
the university

25th annual International Science and Engineering Fair

The 25th annual International Science and Engineering Fair for pre-college students will be held May 5-11 at Notre Dame's Athletic and Convocation Center.

More than 400 student-scientists from the United States and several foreign countries will display scientific and engineering research projects of their own design at the week-long fair. All participants are winners of regional fairs and are considered to be winners of the international fair. Each receives an array of prizes, including scholarships, cash awards, certificates and silver medals.

Dr. Emil T. Hofman, dean of the Freshman Year of Studies, and Clarence W. Harding, retired public relations and research director of the South Bend Tribune, are heading the local group administering the fair.

Law program in Tokyo

A summer law program at Sophia University in Tokyo, Japan, has been added to the academic year of the Law School at Notre Dame. Present programs also include year-around classes on the campus and at Brunel University of London.

Dr. Edward J. Murphy, professor of law, and Dr. David T. Link, associate dean of the Law School, will join the Sophia law faculty for the classes opening July 7 and closing Aug. 10. Classes will be conducted in English and are open to practicing lawyers as well as law students.

Memorial Library hours

The Memorial Library's inter-session schedule, Saturday, Dec. 22 - Monday, Jan. 14, is as follows:

Open:
Monday through Saturday 8 a.m. - 5 p.m.

Closed:
All Sundays
Monday, Dec. 24
Tuesday, Dec. 25
Monday, Dec. 31
Tuesday, Jan. 1

Necrology

Mr. James Gerity, a Michigan broadcasting executive and a veteran member of the Advisory Council for the College of Business Administration, died Nov. 26 in Toledo, Ohio. Mr. Gerity, 69 has been a member of the Advisory Council since 1948, was its chairman in 1958-1959, and received an honorary

degree last May from Notre Dame.

Mr. I.A. O'Shaughnessy, a University trustee since 1945 and fellow since 1967, died Nov. 21 in Florida at the age of 88. Mr. O'Shaughnessy, the founder of Globe Oil and Refining Company, began his association with Notre Dame in the early 1940's and became the largest individual benefactor in the University's 131 year history.

office of advanced studies

Information Circulars

American Association of
Collegiate Schools of Business
Sears Federal Faculty
Fellow Program

NO. FY74-60

A Federal Faculty Fellow Program conducted by the Association in cooperation with the Civil Service Commission has been made possible by a grant from The Sears-Roebuck Foundation.

This faculty fellow program will provide a mechanism by which one of the single most important private-sector sources of administrative and managerial knowledge and techniques - the faculties of the accredited graduate and undergraduate collegiate schools of business and administration - can be made available on a systematic basis to the departments and agencies in the executive branch of the Federal Government.

Any full-time faculty member in an AACSB accredited school is eligible to be nominated by his dean for consideration as a faculty fellow. The fellowship time period ranges from three and one-half to twelve months beginning in the summer.

For further information write to:

Mr. Cyril C. Ling
Executive Vice President
American Association of Collegiate
Schools of Business
Washington, D.C. 20036

National Science Foundation
NATO Senior Fellowships in
Science

NO. FY74-61

Objective

The primary objective of the Nato Senior Fellowships is to enable universities to send senior staff members to study new scientific techniques and developments at research and educational institutions in other NATO nations, or in countries cooperating with NATO. The National Science Foundation administers the program in cooperation with the Department of State, and will award about 30 fellowships. Awards will be made in the mathematical, physical, medical, biological, engineering, and social sciences, and in the history and philosophy of science. Interdisciplinary fields comprised of overlapping fields among two or more sciences are also included. Fellowships are not awarded for support in clinical, education or business areas, nor in history or social work. Tenures may range from one month to a maximum of three months.

Eligibility

An institution is expected to nominate only an individual who 1. has full professional standing in the field with which his fellowship would be concerned, 2. has at least five year's experience in research, teaching or other relevant professional work, and 3. has the linguistic abilities necessary for profitable discussion with colleagues in the country or countries he proposes to visit.

