Cornell Class of 1968, and Knight, Cornell Class of 1969.

Housing Gets \$2.2 Million

The Board of Trustees has appropriated \$2.2 million to cover major maintenance and refurbishing of student housing facilities during 1984-85. The appropriation covers the seventh year of a long-term student housing renovation program.

According to William P. Paleen, director of Residence Life, projects during 1984-85 include the renovation of Lyon Hall and renovation and asbestos removal in North Campus Dormitories 1, 8 and 10.

Paleen said these projects will be funded through a State Dormitory Bond Issue (see related story) and will be repaid from departmental revenues: \$440,000 within 10 years and the balance of \$1,760,000 within 30 years.

The 1984-85 projects are the second year of a five-year \$12 million program approved in May of 1983 and which was the second five-year program in a long term student housing renovation plan at the university.

Budget Policies Are Approved; Tuition Will Increase 7.9 Percent

Tuition in the endowed undergraduate colleges and the Graduate School at Cornell will increase 7.9 percent in 1984-85 from \$8,900 to \$9,600.

The typical costs of attending an endowed undergraduate college at Cornell next year, including tuition, fees, room and board, will increase 7.0 percent to \$13,005.

These were among the financial recommendations passed today by the Board of Trustees.

The proposed tuition for Cornell's endowed undergraduate colleges is expected to be the lowest among the Ivy League, which ranges from \$10,400 for tuition and fees at Harvard to Cornell's cost of \$9,600. However, when Cornell is compared to the 11 institutions that compete most frequently for those students accepted by Cornell, such as M.I.T., Tufts, Michigan State, the University of Rochester and SUNY Binghamton, Cornell's prices are just above the midpoint of this group.

Tuition increases approved in the professional schools were as follows for 1984-85:

Graduate School of Management, \$10,250

up 7.9 percent from \$9,500.

Law School, \$9,920 up 7.0 percent from \$9,270.

Medicine, \$13,660, up 8.0 percent from \$12,650.

Tuition for the statutory units at Cornell is fixed in consultation with the State University of New York, and has not been set yet. Tuition for a resident undergraduate, which was \$3,740 in 1983-84, is expected to increase between 8.6 and 10.3 percent. The exact sum depends upon the tuition increase for the SUNY-operated units. In the past, the statutory units at Cornell have increased their tuition a fraction of the total increase mandated for the SUNY-operated campuses.

The approved budget proposals also call for an average of a 3.3 percent increase in student dining contracts, and a 6.0 percent increase in student housing contracts. These lower than expected rate increases for housing and dining will reduce the rate of increase in self-help asked of students receiving financial aid.

Background documents given to the board stated that, "It is important that the

rate of increase in self-help expectations be restrained as much as possible." The average level of self-help for Cornell students during 1984-85 will be \$4,350, up 3.6 percent from the average level in 1983-84.

Also in the approved budget policies for the endowed sector is a recommended salary improvement pool of 7 percent for academic staff, (a pool of 5.5 percent in July and 3 percent in January for faculty), and a 6 percent pool for non-academic staff. An objective of this upgrading program for faculty is to have the average faculty salary at Cornell at about the 80th percentile of 27 major research universities. Cornell is now slightly below this level. The 6 percent pool for non-academic support staff was established to keep Cornell's competitive position in attracting new staff.

Background information given to the board stated that the university budget was developed with the overall goal of enhancing Cornell's quality while working

with a balanced budget, now and in the future. This called for a 2 percent reduction in general purpose allocations to academic and non-academic support sectors. This reduction is needed to contain projected deficits for 1985-86 and 1986-87.

Other key considerations that guided the shaping of budget policies, according to documents prepared for the board, were the need to maintain the purchasing power of invested funds, to maintain facilities and to balance growth in income against expenses.

Various university groups made suggestions during the development of the budget policies. They include the Committee on Professional and Economic Status of the Faculty, the Faculty Committee on Admissions and Financial Aid, the Faculty Council of Representatives Budget Committee, the University Assembly Budget Policies Committee, the Deans' Council and the Planning and Budgeting Priorities Group, chaired by the Provost.

\$105 Million in Dormitory Authority Bonds Is Sought

The Board of Trustees has authorized the administration to negotiate the issuance of up to \$105 million in bonds through the Dormitory Authority of the State of New York to help finance and refinance a series of continuing building and capital improvement projects on campus.

The university's last external debt financing came in 1982 when a four-year \$43.1 million note was authorized. The board approved the new borrowing, which will incorporate the Series 1982 note, at its regularly scheduled meeting on campus last weekend.

With the board's authorization and antici-

ated action by the Dormitory Authority later this month, it is expected the authority may market a 1984 Cornell bond issue as early as April.

The bond issue will cover the financing of projects which currently total \$98,563,000. The projects, many of which are already under construction, include computer equipment, student housing (see related story), telecommunications (see related story), transportation (see related story), utilities and a number of other projects including expansion of the Cornell Plantations.

Telecommunications System For Campus Gains Approval

The Board of Trustees authorized \$17.4 million for the installation of a Cornell-owned and maintained campus-wide telecommunications system for voice, computer data and video.

