

'77-'78

notre dame report

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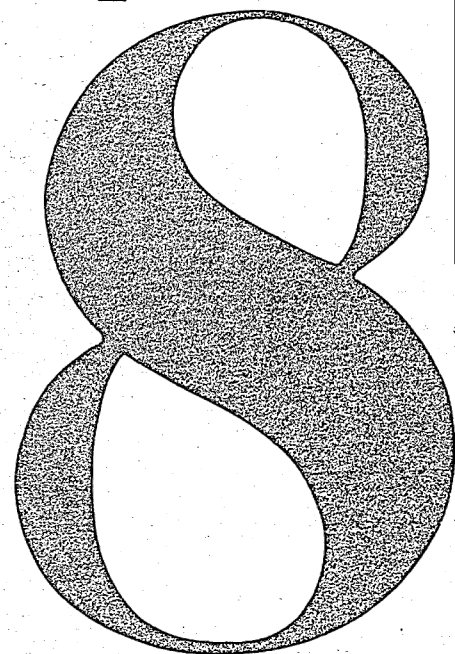
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the university

Snite Museum for Art

Architects at Notre Dame are completing blueprints for the \$2 million Snite Museum of Art, the major expansion of the present gallery in O'Shaughnessy Hall to be completed during the spring of 1979. Containing more than 40,000 square feet of exhibition space, three times as much as the present gallery, the new addition will include a sunken garden, a two-story atrium, a cloistered courtyard and a 350-seat auditorium to accommodate small plays and concerts, poetry recitals, lectures and demonstrations in art and art history. Also planned is the "Notre Dame Court," an area devoted exclusively to the many religious art works owned by the University. Specific display areas planned will be reserved for Ancient and Medieval art, Renaissance through the Baroque Period, 18th and 19th century and the Modern World. The Ivan Mestrovic Sculpture Studio will also be renovated.

The addition to the Art Gallery will extend the building to Dorr Road matching the current extension of the adjacent engineering building. It will provide a more visible public entrance, as well as research, teaching and study facilities; new classrooms; seminar rooms for the study of graphics; ceramics and photography, and a gallery library.

New Trustee

Catherine B. Cleary, chairman of the board and chief executive officer of the First Wisconsin Trust Company in Milwaukee, has been elected as the 41st member of the Notre Dame Board of Trustees.

A 1937 graduate of the University of Chicago who received her law degree in 1943 from the University of Wisconsin, Cleary practiced law for four years before joining the First Wisconsin Trust Company in 1947. She was made a vice president in 1954, president in 1969, president and chief executive officer in 1970 and assumed her current position in 1976. She is a director of the American Telephone and Telegraph Company; the General Motors Corporation; Kraft, Inc.; the Kohler Co. and Northwestern Mutual Life Insurance Company. Cleary has been the recipient of 10 honorary degrees, including an honorary doctorate in law from Notre Dame received last May.

Memorial Library Hours Spring Semester

Schedule when classes are in session (Tuesday, Jan. 17-Thursday, March 16; Monday, March 27-Sunday, May 7)

Monday - Saturday	8 a.m. - 11:45 p.m.
Sunday	1 p.m. - 11:45 p.m.

Schedule during final examination period (Monday, May 8 - Monday, May 15)

Monday - Saturday	8 a.m. - 12:45 a.m.
Sunday	1 p.m. - 12:45 a.m.

Schedule when classes are not in session (Friday, March 17 - Sunday, March 26; Tuesday, May 16 - Sunday, June 18)

1st and 2nd floors	
Monday - Saturday	8 a.m. - 5 p.m.
Sunday	Closed

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4th through 13th floors (Tower)
Monday - Saturday 8 a.m. - 10 p.m.
Sunday 1 p.m. - 10 p.m.

Memorial Library Building will be closed:

March 24 (Good Friday)
March 26 (Easter Sunday)
May 29 (Memorial Day)



Campaign for ND Gifts

Talented but needy Notre Dame students will benefit from a series of scholarships established by a gift from Mr. and Mrs. Eugene D. Fanning of Winnetka, Ill. Fanning, a 1953 Notre Dame graduate, is president of Fanning Cadillac, Inc., of Chicago and is an owner-investor in the Chicago White Sox. Since 1976 he has served on Notre Dame's Library Advisory Council. He also serves on the board of the Chicago Catholic Charities and is chairman of the National Cadillac Dealer Group.