Activities

These fellowships are intended to provide an opportunity to observe and study new scientific techniques and developments. Applicants must present a plan of proposed activities, and justify the proposed plan by explaining fully how these activities are expected to improve the educational and/or research potential of the nominating institution at the graduate or advanced level. Tenure must be explicitly justified, and the nominating institution will be required to state the expected benefits to the institution. The fellowships are not intended for support of research, nor a program of sabbatical study, nor to help individuals pursue courses of academic study. Neither are they designed to support the preparation of materials for publication, writing of textbooks, nor attendance at international scientific or professional meetings.

Tenure

Requested tenure, including time for travel, should range from one month to a maximum of three months. Fellows may enter on their tenures any time within one year after an award is made.

A NATO Senior Fellow in Science will receive for each day of tenure a subsistence allowance of \$20 per day. A travel allowance, not to exceed the cost of air-tourist transportation via the shortest route, will normally be provided for the purpose of reaching the first fellowship institution to start the tenure period, and to return to the home institution in the United States. Maximum travel time of up to four days for the round trip may be included as part of tenure for subsistence allowance purposes. No additional allowances are available.

Location of Work

Fellows will be expected to carry on their scientific activities at appropriate non-profit scientific institutions in countries that are members of NATO, other than the United States. These include: Belgium, Canada, Denmark, France, Federal Republic of Germany, Greece, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Turkey, and the United Kingdom. Consideration will be given to applicants who propose to conduct their fellowship in other countries that cooperate with NATO if exceptional and compelling reasons warrant it.

Application Materials

Applications may be obtained from between October and January from:

The Division of Higher Education in
Science
National Science Foundation
Washington, D.C. 20550

Completed materials for the 1973-1974 competition must be received by the Foundation not later than January 31, 1974. Applicants will be notified of their outcome within three to five months of the date of submission.

National Science Foundation Research Applied to National Needs, Division of Environmental Systems and Resources

NO. FY74-62

The Division of Environmental Systems and Resources is one of the organizational units administering the program of Research Applied to National Needs (RANN) in the Research Applications Directorate.

The purpose of the programs of this Division is to support research to develop improved understanding of environmental issues and the impact of human activity on the environment, and for improving the prospect of reconciling economic development with improved environmental quality in the United States. It is expected that the results of such work will contribute to increased effectiveness of environmental policies and will provide workable strategies and alternatives for management and utilization of our natural resources within the context of our overall societal goals.

Major Program Areas are:

- Regional Environmental Systems
- Environmental Aspects of Trace Contaminants
- Weather Modification

Research sponsored under this Division's programs must be directed toward urgent environmental programs of considerable national or regional significance. The research results obtained under objectives of these programs will be made available for utilization by appropriate user agencies and decision makers including the electorate. Proposals should address themselves to: (1) the identification of particular resources affected by specific problems and the interrelationships among these resources; (2) the extent and accuracy of the current data base; (3) the present and potential capacity of the ecosystem for sustained production of regional resources; and (4) the development of environmental management alternatives and evaluation mechanisms.

Proposals may include research which seeks to provide an improved understanding of attitudes and value judgements relative to environmental quality, including the willingness to accept degradation, or alternatively, to pay for higher environmental quality. The role of economic and legal mechanisms in environmental control may also be examined in order to make available to decision makers a full range of management options. In addition, institutional arrangements and public policies may be considered as an important component of projects concerned with the examination of environmental problems related to resource development.

It is especially valuable to develop research proposals in cooperation with a potential user of the results of the research. While it is difficult to anticipate all of the details of technological transfer to various decision makers, it is a basic requirement of this Division that proposals evidence that an appropriate user relationship has been established prior to submission of a formal proposal.

Environmental problem areas presently excluded from support under ESR include problems of the open ocean, the upper atmosphere, the occupational environment, applied medicine and drugs, ionizing radiation, and issues unique to countries other than the United States.