In addition to estimated annual savings of \$583,000 in 1986-87, the first year of full operation, the system will improve voice service throughout the campus and form the basis for a computer data and video network.

The savings is calculated on an estimated total cost including debt service of \$3,531,000 in 1986-87, as compared to an expected bill of \$4,114,000 that year from New York Telephone, if the university were to continue to use that service.

According to Robert M. Matyas, vice

March 29, 1984

Please Post

Number 13

Cornell University

University Personnel Services

Day Hall

Ithaca, New York 14853

607/256-5226

Please Note:

Job Opportunities is a publication of Staffing Services and is distributed each Thursday through the Cornell Chronicle. Applications for employment can be submitted through the mail. Application forms

are available by the posted **Job Opportunities** listing at 130 Day Hall. For more information on jobs listed, contact Staffing Services, 130 Day Hall, (607) 256-5226.

Employee Transfer Applications: Employees who wish to transfer to other jobs within the University should complete a separate Employee Transfer Application form for each position and submit them to Staffing Services. Individuals with official University layoff status will be given preference in referrals.

In response to the Employee Survey, individual copies of **Job Opportunities** will be available for all employees; complete job posting will be published Thursday of each week in the **Chronicle**. Consequently, the list will no longer be published in its previous form.

This listing is also available on CUINFC, Cornell University's computerized information service, along with campus bus,

movie, dining facility and library schedules. Each regular Cornell employee is entitled to a free computer account. For further CUINFO details, contact the Information and Referral Center at 256-6200 or Computer Services.

Selected job announcements are broadcast on Channel 13 television each Tuesday at 9:30 a.m. and 7:15 p.m. and each Friday at 11 a.m. and 5:15 p.m.

New vacancies are listed for two weeks in **Job Opportunities**.

*Asterisks identify jobs that were not listed last week.

Full-time jobs are 39 hours per week unless otherwise indicated. Jobs listed as SO, U1 and U2 are represented by bargaining units.

*Asterisks identify jobs that were not listed last week.

Job Opportunities

Cornell University is an equal opportunity, affirmative action employer.

Administrative/Professional

*Position: Senior Researcher & Writer
Department: President's Office

Description: To identify, analyze and describe issues impacting research and higher education, and to assist in preparing speeches, position papers and articles for senior executive.

Requirements: Bachelor's degree or equivalent. Requires demonstrated experience writing at senior executive level including editorial, research and speech writing skills and successful prior publication of work in a variety of media. Exceptional literary, intellectual breadth, media experience, interpersonal skills and personal flexibility essential. Closing date for applications: April 16, 1984.

Job Number: P133

*Position: Development Officer III

Department: Public Affairs Regional Offices/Boyce Thompson Institute

Description: As Director of Development for Boyce Thompson Institute, is responsible for planning, coordinating, implementing and directing the total gift program for the Institute under the direction of the Executive Director of Boyce Thompson Institute and the Director of Regional Offices/Academic Support Units.

Requirements: Bachelor's degree or equivalent. At least 3-5 years experience working with faculty and volunteer groups. Demonstrated managerial ability. Excellent interpersonal and communication skills. Willingness to travel essential. Knowledge of a research environment preferred.

Minimum Starting Salary: \$20,000

Job Number: P134

*Position: Computer Staff Specialist

Department: Computer Services

Description: Perform technical consulting with departments, faculty, staff and students on personal computer hardware and software. Provide user education on PC's through presentations and documentation. Evaluate hardware and software products.

Requirements: Bachelor's degree or equivalent combination of education and experience. Considerable (3-5 years) experience with personal computers required (preferably IBM, DEC and Apple). Strong interpersonal (oral and written) skills desirable. Data communications desirable.

Minimum Starting Salary: \$15,500

Job Number: PT135

*Position: Staff Writer II

Department: Hotel Administration

Description: Write, edit and coordinate production of brochures, newsletters, information catalogs, publicity, correspondence and other printed materials distributed to the public by the School of Hotel Administration.

Requirements: Bachelor's degree or equivalent. Professional editing and writing experience required. Knowledge of typography, design, printing and production very desirable. Must be well organized, detail-oriented.

deadline-conscious and able to work well with a wide variety of individuals. Send cover letter, resume and writing sample to Staffing Services by May 1, 1984.

Minimum Starting Salary: \$12,500

Job Number: PC131

Position: Public Affairs Regional Director, Northeast Regional Office (Repost)

Department: Public Affairs Regional Offices - Northeast Region, Wellesley, Mass.

Description: Plan, organize and direct a comprehensive regional public affairs program representing the University in its alumni affairs development, public relations and alumni secondary schools activities. Recruit, train and manage an extensive alumni volunteer regional network in close coordination with the University's central public affairs and college programs.

Requirements: Bachelor's degree or equivalent. 3-5 years experience in public affairs, development and/or alumni relations in higher education or closely related field. Demonstrated managerial ability. Excellent communication and writing skills and a strong commitment to volunteerism. Willingness to travel and work in a complex organization with diverse individuals and groups.