This year 53 per cent of Notre Dame students are receiving some form of financial aid. About one out of seven undergraduates receive aid from scholarship funds administered by the University, most underwritten by endowment. The Campaign for Notre Dame, the University's five-year development effort, is seeking \$12 million to underwrite student financial assistance.

Historic Notre Dame

A large section of the Notre Dame campus will become a historic district if officials in Washington approve a current application submitted to the Department of Interior. State authorization for the designation has been given. Assistant Archivist Wendy Clauson Schlereth prepared the application, which has been approved by officials of the Department of Natural Resources in Indianapolis and has been forwarded to the National Register of Historic Places in Washington. "The principal reason we are applying for this status," Schlereth said, "is to gain national recognition for our historic structures and to draw attention to our architectural heritage. It may also allow us to apply for federal funds if any exterior restorations are necessary."

Thirty of the more than 90 major buildings on the campus today for the proposed district include: the Administration Building; Old College; Cushing Hall of Engineering; St. Edward's Hall (1882); Washington Hall (1881); LaFortune Student Center (1883); Sorin, Corby, Walsh and Badin Halls; Sacred Heart Church; Presbytery; Earth Sciences Building; Freshman Year Building; Brownson Hall; Howard, Morrissey and Lyons Halls; South Dining Hall; Law School; Hurley College of Business Administration; Rockne Memorial, and Dillon and Alumni Halls.

Special Notice

Effective Jan. 9 it will be necessary to dial "41" plus the 4-digit number to make calls to Saint Mary's College through the University Centrex system. This change is a result of adding additional telephone lines in the 4000 number group within the University. Failure to dial "41" will result in reaching a 4000 number within the University rather than the desired station at Saint Mary's College.

'Street Law' Renewed

The Notre Dame "Street Law" program that sends law students into area high school classrooms has been renewed for a second year with a \$19,000 grant from Lilly Endowment, Inc., of Indianapolis.

Advanced students conduct courses in such areas as criminal, consumer, family, housing, individual rights and environmental law. The goal is to develop a more positive student attitude as citizens in their dealings with law, enforcement officers, lawyers and the judicial system, and to improve the students' analytical skills and critical thinking.

Center for Constitutional Studies Announced

A new Center for Constitutional Studies providing basic legal research on national issues affecting independent institutions of higher education has been established within Notre Dame's Law School. Director Philip R. Moots, concurrent associate professor of law, said the center will provide legal scholarship on basic constitutional issues, and its conclusions would be shared with legal counsel for independent institutions, as well as with the religious bodies which sponsor many of them. The center's professional staff may also write and file friends-of-the-court briefs and otherwise assist local counsel in selected cases, as well as provide memoranda, expert advice and opinions to legislators and help draft testimony for legislative or administrative hearings.

The advisory board, chaired by Rev. James T. Burtchaell, C.S.C., professor of theology, will set policy and select issues on which the center's staff will concentrate its legal research. The center will also set up a professional panel of lawyers practicing in its area of interest to provide a forum for sharing advice and critiquing the work of its professional staff.

faculty notes

Appointments

Three additions to the Department of Development staff at Notre Dame have been announced by Thomas J. Suddes, director of development. Daniel W. O'Brien was named a regional director of development with a particular responsibility in the area of corporate giving. Paul S. Holowczak, former assistant director of the Notre Dame alumni association, will assist Suddes in the planning of city functions connected with the nationwide \$130 million "Campaign for Notre Dame" launched last April, and Kerry M. Temple will fill a newly-created position of development department writer.

Wendy Clauson Schlereth, a member of the Notre Dame Archives staff since 1973, has been named University archivist effective Sept. 1, 1978, it was announced by University President Rev. Theodore M. Hesburgh, C.S.C. Schlereth will succeed Rev. Thomas E. Blantz, C.S.C., associate professor of history and University archivist since 1969, who announced his intention to return to full-time teaching last March.

Honors

Robert Betchov, professor of aerospace and mechanical engineering, has been advanced to the status of Fellow in the American Physical Society effective Nov. 20.

Vincent P. DeSantis, professor of history, has been named one of the coordinators for the Regional History Day for the Third Congressional District of Indiana scheduled for April 1, 1978, on "Energy: Its Impact on History."

William Eagan, associate professor of management, has been appointed a member of the National Council for the Social Studies Advisory Committee on Professional Ethics.

Evelyn Eaton Whitehead, assistant professor of theology, has been appointed to the Research Development Committee of the Institute of Pastoral Studies of Loyola University in Chicago.