Unsolicited proposals in the program areas may be submitted at any time throughout the year.

For further information on major program areas, contact the Office of Advanced Studies, Division of Research and Sponsored Programs, Extension 7378.

National Science Foundation Travel Grants for North Atlantic Treaty Organization Advanced Study Institutes

NO. FY74-63

Objective

The National Science Foundation plans to award international travel grants to about 90 young U.S. scientists to attend some 40 NATO Advanced Study Institutes in Europe during the summer of 1974. The Institutes provide advanced instruction on specific topics in the physical, life, and social sciences, and in engineering and mathematics. They normally last from two to three weeks and are conducted in an atmosphere that will promote international scientific fellowship and cooperation.

Eligibility

Junior faculty and advanced graduate and postdoctoral students who are citizens of the U.S. are eligible.

Application

General information, and a list of NATO Institutes will be available in February, 1974, from:

NATO Travel Grants
Fellowship and Traineeship Section
Division of Higher Education in Science
National Science Foundation
Washington, D.C. 20550

Indiana Heart Association, Inc. 1974-1975 Affiliate-National Research Fellowship Program

NO. FY74-64

Objective

The program is intended to provide support for an additional fellow at the affiliate level, rather than to partially offset costs of an existing program.

Qualification of Candidates

Applicants must hold an M.D., Ph.D., or equivalent domestic or foreign degree. Awards are open to individuals who require additional research training and who are not yet clearly qualified to conduct independent research. Support will be made available for such disciplines as physiology, biochemistry, pathology, as well as for epidemiological and clinical investigations which bear on cardiovascular problems, including renal disease and stroke. It is the responsibility of the applicant to make all necessary arrangements for conducting the research. The sponsor will be responsible for organizing a planned research and research training program, including the direction of a fellow's training and for ensuring that adequate research facilities are available.

The application (Standard Research Fellowship application form R12B - 1973) should contain sufficient information about the background of the fellow and the proposed research plan.

Review Procedures

The local Heart Association is responsible for primary merit review. Additional review will be conducted by regional research review committees for affiliates, and by the Committee on Regional-National Research. Final review and recommendations will be made by the Committee on Regional-National Research at its Spring, 1974 meeting.

Affiliates will be notified of action no later than mid-April.

Duration

Awards are made for a maximum of twelve months. Renewals are the sole responsibility of the local Heart Association.

Location of Work

In general, research training can be approved in accredited medical and dental schools, veterinary schools, schools of public health, graduate facilities of universities and colleges, and accredited hospitals and laboratories, and other non-profit research institutions.

Stipends

Stipend levels and dependency allowances (if any) will be determined by each affiliate and should be comparable to those paid for equivalent positions in the candidate's institution. The current total for an award is \$12,000 - \$6,000 from the American Heart Association and \$6,000 from the Indiana Heart Association.

Application

Applications are due in the office of the Indiana Heart Association, Inc., Indianapolis, January 15, 1974.

For further information, contact the office of Research and Sponsored Programs, Extension 7378.

Graduate School

American Association of Collegiate Schools of Business Fellowships and Awards

NO. FY74-GS16

Objective

The American Association of Collegiate Schools of Business Administration was established to financially assist worthy and qualified students to devote their full time toward the completion of a dissertation leading to a doctorate in business administration.

Eligibility

To be eligible the applicant must have graduate standing in a school accredited by AACSB and must be nominated by the dean of his school. The recipient shall be pursuing a dissertation which can reasonably be expected to be completed within one year following selection.

Applications

For applications and further information write to:

Mr. Cyril C. Ling
Executive Vice President
American Association of Collegiate Schools
of Business
Washington, D.C. 20036

Current Publications And Other Scholarly Works

ENGINEERING

Aerospace and Mechanical Engineering

Ariman, Teoman

K.S. Rio, M.N. Bapu Rao, and T. Ariman. 1973. Thermal Stresses in elastic plates with elliptic holes. Winter Annual Meeting of the American Society of Mechanical Engineers in Detroit, Michigan, November 11-15. Paper No. 73-WA/DE-3. 6 pp.