Minimum Starting Salary: \$15,500

Job Number: P072

Position: Research Support Specialist III

Department: National Submicron Facility

Description: Supervise and operate silicon processing facilities, including thermal processing furnaces, dual e-gun evaporator and reactive ion etchers for the purpose of providing a user research resource to scientists from Cornell and across the country. Carry out research with these systems, assist in report and article writing and maintenance of system. Oversee two staff members and several graduate students.

Requirements: Master's degree or equivalent in electrical engineering, materials science, physics, or related field. Some silicon device and circuit fabrication work experience.

Minimum Starting Salary: \$15,500

Job Number: PT112

Position: Research Support Specialist III

Department: Clinical Sciences - Theriogenology

Description: Provide technical support in biomedical engineering for a research group specializing in reproductive biology. Duties will involve the design and production of electronic equipment as well as computer and microprocessor-aided data acquisition systems and programming.

Requirements: Master's degree or equivalent in electrical engineering. Electronic equipment design and troubleshooting. Computer programming. Some experience in bioengineering would be useful.

Minimum Starting Salary: \$15,500

Job Number: P088

Clerical

All applicants interested in positions requiring typing must take an official university test. Tests are given Mondays and Wednesdays at 8:10 a.m., Room 337, Statler Hall. Please contact Staffing Services for an appointment.

*Position: Administrative Aide, GR21

Department: Clinical Sciences/Administration

Description: Provide administrative assistance to the Assistant Dean for Hospital Administration. Manage incoming documents; monitor status of documents and project requests; receive and screen daily administrative requests; assist in editing administrative proposals and reports; act as committee secretary; office management; typing; shorthand; filing.

Requirements: Associate's degree or equivalent. Medium typing. At least 2-5 years administrative or executive secretary experience. Ability to handle confidential materials with discretion essential. Ability to exercise independent judgment.

Minimum Starting Salary: \$11,875

Job Number: C137

*Position: LC Cataloger, GR20

Department: Catalog - Olin Library

Description: Catalog monographs with Library of Congress copy on the Humanities Team utilizing the RLIN system. Other cataloging duties as assigned.

Requirements: Academic background in humanities with Bachelor's degree or equivalent experience or training. Light typing. Foreign languages competence desirable; previous work experience in libraries, especially technical services (one year or more highly preferred). Ability to perform detailed work with speed and accuracy.

Minimum Starting Salary: \$11,180

Job Number: C139

*Position: Secretary, GR19

Department: Lab of Atomic & Solid State Physics (LASSP)

Description: Provide secretarial support for 4-5 faculty members and their research groups. Duties include assisting professors in preparation of grant proposals; typing and preparing articles for publication; maintaining professors' calendars and making travel arrangements.

Requirements: Associate's degree or equivalent in secretarial science. Heavy typing. Good technical typing and communication skills essential. Knowledge of Cornell and Ithaca communities helpful. Strong organizational skills. Ability to work independently. Experience with Microm word processor helpful.

Minimum Starting Salary: \$10,595

Job Number: C132

*Position: Secretary, GR18

Department: Cornell's Adult University

Description: Prepare registration and course materials for CAU programs; record and process registrations; correspond with registrants;

handle telephone inquiries regarding programs. Monday-Friday, 8:00 a.m. - 4:30 p.m. or 8:30 a.m. - 5:00 p.m.; some Sundays during summer.

Requirements: H.S. education or equivalent. Business or secretarial school preferred. Heavy typing. At least 2-3 years previous office experience. Must be a skilled and highly accurate typist. Excellent spelling, grammar and editing skills. Familiarity with University setting helpful.

Minimum Starting Salary: \$10,000

Job Number: C136

*Position: Secretary, GR18

Department: Operations Research and Industrial Engineering

Description: Perform secretarial and receptionist duties; type correspondence, reports and classwork including some technical material; provide word processing assistance on MICOM; answer phones; perform routine accounting functions; other duties as assigned.

Requirements: H.S. education or equivalent. Business or secretarial school preferred. Medium typing. At least 1-2 years previous secretarial experience; familiarity with bookkeeping helpful. Willingness to learn word processor. Good interpersonal skills.

Minimum Starting Salary: \$10,000

Job Number: C138

*Position: Secretary, GR18

Department: Seed & Vegetable Sciences, Geneva, NY

Description: Secretary for two Cooperative Extension Specialists. Duties include typing correspondence, reports and manuscripts; maintaining mailing lists and files; answering telephones. Other secretarial duties as assigned.

Requirements: H.S. education or equivalent. Business or secretarial school preferred. Heavy typing. At least 2-3 years secretarial experience. Skill in using word processing equipment and programs. Ability to transcribe from dictating equipment. Experience in Cooperative Extension preferred.

Minimum Starting Salary: \$10,000

Job Number: C134

*Position: Office Assistant, GR17

Department: Office of the Bursar

Description: Process incoming and outgoing mail for Bursar, Cornellcard and Student Loans; act as department receptionist; set up appointments and answer telephones; type departmental letters and reports; maintain correspondence file. Other duties as assigned.

Requirements: H.S. education or equivalent. Heavy typing. Some experience in general office work. Good typing and spelling skills. Good mathematical and grammatical skills. Knowledge of word processor helpful.