Activities

Officials of the Material Handling Equipment Distributors Association (MHEDA) held a Young Executive Forum at Notre Dame Dec. 7-9. Speakers, who also participated in conferences and workshops, included: Salvatore J. Bella, Jones professor of management, "Contemporary Techniques for More Effective Communication;" John J. Malone, professor of marketing, "Keys to Successful Operations Management;" D. Chris Anderson, professor of psychology, "The Skills of Behavior Management;" C. Joseph Seguin, chairman and associate professor of management, "How to Maximize on Your Own Leadership Potential;" Kenneth W. Milani, associate professor of accountancy, "Creative Budgeting Techniques," and William P. Sexton, associate professor of management, "Developing Personal Confidence and Competence as an Executive."

Joan Aldous, Kenan professor of sociology and anthropology, was a participant in the Third Annual J.C. Penney-Center for the Family Forum which was written up in the November 1977 issue of the Journal of Home Economics. She is also serving as chairperson of the Nominations Committee for the National Council on Family Relations.

William E. Biles, associate professor of aerospace and mechanical engineering, presented a paper entitled "Strategies for Optimization of Multiple-Response Simulation Models" at the 1977 Winter Simulation Conference at the National Bureau of Standards, Gaithersburg, Md., Dec. 5-7.

William Eagan, associate professor of management, was a member of a panel discussing "Planned Parenthood Controversy and Local Decision Making" at the annual meeting of the National Council for the Social Studies Nov. 26 in Cincinnati.

Sean V. Golden, assistant professor of English, addressed the Notre Dame Club of Chicago on Dec. 11 on "The Influence of the American-Irish on the University of Notre Dame". He also moderated a panel discussion on Contemporary Irish Writing at a symposium on Contemporary Irish Literature sponsored by the English Department at Notre Dame on Nov. 28. Seamus Deane, visiting professor of English, was one of the panel discussants.

Eugene W. Henry, professor of electrical engineering, presented a paper entitled "A Microprocessor-Controlled Laboratory Data Acquisition System," co-authored with James W. Kaiser, associate professional specialist in physics, at the Midwestern Region Simulation Council meeting on Data Acquisition and Process Control, Nov. 21 in Southfield, Mich.

Edward W. Jerger, associate dean of the College of Engineering, was an invited principal lecturer for a workshop on the engineering methodology of "Building Firesafety Evaluation" held Dec. 1-2 in Las Cruces, New Mexico, sponsored by the Building Materials Research and Testing Institute, College of Engineering, New Mexico State University.

V. Paul Kenney, professor of physics, presented a colloquium talk, "Correlated Multihadron Production in π^+p Interactions at Fermilab Energies," to the Physics Department of the University of Tennessee on Oct. 25.

Lawrence C. Marsh, assistant professor of economics, with Sanjay S. Modak, presented a paper entitled, "On Simultaneously Testing Multiple Inequality Constraints" at the 41st session of the International Statistical Institute held in New Delhi, India from Dec. 5-15.

James Pattillo, Peat, Marwick, Mitchell professor of accountancy, presented a paper to the University of Alabama's Accounting Research Convocation entitled "The Role of Applied Research in Accounting" on Nov. 20-21 in Tuscaloosa, Ala.

Wendy Clauson Schlereth, assistant archivist, presented a paper on "Documenting Secular History in Religious Archives" at the annual meeting of the Society of American Archivists held at Salt Lake City, Oct. 4-7.

Robert H. Schuler, director of the Radiation Laboratory and professor of chemistry, presented a paper entitled "Optical Spectra of Radical Intermediates in Radiation Chemistry" on Dec. 8 at the IX Chemical Conference of the American Chemical Society, Puerto Rico Section, held at San Juan, Puerto Rico.

James E. Stewart, visiting professor of English, presented a talk on "Language and Commitment: The Idea of Teleolinguistics" on Dec. 7 in the Rare Book Room of the Memorial Library.

Anthony M. Trozzolo, Huisking professor of chemistry, presented a talk entitled "Strategies for Change Through ACS Channels" on Oct. 21 at the American Chemical Society's Tenth Biennial Education Conference "Safety and Health in the Academic Laboratory" in Chicago.

Penny Van Esterik, assistant professor of sociology and anthropology, presented a paper on "Ban Chiang: Archaeological Past and Entrepreneurial Future," at the Canadian Council for Southeast Asian Studies, Nov. 4-5 at McMaster University, Hamilton, Ontario.