T. Ariman, M.A. Turk, and N.D. Sylvester. 1973. On steady and pulsatile flow of blood. Winter Annual Meeting of the American Society of Mechanical Engineers in Detroit, Michigan, November 11-15. Paper No. 73-WA/APM-7. 7 pp.

Brach, Raymond M.

R.M. Brach. 1973. Technical note on optional design of vibrating structures. Journal of Optimization Theory and Application 11(6):662-667.

SCIENCE

Chemistry

Fehlner, Thomas P.

L.C. Ardini and T.P. Fehlner. 1973. Relative abundances of doubly charged ions in the mass spectra of boron hydrides and some derivatives. International Journal of Mass Spectrometry and Ion Physics 10:489-492.

Martinez-Carrion, Marino

M.A. Rattery, J. Schmidt, M. Martinez-Carrion, T. Moody, R. Vandlen, and J. Duguid. 1973. Biochemical Studies on Torpedo Californica acetylcholine receptors. Journal of Supramolecular Structure 360-367.

Pasto, Daniel J.

D.J. Pasto and P. Timony. 1973. Transfer reactions involving boron. XXVI. A kinetic study of the Lewis acid catalyzed dealkoxyorganoboranes. Journal of Organometallic Chemistry 60:19-29.

Ross, Alberta B.

*M. Anbar, M. Bambenck, and A.B. Ross. 1973. Selected specific rates of reactions of transients from water in aqueous solution. 1. Hydrated electron. U.S. Department

of Commerce. Publication NSRDS - NBS
43. 67 pp.

*Under the Radiation Laboratory

Mathematics

Matsushima, Yogo

- Y. Matsushima and W. Stoll. 1973. Ample vector bundles on compact complex spaces. Rice University Studies 59(2):71-107.

Microbiology

Pleasants, Julian R.

- *J.R. Pleasants. 1973. Germfree animals and their significance. Endeavour 32(117):112-116.

Pollard, Morris

- *M. Pollard and N. Sharon. 1973. Congenial LCM virus infection in "germ-free" Haas strain mice. Pages 121-127 in, Lymphocytic Choriomeningitis Virus and Other Arenaviruses, F. Lehmann-Grude, editor. Springer-Verlag, Berlin.
*M. Pollard, 1973. Spontaneous prostrate adenocarcinomas in aged germfree Wistar rats. Journal of the National Cancer Institute 51(4):1235-1241.

*Under the Lobund Laboratory

Physics

Brown, Cornelius P.

- C.P. Brown, J.D. Gross, and A.A. Rollefson. 1973. States of ^{25}Al up to 7.8 MeV Excitation and the Mass of ^{25}Al . Physical Review C8:1805.

Hiddleston, H. Rodney

- J.A. Aymer, H.R. Hiddleston, E.D. Berners, and A.A. Rollefson. 1973. Spin assignments in ^{61}Ni from the $^{60}\text{Ni}(d,p)^{61}\text{Ni}$ reaction. Nuclear Physics A213:125.

ARTS AND LETTERS HUMANISTIC AND SOCIAL STUDIES

Economics

Masters, Stanley H.

- S.H. Masters. 1973. Housing segregation and black-white income differentials. Pages 60-79 in, D.J. Dugan and W.H. Leahy, eds. Perspectives on Poverty. Praeger Press, New York.

Government and International Studies

Walshe, A. Peter

- A.P. Walshe. 1973. Rhodesia: Britain's last chance. Third World Oct.:6-9.

History

Chroust, Anton-Hermann

- A.-H. Chroust. 1973. The 'Great Deluge' in Aristotle's On Philosophy. L'Antiquite Classique (Belgium) 42(1):113-122

Philosophy

Brennan, Scheilah M.

- S.H. Brennan. 1973. Sensing and the sensitive mean in Aristotle. The New Scholasticism 47(3):279-310.