Minimum Starting Salary: \$9,492

Job Number: C131

*Position: Office Assistant, GR16

Department: Graduate School

Description: This position fulfills the communications function for the Graduate School by overseeing the switchboard and mail desk. Re-

sponsible for all incoming and outgoing U.S. and campus mail; maintain the mail flow to and from the 85 graduate fields; provide general information via telephone and routing incoming calls to the respective Graduate School offices.

Requirements: H.S. education or equivalent. Light typing. Good communication and public relations skills. Good reading (speed, accuracy) skill. Ability to work under pressure.

Minimum Starting Salary: \$9,040
Job Number: C135

Position: Administrative Aide, GR21
Department: Care of Buildings

Description: Provide administrative and secretarial support to Superintendent and staff. Responsibilities include typing, transcription and editing; organizing and scheduling appointments and meetings; establishing and maintaining office filing system; collecting data and preparing reports; interfacing with public and Cornell staff; overseeing temporary office staff and assisting with special projects.

Requirements: Associate's degree or equivalent. Heavy typing. Extensive administrative/secretarial experience. Strong organizational, interpersonal and communication (oral and written) skills. Ability to work under pressure in a complex, active environment. Ability to handle highly sensitive and confidential matters. Accuracy and attention to detail essential. Training and/or experience with personal computer (IBM/Apple) preferred.

Minimum Starting Salary: \$11,875
Job Number: C126

Position: Office Assistant, GR20

Department: Cornell Plantations

Description: Plantations Gift Shop Manager. Responsible for the planning and daily management of the Plantations Garden Gift Shop. Coordinate guided group tours of Plantations.

Requirements: Associate's degree or equivalent. Light typing. Two years retail sales management experience required.

Minimum Starting Salary: \$11,180
Job Number: C123

Position: Office Assistant, GR20

Department: Computer Services

Description: Disburse information and answer basic questions related to personal computers, terminals and communications; receive and process customer requests for services (purchase, lease and repair of equipment); track the status of projects; prepare source documents for a computer generated billing; typing, filing and answering telephones.

Requirements: Associate's degree or equivalent combination of education and experience. Light typing. Strong interpersonal and organizational skills essential. General administrative typing and telephone skills desirable. Familiarity with personal computers and terminals helpful. Ability to work under pressure in a complex, active environment.

Minimum Starting Salary: \$11,180
Job Number: C122

Position: Secretary, GR18

Department: Center for Radiophysics and Space Research Laboratory for Planetary Studies

Description: Wide variety of secretarial duties including typing of scientific papers, handling heavy volume of correspondence; preparing purchase orders, vouchers; putting government grantrelated material into final form; totally responsible for maintaining an extensive file system in an efficient manner to facilitate quick retrieval of information. Xeroxing, mailing and filing of all of the above is a fundamental part of this job.

Requirements: Secretarial school or equivalent experience required. Heavy typing. Excellent organizational skills. Fast, accurate typing. Excellent spelling and grammar required. Excellent telephone etiquette and ability to work under pressure in a complex, active environment.

Minimum Starting Salary: \$10,000
Job Number: C129

Position: Office Assistant, GR18

Department: Graduate School - Admissions Office

Description: Process graduate applications, admissions, refusals and other actions as authorized; maintain records; type correspondence; maintain admission statistics; provide information to faculty and applicants.

Requirements: H.S. education or equivalent; business or secretarial school preferred. Medium typing. Knowledge of Xerox 860 desirable. Strong organizational skills. Attention to detail. Accuracy essential. Ability to work independently and under pressure. Familiarity with academic environment (terms) desirable.

Minimum Starting Salary: \$10,000
Job Number: C1212

Position: Secretary, GR18

Department: Facilities & Business Operations

Description: Typing, filing, answering telephone; scheduling meetings; arranging travel; maintaining office supply inventory. Other duties as assigned.

Requirements: H.S. education or equivalent. Heavy typing. Some secretarial experience. Excellent organizational and interpersonal skills. Ability to handle confidential materials with discretion essential. Knowledge of word processor (IBM Displaywriter) essential.

Minimum Starting Salary: \$10,000
Job Number: C125

Position: Secretary, GR18

Department: Human Development & Family Studies, New York City

Description: Under the general direction of the New York City Family Life Development Center Coordinator, provide clerical and secretarial support for professional staff in New York City and support functions for New York City Resource Library. Duties include typing, filing, answering telephone. Other duties as assigned. full-time, regular until 9/30/84.

Requirements: H.S. education or equivalent. Medium typing. Office experience helpful. Strong organizational, interpersonal and communication skills.

Minimum Starting Salary: \$10,000
Job Number: C124

Position: Administrative Aide, GR20

Department: University Registrar

Description: Provide administrative and advanced word processing support for University Registrar and Vice Provost for Undergraduate Education. Process diplomas; manage daily operations of the office system components of University Registrar's minicomputer system; type correspondence, manuscripts; make travel arrangements; maintain calendar; answer telephone; handle special projects as assigned.