Robert Vecchio, assistant professor of management, gave a talk entitled "Leadership Research: State of the Art" as part of the Windmoor Seminar Series on Nov. 10.

R. Brian Walsh, director of the Computing Center, has been elected to serve a three-year term on the National Board of Directors of the College and University Systems Exchange (CAUSE), a non-profit corporation that fosters the Administrative Information System exchange.

Bruce Williams, assistant professor of mathematics, gave a talk for the Mathematical Colloquium at Northwestern University on Nov. 21 entitled "Localized Surgery."

K.T. Yang, chairman and professor of aerospace and mechanical engineering, chaired a session entitled "Heat Transfer in Turbulent Flows" at the 1977 Winter Annual Meeting of the American Society of Mechanical Engineers held in Atlanta, Ga., Nov. 27-29.

office of advanced studies

Information Circulars

National Science Foundation Information Dissemination for Science Education

No. FY78-110

The National Science Foundation, through the Division of Science Education Resources Improvement, supports programs and activities aimed at strengthening the capabilities of elementary and secondary schools, as well as colleges and universities, for the improvement of science and mathematics education.

The primary purpose of the Information Dissemination for Science Education Program is to encourage improvements in elementary and secondary school science, mathematics and social science by providing opportunities for school-system representatives and others concerned with education at the pre-college level to learn about new and alternative instructional materials, classroom practices and recent science education research findings. The dissemination program activities are aimed at assisting state and local authorities to acquire information about materials and practices necessary to meet locally-determined needs in science education through such mechanisms as conferences, professional meetings and computerized exchanges. The target audiences for these activities are education decision-makers such as principals, supervisors, teacher-leaders, school board members and representatives of parent groups.

The Information Dissemination program is concerned with bridging the gap which exists between educational product developers and users and is directed toward science education at the elementary and secondary school levels. The last decade has witnessed a proliferation in the development of new materials, practices and technologies available for use in elementary and secondary schools. The rapid pace at which these materials have been produced has made it difficult for those concerned with science education to carefully examine and evaluate alternatives. The Information Dissemination program provides opportunities for educational decisionmakers such as administrators, subject matter specialists, teacher-leaders, school board

members and other policymakers to make more informed choices. The scope of information dissemination activities may include curriculum and instructional materials, research findings, concepts, processes and educational technologies pertinent to instruction in the sciences including social science and mathematics at the pre-college level. Activities will develop an awareness and demonstrate alternatives; they will also provide for discussion of design features, intended users, expected costs, advantages and disadvantages and other relevant information.

Projects are expected to be local or regional rather than having a national orientation. In addition to making projects pertinent to local needs, a narrow geographic focus is more efficient and will encourage continuing communication between participants and the project staff.

The closing date is February 15, 1978.

Department of Transportation Faculty Fellowship Opportunities in Transportation Systems Research

No. FY78-111

The Faculty Fellowship Program at the U.S. Department of Transportation Systems Center in Cambridge, Massachusetts, is a multi-disciplinary program to offer senior faculty members an active research environment and working experience that is professionally rewarding to them and of benefit to the nation's transportation community.

The fellowships are intended to provide senior members of the academic community with an opportunity to work on specific projects in the transportation field. The fellowships are located at the Transportation Systems Center in Cambridge, Massachusetts, and are typically of 12 months duration. Normally the appointment to this program will run from July 1 to June 30; however, minor adjustments to this schedule are negotiable.

The fellowships are implemented under the auspices of Title IV of the Intergovernmental Personnel Act.

Since the program is intended as an opportunity for leading academicians in transportation to pursue advanced and innovative research in transportation, as well as benefit the Transportation Systems Center in its mission, the choices of subject areas are limited to those areas where a direct interaction and contribution are expected. The center has over 100 projects on-going at any one time.

Implicit in the projects is the inclusion of safety, environmental and energy considerations. The Center brings multi-disciplinary teams together to work on these project areas with expertise in such areas as transportation systems analyses, engineering and science, human factors, psychology, sociology, economics, computer sciences, operations research, mathematics, business and management. The work frequently focuses on the solution to a problem in a single mode of transportation: air, rail (passenger and freight), highway (automotive and truck), urban transit, marine and pipeline.

Applications should be received by January 15, 1978.