Psychology

Dawson, William E.

- N. Martinez and W.E. Dawson. 1973. Ranking of apparent area for different shapes of equal area. Perceptual and Motor Skills 37:763-770.

BUSINESS ADMINISTRATION

Accountancy

Powell, Ray M.

- R.M. Powell. 1973. Program planning manual for American Accounting Association Regional Meetings, American Accounting Association, Sarasota, Florida. 110 pp.

Williamson, Robert W.

- R.W. Williamson. 1973. No simple solution in letters to the editor. Management Accounting 54(10):7 and 27.

Wittenbach, James L.

- J.L. Wittenbach. 1973. Using present value analysis to explain inflation offset provided by accelerated depreciation. Taxes - The Tax Magazine 51(10):610-612.

- J.L. Wittenbach. 1973. Accelerated depreciation and capital budgeting decisions: A survey analysis. John Carroll University Business Bulletin 13(2):10-16.

Finance and Business Economics

Goulet, Waldemar M.

- W.M. Goulet. 1973. Managerial expectations in the listing decision. Pages 187-199 in, Proceedings of the South-Western Finance Association.

Marketing Management

Mayo, Edward

- E. Mayo. 1973. Tourism and the American Indian Reservation National Advertising Company, Bedford Park, Illinois. 42 pp.

Weber, John

- J. Weber. 1973. Economics journals: Policies, trends, and a warning: Reply. Southern Economic Journal 39(2):148-151.

LIBRARY STUDIES

Sesplaukis, Alfonsas

- A. Sesplaukis. 1973. The Martynas Mazuydas Catechism of 1547. Lituanus, the Lithuanian Quarterly 19(3):5-19.

documentation

Indiana Bell Telephone Rate Increase

The Indiana Bell Telephone Company has been granted a rate increase on line charges by the Public Services Commission, effective Oct. 6, 1973. As a result, the Centrex line charge for all administrative phones will increase from \$7.50 per month to \$9 per month beginning with the December 1973 charges to departmental budgets. There is no change in the monthly rates for special equipment.

Since this increase will cause some departmental line charges to exceed the budget provision for the current year, it is suggested that toll calls be controlled as much as possible in order to make up for some of this unprovided expense.

All budget administrators should take note of this increase in telephone line charges when preparing their 1974-75 budget estimates.

Brother Kieran Ryan, C.S.C.

The University of Notre Dame College of Engineering Honor Awards Plan

EDITOR'S NOTE: The deadline for faculty nominations has been extended to Dec. 18.

1. The name of the award shall be the "University of Notre Dame College of Engineering Honor Award."
2. The award shall be engraved with the name of the recipient and the year in which the award is granted.
3. The principal time of presenting the awards shall be during the spring semester of each academic year. The ceremony shall include a short address by the Dean of Engineering, then for each medalist in turn the reading of the citation and the presentation of the medal by the Dean followed by the response of the recipient.
4. Individual awards shall be available for presentation on special occasions at other times and places.
5. The presentation of about five awards per year may be considered.
5. Individuals and technical organizations shall be eligible to receive these awards. Individuals nominated should normally have some special interest or association with the University of Notre Dame. Special importance will be placed on those activities that have demonstrated the use of engineering knowledge in the service of mankind.

7. Nominations for awards shall be received and reviewed by an anonymous awards committee appointed by the Dean from members of the College of Engineering Advisory Council and previous recipients of this honor award. The Dean shall serve as chairman. The committee shall present nominations to the Engineering College Council for their recommendations. The nominations and recommendations shall then be submitted to the President for final approval. The Dean shall contact the approved nominees and determine their availability to receive the award and participate in the ceremony.
8. The award shall be given to a person or organization for significant contributions to the advancement of engineering or architecture or for meritorious achievement in other fields by an engineer or architect.

Miss Marie Lawrence
Memorial Library
Social Sciences
Notre Dame, Ind. 46556

notre dame report

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