Requirements: Associate's degree or equivalent. Heavy typing. At least two to three years administrative and/or secretarial experience. Knowledge of word processor or computer. Excellent organizational, interpersonal and communication (written and oral) skills; discretion in dealing with confidential matters.

Minimum Starting Salary: \$11,180
Job Number: C119

General Service

***Position: Journeyman Control Person, U100**
Department: Maintenance & Service Operations

Description: Perform important temperature control work in research and educational facilities. Investigate temperature control problems by daily troubleshooting of environmental heating, ventilation and air conditioning systems. Repair and calibrate pneumatic, electronic and direct digital controls.

Requirements: Must have five years of documentable heating, ventilation and air conditioning control trade experience or closely related experience. Apply by April 16, 1984, to Peter Nerzak, Staffing Services.

Salary: \$12.00 per hour, plus liberal benefits. Must be willing to join union within 30 days
Job Number: S133

Position: Maintenance Mechanic, GR23

Department: Buildings & Properties, Geneva, NY

Description: Carry out maintenance repairs, fabricating and renovating buildings and equipment in physical plant, laboratory facilities and Station houses. Assist other trade shop personnel in completion of special projects.

Requirements: H.S. education or equivalent, two year degree in trades desirable. Two to four years experience in structural maintenance work including knowledge and skills in building trades: carpentry, masonry, cabinetry, roofing and plumbing. Ability to read and understand blueprints, sketches and shop drawings. Ability to work independently.

Minimum Starting Salary: \$13,265
Job Number: S121

Position: Photo Assistant, GR20

Department: Architecture, Art and Planning
Description: Provide photo services, including copywork and slide duplication; process film; maintain audio-visual and darkroom equipment; cover circulation desk and oversee student monitors; maintain darkroom chemical supplies; enforce darkroom rules; assist in instruction of photographic and darkroom techniques.

Requirements: Associate's degree or equivalent preferred. Two years of darkroom work experience in a commercial or educational setting, including processing of Ektachrome and black and white slide film. Possess working

knowledge of darkroom techniques, photo chemicals and equipment. Ability to maintain and perform routine repairs on equipment. Good interpersonal skills and ability to instruct others in photography.

Minimum Starting Salary: \$11,180
Job Number: S122

Technical

Applications for Technical positions should include the following information:

- Scientific/technical courses completed;
- Lab techniques and/or equipment (knowledge of)
- Special skills (e.g. knowledge of computer language)

***Position: Technician, GR24**

Department: Equine Drug Testing and Research Program Finger Lakes Racetrack

Description: Assistant Director of a field drug testing laboratory at Finger Lakes Racetrack. Provide analysis of blood and urine samples using thin layer chromatography and gas chromatograph/mass spectrometer. Supervise three technicians in absence of Director.

Requirements: B.S. degree or equivalent in chemistry. A.A.S. degree with experience in gas chromatography/mass spectrophotometry. Experience in isolation, purification and identification of drugs. Thin layer chromatography experience. Experience in operation of gas chromatograph/mass spectrometer desirable.

Minimum Starting Salary: \$14,075
Job Number: T132

***Position: Accelerator Technician, GR20-26**

Department: Laboratory of Nuclear Studies

Description: Under supervision, perform technical work related to the maintenance of an accelerator system. Duties include electrical wiring, power and control wiring, mechanical fabrication including machining and welding. Plumbing, soldering and brazing on a closed, low conductivity water system. Fabricate or modify electrical or mechanical devices working from sketches or general instructions.

Requirements: Associate's degree in mechanical/electrical field. Considerable experience in mechanical field.

Minimum Starting Salary: \$11,180
Job Number: T133

***Position: Technician, GR18**

Department: Ornithology - Islip, NY

Description: Conduct wildlife population surveys; assist in monitoring affects of habitat in species manipulations; compile and structure data from wildlife population surveys and monitoring efforts; assist in training of interns and volunteers; conduct environmental education sessions.

Requirements: Associate's degree or equivalent work experience in natural resource management or related field. Must know basic bird biology and be able to identify birds of Long Island by sight and sound.

Minimum Starting Salary: \$10,000
Job Number: T135

Position: Technician, GR21 (Repost)

Department: Chemistry

Description: Assist in carrying out research projects in biochemistry such as enzymatic preparations, assays, characterization; responsible for laboratory administration such as ordering chemicals, keeping inventory and radiation safety records and supervising student dishwashers.

Requirements: Bachelor's degree or equivalent in chemistry. Some experience working with proteins and enzymes and with biochemical preparations. Good organizational skills.

Minimum Starting Salary: \$11,875
Job Number: T022

Position: Technician, GR18

Department: Equine Drug Testing & Research Program, Vernon Downs Racetrack

Description: Perform routine analysis of horse blood and urine in the field lab at Vernon Downs, Vernon, NY. Saturdays, Sundays and Holidays (five days per week), 1:30 p.m. - 10:00 p.m.

Requirements: Associate's degree or equivalent experience. Experience with thin layer chromatography and general laboratory procedures.