Center for Advanced Study in the Behavioral Sciences Stanford, California

No. FY78-112

The purpose of the Summer Institute for Humanists, Behavioral Scientists, Biological Scientists, Biological Scientists on Biological Differences and Social Equality is intended to increase the participant's knowledge of a topic that is related to a wide variety of teaching and scholarly activities, and thus to enhance the quality of teaching and research. Participants will be exposed to seminars, individual discussion with the Directors, informal interaction with other Institute participants from a variety of disciplines and the opportunity for private study and writing.

Topic:

Participants will investigate the relative malleability of biological and environmental determinants of inequality, the degree to which biological-genetic and environmental influences are separable, and the conceptual and empirical difficulties involved in attributing degrees of inequality to environmental or genetic influence.

Eligibility:

Minority scholars, young scholars (under 35) with the doctoral degree. The fields to be included range from biological science through all of the behavioral sciences to the humanities -- anthropology, biology, economics, education, history, law, linguistics, literature, philosophy, political science, psychology and sociology.

Stipend:
\$2,000 plus allowance of \$500 for travel and housing.

Tenure:
July 5 through August 15, 1978.

Deadline:
February 1, 1978.

Application forms can be obtained by writing:

Summer Institute
Center for Advanced Study
in the Behavioral Sciences
202 Junipero Serra Blvd.
Stanford, California 94305

The American Numismatic Society Graduate Fellowships — 1978-79 and Grants for Summer Study in Numismatics — 1978

No. FY78-113

The American Numismatic Society will award a Fellowship of \$3,500 to a graduate student in the fields of the humanities or the social sciences.

The Fellowship will be awarded to a graduate student --

1. Who will have completed the general examinations (or the equivalent) for the doctorate.
2. Who will be writing a dissertation during the academic year of 1978-79 on a topic in which the use of numismatics plays a significant part.
3. Who will have attended one of the American Numismatic Society's Summer Seminars prior to the time of application.

Grants for Summer Study in Numismatics

The Society offers ten grants-in-aid for study at its twenty-sixth Seminar in Numismatics to be held at its museum, June 13 through August 12, 1978. These grants will be available to students who will have completed at least one year's graduate study in Classics, Archaeology, History, Art History, Economic History or other related disciplines. Areas of study may include the ancient Mediterranean, the ancient Near East, mediaeval Europe, Latin America, the Islamic world, South Asia or East Asia. Applications will be accepted also from junior university or college instructors with a degree in one of these fields. Each grant will carry a stipend of \$750.

Deadline:
Deadline for both programs is March 1, 1978.

For further information and application materials write:

The American Numismatic Society
Broadway at 156th Street
New York, New York 10032

Current Publications And Other Scholarly Works

ARTS AND LETTERS HUMANISTIC AND SOCIAL STUDIES

Economics

- Kim, Kwan S.
Y.C. Chang and K.S. Kim. 1976. Segmented regression analysis in dealing with cross-section, qualitative data in application to consumer attitudes toward gasoline conservation measures. Pages 242-244 in, Proceedings of American Statistical Association.
- Rakowski, James J.
J.J. Rakowski. 1977. Destabilizing speculation, distinguishing the speculators from the non-speculators. Southern Economic Journal 44(2):368-373.

English

- Matthias, John E.
J.E. Matthias. 1977. Berryman the critic. The New Review 4(38):51-55.
J.E. Matthias. 1977. From The Lermontov Poems. The New Review 3(36):28-30.
J.E. Matthias. 1977. Lars Noren and Jan Ostergren: Versions from the Swedish made with Goran Printz-Pahlson. Poetry and Audience Spring:29-35.
J.E. Matthias. 1977. Pointless and poignant. Poetry 129(6):340-355.
J.E. Matthias. 1977. Two poems: 26 June 1381/1977 and 59 Lines Assembled Quickly Sitting on a Wall Near the Reconstruction of the Lady Juliana's Cell. PN Review 5(1):13-14.
J.E. Matthias. 1977. Friendship. Times Literary Supplement. 15 July:804.
J.E. Matthias. 1977. Swimming in the quarry at midnight. Pages 421 in, A.L. Lazarus, ed. The Indiana Experience. Indiana University Press, Bloomington and London.

Government and International Studies

- Francis, Michael J.
M.J. Francis. 1977. Military Assistance and Influence: Some Observations. Military Issues Research Memorandum. U.S. Army War College. 19 pp.
M.J. Francis. 1977. The Limits of Hegemony: United States Relations with Argentina and Chile during World War II. University of Notre Dame Press. 304 pp.
Loescher, Gilbert D.
G.D. Loescher. 1977. U.S. human rights policy and international financial institutions. The World Today 33:453-464.