Minimum Starting Salary: \$10,000
Job Number: T121

Position: Research Assistant I

Department: Boyce Thompson Institute - Contact Department Directly (see below)

Description: Assist in research project on leaf development in legumes. Help conduct laboratory and greenhouse experiments to study leaf

growth, source-sink relationships and dry matter partitioning. Study the hormonal control of photosynthate translocation and leaf growth. Investigate the relationship of leaf growth to whole-plant photosynthesis.

Requirements: Bachelor's degree or equivalent in biological sciences with course work in agronomy, biochemistry, chemistry and plant physiology. Experience in radioisotope techniques, statistics and computer programming highly desirable.

Minimum Starting Salary: \$11,000
Contact Department Directly: Dr. D.L. Sirois, Boyce Thompson Institute, 257-2030

Position: Research Equipment Technician, GR24

Department: Biochemistry/CHES

Description: Design specialized x-ray diffraction apparatus; produce mechanical drawings; oversee the production, assembly, testing and use of final parts.

Requirements: Bachelor's degree or equivalent in engineering or physical science. Experience in creative design, metal working and mechanical skills essential. Experience with electronic instrumentation and computer programming desirable.

Minimum Starting Salary: \$14,075
Job Number: T102

Part-time

Position: Office Assistant, GR18

Department: Clinical Sciences

Description: Front desk reception and gathering client history and patient case information; answering and transferring large volume of client and information telephone calls; operating the computer terminal for medical records functions; handling discharge of patients and cashiering. Part-time, regular, 24 hours per week to be arranged.

Requirements: H.S. education or equivalent. Light typing. Knowledge of medical terminology. Ability to work independently. Strong interpersonal and communication skills. Ability to work in a complex, active environment.

Minimum Starting Salary: \$10,000/annual equivalent
Job Number: C121

Position: Secretary, GR18

Department: Patents and Licensing

Description: Share responsibilities for secretarial support to three professionals. Duties include typing correspondence; filing; book-keeping; acting as receptionist; making travel arrangements; processing vouchers. Part-time, regular, 6 hours/day, 5 days/week.

Requirements: H.S. education or equivalent. Heavy typing. Excellent interpersonal and communication (written and oral) skills. Ability to work under pressure. Some experience working in legal office. Knowledge of business equipment (word processor, dictaphone, calculators). Must be able to interact well with the public.

Minimum Starting Salary: \$10,000/annual equivalent
Job Number: C128

Temporary

In addition to regular, part-time opportunities, Temporary (less than six months) positions, both full-time and part-time, are available. Although many openings are clerical, there are often positions offered in other areas. As Temporary openings do not always appear in this listing, please contact Staffing Services for more information.

***Position: Temporary Office Assistant, T-2**
Department: Maintenance & Service Operations

Description: Serve as communication link between campus community and Maintenance and Service Operations for maintenance requests; execute secretarial and clerical duties of Customer Service Center; assist trade shops, Supervisor of Customer Service and dispatch tradespersons and assistants via radio. Full-time, temporary until November, 1984.

Requirements: H.S. education or equivalent. Medium typing. Considerable training or experience in telephone communications and public relations, sales or service preferred.

Minimum Starting Salary: \$4.00/hour
Job Number: C133

***Position: Temporary Laboratory Attendant, T-1**

Department: Veterinary Pathology
Description: Perform routine laboratory

Brief Reports

Election Instructions Are Clarified

The voting instructions which were recently distributed with ballots for Employee Assembly and Employee Trustee candidates have caused some confusion on the part of voters, according to the Office of the Assemblies.

Employees voting in the election should place the assigned number of their first choice in the first box; the assigned number of their second choice in the second box, etc.

Questions should be referred to Marisue Bishop in the Assemblies Office, 256-3715.

Literary Critic Miller To Be Gottschalk Lecturer

"Romantic Rhetoric: The Search for Grounds in Literary Study" is the title of the fifth annual Gottschalk Memorial Lecture to be delivered by literary critic J. Hillis Miller of Yale University. The lecture will be held at 4:30 p.m. Thursday, April 5, in Hollis Cornell Auditorium, Goldwin Smith Hall.

Miller has written many critical works on 19th-century and modern literature. His first book was on Charles Dickens, and his other major works include "The Form of

Victorian Fiction," "The Disappearance of God" and "Poets of Reality."

His most recent book, "Fiction and Repetition," is an attempt to create a dialogue between Deconstruction and traditional literary fiction.

The Gottschalk Memorial Lecture Series at Cornell was established in 1980 by the family, friends, colleagues and students of the late Paul Gottschalk who died in 1977 at the age of 38. He taught in Cornell's Department of English for 12 years, offering courses in Shakespeare, European literature and philosophy.

The lecture series is intended to bring to campus authorities from among the field's of Gottschalk's interests, including music and Russian literature.

Theory Center

Continued from Page 1

ing computer applications for instruction and research," said Kenneth M. King, Vice Provost for Computing. "It will be a primary mechanism for communication and coordination among faculty as we develop a hierarchy of computing resources ranging from microcomputers through supercomputers."

"Simulation science cuts across traditional boundaries in the physical and social

Spring Sports Season Will Start This Week

Three teams will have their respective home openers as the Big Red spring sports season gets underway in full force this week.

The women's lacrosse team is scheduled to entertain two foes on Schoellkopf Field this week. On Saturday, the women laxers will take on Yale at 10 a.m. in its regular season opener, and the Big Red will take to the Schoellkopf turf again at 3:30 p.m. on Monday to entertain cross-town rival Ithaca College. The squad will also play at Cortland on Wednesday.

The Cornell baseball team will play Ithaca College at Hoy Field on Tuesday at 3:30 p.m. Meanwhile, the men's lacrosse

team will play its home opener against Massachusetts Wednesday at 3:30 p.m. on Schoellkopf Field.

The baseball team will play Ithaca College three times this spring. In addition to Tuesday's game, the two schools will meet for a doubleheader on April 10 on South Hill.

The Big Red men's lacrosse team will play the first of seven home games this season when it entertains Massachusetts on Wednesday.

Calendar

Continued from Page 4

P. Olson, Johns Hopkins, 4:30 p.m. Tuesday, April 3, 205 Thurston Hall.

Human Service Studies: "What's Different About the Feminist Movement? Has Social Science Misunderstood Feminism as a Social Movement," Mary Katzenstein, 12:30 p.m. Monday, April 2, N225 Martha Van Rensselaer.

JUGATAE: "Use of an in vitro Radiochemical Assay to Study Factors Regulating Caste Differentiation in Termites," 4 p.m. Monday, April 2, 100 Caldwell Hall.

Materials Science and Engineering: "Density of Mobile Dislocations During Deformation of Single Crystals of KCl," J.C.M. Li, University of Rochester, 4:30 p.m. Thursday, April 5, 140 Bard Hall.

Mechanical and Aerospace Engineering/Operations Research and Industrial Engineering: "ASPEN: A New Generation Process Simulation," Lawrence Evans, MIT, 4:30 p.m. Thursday, April 5, 292 Grumman.

Mechanical and Aerospace Engineering: "Unsteady Vortical Disturbances of Streaming Motions Round Streamlined and Bluff Bodies," Hafiz Atassi, Notre Dame (now at NASA/Lewis), 4:30 p.m. Tuesday, April 3, 282 Grumman.

Microbiology/Biochemistry: "How the Flagellar Rotary Motor Might Work," Howard Berg, California Institute of Technology, 4:30 p.m. Thursday, April 5, 204 Stocking.

Natural Resources: "Integration of Physiological, Nutritional and Behavioral Responses of Deer and the Potential for Damage to Agricultural and Forest Lands," Aaron Moen, 4 p.m. Thursday, April 5, 304 Fernow.

Neurobiology and Behavior: "A Neural Code for Auditory Space," John Middlebrooks, Stanford University, 3:30 p.m. Monday, April 2, Morison Seminar Room, Seeley G. Mudd Hall.

Neurobiology and Behavior: "Reconstitution of the Voltage Sensitive Sodium Channel from Rat Brain," Jane Talvenheimo, 3 p.m. Wednesday, April 4, Morison Seminar Room, Seeley G. Mudd Hall.

Organic/Inorganic Chemistry: "Metallacycles," Robert Bergman, University of California at Berkeley, 4:40 p.m. Monday, April 2, 119 Baker Laboratory.

Physiology: "Colors of the Night: Vision and Bioluminescence in Fireflies," Abner Lal, The Johns Hopkins University, 4:30 p.m. Tuesday, April 3, G-3 Veterinary Research Tower.

Plant Pathology: "Resistance, Epidemiology and Virus Detection in the Potato Leafroll Disease System," Dale Gallenberg, 4:30 p.m. Tuesday, April 3, 404 Plant Science Building.

Plasma Studies: "Probing the Potential Well Responsible for Collective Ion Acceleration," A.E. Blaugrund, Weizmann Institute of Science, Israel, 11:15 a.m. Monday, April 2, 330 Upson Hall.

Plasma Studies: "Conductivity of RF Heated Plasmas," N.J. Fisch, Princeton Plasma Physics Laboratory, 4:30 p.m. Wednesday, April 4, 282 Grumman Hall.

Poultry Biology: "An Adaptation for Parasitism in Birds," Frederick B. Hutt, 4:30 p.m. Thursday, March 29, 300 Rice Hall.

Remote Sensing: "Use of the Dipix Image Analysis System for Data Integration Using Image and Non-Image Data," Stan Aronoff, Dipix Systems, Ltd., 4:30 p.m. Wednesday, April 4, 110 Hollister Hall.

Statistics: Title to be Announced, William R. Fairweather FDA, 3:30 p.m. Wednesday, April 4, 105 ILR Conference Center.

Theoretical and Applied Mechanics: "Families of Linear Systems and Smooth Feedback Control," David Delchamps, 4:30 p.m. Wednesday, April 4, 205 Thurston Hall.

Vegetable Crops: "Vegetable Research on Long Island," Darlene A. Wilcox, 4:30 p.m. Thursday, April 5, 404 Plant Science Building.

Sports

Saturday

Mar. 31, 10 a.m. Schoellkopf. Women's Lacrosse-Yale.

Monday

Apr. 2, 4:45 p.m. Schoellkopf. Women's J.V. Lacrosse-Ithaca College.