History

- DeSantis, Vincent P.
V.P. DeSantis. 1977. Review of Morton Keller, Affairs of State: Public Life in Late Nineteenth Century America. The Journal of Southern History 43:624-625.
Gleason, Philip
P. Gleason. 1977. John Carroll and American Catholicism. Review of Politics 39:403-407.

Modern and Classical Languages

- Lacombe, Anne
A. Lacombe. 1977. French for journalism and business. The French Review 51(1):53-58.

Music

- Wiskirchen, CSC, George C.
G.C. Wiskirchen, CSC. 1977. It don't mean a thing if it ain't got that swing. Selmer Bandwagon 84:28-31.
G.C. Wiskirchen, CSC. 1977. NCBA Liturgical Music Sourcebook. National Catholic Bandmasters Association, Notre Dame, Indiana. 40 pp.
G.C. Wiskirchen, CSC. 1977. Transcription for Brass Ensemble of Hans Leo Hassler's Canite Tuba. G.I.A. Publications, Inc., Chicago, Illinois.
G.C. Wiskirchen, CSC. 1977. Transcription for Brass Ensemble of Hans Leo Hassler's Ecce Maria. G.I.A. Publications, Inc., Chicago, Illinois.
G.C. Wiskirchen, CSC. 1977. Transcription for Brass Ensemble of Jacobus Gallus Ascendit Deus. G.I.A. Publications, Inc., Chicago, Illinois.
G.C. Wiskirchen, CSC. 1977. Transcription for Double Brass Ensemble of Jacobus Gallus' Alleluia. G.I.A. Publications, Inc., Chicago, Illinois.

Psychology

- Ryan, Ellen B.
E.B. Ryan. 1977. Review of Meaning in Child Language by L.B. Leonard. Harvard Educational Review 47(3):438-441.
E.B. Ryan, M.A. Carranza and R.W. Moffie. 1977. Reactions toward varying degrees of accentedness in the speech of Spanish-English bilinguals. Language and Speech 20(3):24-26.

Sociology and Anthropology

- Press, Irwin
I. Press. 1977. The urban curandero. Pages 454-464 in, D. Landy, ed. Culture, Disease and Healing. Macmillan, New York.

SCIENCE

Biology

- Bender, Harvey A.
M.J. Mahoney, H.A. Bender, N. Fost, F.D. Frigoletto, M. Kaback, B. Mirkin and L. Walters. 1977. The nature and extent of research involving living human fetuses. Pages 1-1--1-48 in, Research on the Fetus. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, Department of Health, Education and Welfare.

Chemistry

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T.P. Fehlner. 1977. Heteroatom stabilized group III homocatenated rings. Pages 181-201 in, A.L. Rheingold, ed. Chains and Macromolecules of Main-Group Elements. Elsevier Scientific, New York, New York.
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- Scheidt, W. Robert
W.R. Scheidt, A.C. Brinegar, E.B. Ferro and J.F. Kirner. 1977. Nitrosylmetalloporphyrins. 4. Molecular stereochemistry of two crystalline forms of nitrosyl- $\alpha,\beta,\gamma,\delta$ -tetraphenylporphinato (4-methylpiperidine)-iron (II). A structural correlation with ν (NO). Journal of the American Chemical Society 99(22):7315-7322.
- Thomas, J. Kerry
*D.P. Bakalik and J.K. Thomas. 1977. Micellar catalysis of radical reactions. A spin trapping study. Journal of Physical Chemistry 81(20):1905-1908.

* Under the Radiation Laboratory

Earth Sciences

- Gutschick, Raymond C.
J. Rodriguez and R.C. Gutschick. 1977. Barnacle borings in live and dead hosts from the Louisiana Limestone (Famennian) of Missouri. Journal of Paleontology 51(4):718-724.
- Horodyski, Robert J.
R.J. Horodyski. 1977. Lyngbya mats at Laguna Mormona, Baja California, Mexico: Comparison with proterozoic stromatolites. Journal of Sedimentary Petrology 47(3):1305-1320.

Mathematics

- Knight, Julia F.
J.F. Knight. 1977. Skolem functions and elementary embeddings. Journal of Symbolic Logic 42(1):94-98.
- Nadel, Mark E.
M.E. Nadel and J. Stavi. 1977. The pure part of HYP(M). The Journal of Symbolic Logic 42(1):33-46.

Microbiology

- Burleson, Gary R.
*M. Pollard, G.R. Burleson and P.H. Luckert. 1977. Factors that modify the rate and extent of spontaneous metastases of prostate tumors in rats. Pages 357-366 in, S.B. Day, ed. Cancer Invasion and Metastasis: Biologic Mechanisms and Therapy. Raven Press, New York.
- Pollard, Morris
*M. Pollard, G.R. Burleson and P.H. Luckert. 1977. Factors that modify the rate and extent of spontaneous metastases of prostate tumors in rats. Pages 357-366 in, S.F. Day, ed. Cancer Invasion and Metastasis: Biologic Mechanisms and Therapy. Raven Press, New York.

* Under the Lobund Laboratory

Physics

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N.N. Biswas, P.D. Higgins, J.M. Bishop, R.L. Bolduc, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. 1977. Inclusive Δ^{++} (1236) production in the 200 GeV/c π^-p Reaction. Physical Review D16:2090-2097.
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C.D. Lin, W.R. Johnson and A. Dalgarno. 1977. Oscillator strengths of transitions between low-lying S and P states of helium-like ions. The Astrophysical Journal 217:1011-1015.
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Poirier, John A.

E.B. Dally, D.J. Drickey, J.M. Hauptman, C.F. May, D.H. Stork, J.A. Poirier, C.A. Rey, R.J. Wojslaw, P.F. Shephard, A.J. Lennox, J.C. Tompkins, T.E. Toohig, A.A. Wehmann, I.X. Ioan, T.S. Nigmanov, E.N. Tsyganov and A.S. Vodopianov. 1977. A direct measurement of the π^- form factor. Physics Review Letters 39:1176.

Shephard, William D.

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ENGINEERING

Aerospace and Mechanical Engineering

Ariman, Teoman

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Monthly Summary

Awards Received

IN THE MONTH OF NOVEMBER, 1977

Department or Office	Principal	Short title	Sponsor	Dollars Months
AWARDS FOR RESEARCH				
Chemistry	Castellino	Blood coagulation protein - metal ion - lipid interactions	Natl. Inst. Health	73,535 12
Microbiology - Lobund Lab.	Wostmann, Madsen, Pleasants	Characterization of nutritionally defined gnotobiote	Natl. Inst. Health	90,502 12
Aeros. Mech. Eng.	Yang, Lloyd	Fire and smoke spread	Natl. Bur. Std.	83,906 12
AWARDS FOR EDUCATIONAL PROGRAMS				
Law School	Crutchfield	Law School-street program	Lilly Endow., Inc.	19,000 10
College Engineering	Marley	Women and minorities in engineering	Corning Glass Works Fdtn.	5,000 9
SERVICE PROGRAMS				
Center Human Devel.	Dwyer	Needs assessment program	---	1,543 --

Proposals Submitted

IN THE MONTH OF NOVEMBER, 1977

Department or Office	Principal	Short title	Sponsor	Dollars Months
PROPOSALS FOR RESEARCH				
Physics	Browne	Nuclear structure research	Natl. Sci. Fdtn.	638,992 12
Aerospace Mech. Eng.	Biles	Evaluate transfer machine and material handling operations	F. Joseph Lamb Co.	10,000 6
Aerospace Mech. Eng.	Jolles	Interferometric technique for stress intensity determination of cracks	Amer. Soc. Mech. Eng.	14,780 12
Ctr. Civil Rights, Law School	Kommers, Link	Civil rights history project on the Eisenhower Administration	CBS Fdtn.	27,500 24
Ctr. Civil Rights, Law School	Kommers, Link	Bibliographical project in international human rights	Ford Fdtn.	7,700 24
Chemistry	Freeman	Synthesis of benzafuran and indole derivatives	Natl. Inst. Health	46,696 12
Electrical Eng.	Kwor	Evaluation of ion implanted silicon photovoltaic cells	Natl. Sci. Fdtn.	30,411 16.5
Electrical Eng.	Ajmera	Electrical characterization of casting surfaces	Wheelabrator-Frye, Inc.	3,221 3
Civil Eng.	Sturm	Interaction of density currents and wind-induced mixing	Natl. Sci. Fdtn.	25,751 16.5
Electrical Eng.	Fagel	Minimax approach to adoptive control	Natl. Sci. Fdtn.	27,838 16.5
Aerospace Mech. Eng.	Nelson	Low level wind shear on the handling characteristics of aircraft	Dept. Transportation	65,739 24
Metal. Eng., Mat. Sci.	Fiore	Environment-assisted failure of FCC high alloys	Natl. Sci. Fdtn.	304,770 36
Metal. Eng., Mat. Sci.	Allen	Planar defects and properties of single crystal intermetallics	Natl. Sci. Fdtn.	239,773 36