Apr. 2, 3:30 p.m. Schoellkopf. Women's Lacrosse-Ithaca College.

Tuesday

Apr. 3, 3:30 p.m. Hoy Field. Men's Baseball-Ithaca College.

Apr. 3, 4 p.m. Schoellkopf. Men's J.V. Lacrosse-Ithaca College.

Wednesday

Apr. 4, 3:30 p.m. Schoellkopf. Men's Lacrosse-Massachusetts.

Friday

Apr. 6, 4 p.m. Cascadilla Courts. Men's Tennis-Pennsylvania.

Saturday

Apr. 7, 1 p.m. Cascadilla Courts. Men's Tennis-Columbia.

Apr. 7, 1 p.m. Hoy Field. Men's Baseball-Pennsylvania (2).

Apr. 7 Inlet Flood Control Channel. Men's Lightweight Crew-Pennsylvania.

Sunday

Apr. 8, 1 p.m. Hoy Field. Men's Baseball-Columbia (2).

Theater

Friday & Saturday

Apr. 6 & 7, 8:15 p.m. *Statler Auditorium. The Savoyards Spring Production, Gilbert and Sullivan's "Utopia Limited." Tickets available at the Statler box office, and may be reserved by calling 256-7263 afternoons.

sciences and engineering," said Vice President for Research and Advanced Studies Robert Barker, a biochemist. "It draws together scientists and engineers whose research has a common basis in mathematical formulation and in the numerical and computational methods by which problems are solved. Collaboration becomes more frequent, and the formulas and methods developed in one field are often useful in others."

Noting that the Center will serve more than 100 faculty members in the theoretical and simulation sciences and engineering, Vice President Barker said, "Cornell has a unique history of successful interdisciplinary ventures, such as the Sub-micron Facility, the Materials Science Center and the Laboratory for Plasma Studies. The new Theory Center is also the outgrowth of interdisciplinary cooperation on large scale computing at Cornell."

Sunday
April 8, 2 p.m. *Statler Auditorium. The Savoyards Spring Production, Gilbert and Sullivan's "Utopia Limited."

Graduate Bulletin

Students wishing to add or drop courses at this time must petition for changes and pay a \$10 late processing fee.

Stress Management for Graduate Students, an EARS Outreach Workshop, will be held on April 4, from 7:00 to 9:00 p.m. For more information and to sign up contact Barbara Garton, 256-3608, in the Dean of Students' Office.

There will be three categories of summer support available from the Graduate School: a limited number of summer fellowships, Graduate Assistantships, and summer tuition awards (providing 80% of per credit charge). All students interested in this support must either have a 1983-84 GAPSFAS on file or the new 1983-84 Financial Need Determination form, available at the Graduate Financial Aid Office, 104 Sage Graduate Center. Supplemental information will be requested for those students eligible for College Work-Study who have incomplete financial aid files. The maximum award for the

summer will be \$1500 for a ten-week period, which will run from May 24, 1984 to August 1, 1984. Additional information will be sent to the fields shortly.

All continuing graduate students are requested to complete Side One of the new 1984-85 blue Financial Need Determination form. Those who expect to apply for financial aid for the 1984-85 academic year must complete both sides. This form may be used in the place of the GAPSFAS and should be submitted directly to the Graduate Financial Aid Office. These forms will be used for determining need for Teaching Assistantships, Guaranteed Student Loans, National Direct Student Loans, and College Work-Study.

June 1: Franzheim Synergy Trust Fellowship in International Affairs Applicants must be enrolled in or have graduated from a program in international affairs at a United States college or university. The applicant must have an excellent command of idiomatic and business English, both spoken and written. Each applicant must have supplemental funds of \$500 per month to draw upon to meet living costs in Houston. This is in addition to the six-month honorarium of \$3600. Please address all correspondence and applications to: The Franzheim Synergy Trust Internship in International Affairs, Southern Regional Office, Institute of International Education, Suite 1-A World Trade Center, 1520 Texas Avenue, Houston, TX 77002, (713) 223-5454.

Job Opportunities

Continued from Page 7

maintenance. Wash glassware; file glass slides and paraffin blocks; make up solutions; do other duties as assigned. Acids and toxic chemicals used daily. Monday - Friday, 3:00 - 7:00 p.m. for six months.

Requirements: H.S. education or equivalent with course work in chemistry preferred.

Minimum Starting Salary: \$3.35/hour
Job Number: T134

Academic

Please contact department directly.

*Position: Extension Associate, CA4 (Assistant Housing Rehabilitation Specialist)

Department: Cooperative Extension, New York City
Job Number: A131

*Position: Assistant Librarian (Icelandic Cataloger)
Department: University Libraries - Olin
Job Number: A132

*Position: Assistant Acquisitions Librarian
Department: University Libraries - Olin
Job Number: A133

Position: Assistant professor (studio courses in photography and drawing)
Department: Art, College of Architecture, Art and Planning
Job Number: A121

Position: Assistant Professor (Grape Entomologist)
Department: NYS Agricultural Experiment Station - Geneva, NY
Job Number: A092