Department or Office	Principal	Short Title	Sponsor	Dollars Months
Chemistry	Castellino	Structure-function studies on plasminogen and plasmin	Natl. Inst. Health	64,574 12
Electrical Eng.	Kwor	Ion implanted silicon photovoltaic cells	Inst. Elect. Electronic Eng.	14,780 12
Ctr. Study Man	Valdez, Aldous	Mexican-American family patterns on occupational placement	Dept. Labor	15,990 12
Physics	Biswas, Cason, Kenney, Shephard	High energy elementary particle physics	Natl. Sci. Fdn.	725,810 24
Economics, Civil Eng.	Marsh, Thompson	User values and perceptions in individual choice models	Dept. Transportation	96,253 14
Biology	Weinstein	Development of parasitic helminths in vitro	Natl. Inst. Health	92,729 12
Chemical Eng.	Varma	Mechanisms of heterogeneous catalytic reactions	Amer. Chem. Soc.	45,000 36
PROPOSALS FOR FACILITIES AND EQUIPMENT				
Chemical Eng.	Varma	Mechanisms of heterogeneous catalytic reactions	Research Corp.	13,338 12
PROPOSALS FOR EDUCATIONAL PROGRAMS				
Art	Geoffrion	Visiting artist and lecturer program	Natl. Endow. Arts	1,620 1
Physics	Cushing	Faculty open fellowship	Lilly Endowment	27,360 9
General Program	Lyon	Faculty open fellowship	Lilly Endowment	29,000 9
General Program	Nicgorski	Faculty open fellowship	Lilly Endowment	25,112 8.5
Ctr. Civil Rights, Law School	Kommers, Link	Center for Civil Rights	Ford Fdn.	48,000 24
Chemical Eng.	Varma	Applied mathematics for scientists and engineers	Exxon Educ. Fdn.	29,974 7
Earth Sciences	Murphy	Pre-college teacher development in science project	Natl. Sci. Fdn.	34,981 12
Chemistry	Bottei	Environmental chemistry for high school teachers	Natl. Sci. Fdn.	13,136 3 wks
Mathematics	Borelli	Pre-college teacher development project	Natl. Sci. Fdn.	49,985 12
Government	Francis	Introductory undergraduate courseware development	Office Education	25,807 12
College Bus. Admin.	Rueschhoff	Global awareness program	Office Education	91,560 12
Modern Languages	Minamiki	Library support program	Japan Fdn.	10,000 12
Administration	Burns	Faculty development and value education	Lilly Endowment	265,848 27
Psychology	Crowell	Laboratory-based curriculum component in undergraduate psychology	Natl. Sci. Fdn.	229,295 36

Summary of Awards Received and Proposals Submitted

IN THE MONTH OF NOVEMBER, 1977

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	3	\$ 247,943	-	\$ - - -	3	\$ 247,943
Facilities and Equipment	-	- - -	-	- - -	-	- - -
Educational Programs	1	19,000	1	5,000	2	24,000
Service Programs	-	- - -	1	1,543	1	1,543
Total	4	\$ 266,943	2	\$ 6,543	6	\$ 273,486

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	5	\$ 1,826,875	15	\$ 671,432	20	\$ 2,498,307
Facilities and Equipment	-	- - -	1	13,338	1	13,338
Educational Programs	2	58,000	12	823,678	14	881,678
Service Programs	-	- - -	-	- - -	-	- - -
Total	7	\$ 1,884,875	28	\$ 1,508,448	35	\$ 3,393,323

Closing Dates for Selected Sponsored Programs

Proposals must be submitted to the Office of Research and Sponsored Programs seven (7) calendar days prior to the deadline dates listed below.

Agency	Programs	Application Closing Dates
Alcohol, Drug Abuse, and Mental Health Administration	Research Scientist Development Program	February 1, 1978
Department of Agriculture	Agriculture Research	February 1, 1978
Department of Justice	Law Enforcement Education Program	February 3, 1978
National Institute on Drug Abuse	Developmental Training Grants in Drug Abuse	February 1, 1978
National Institutes of Health	National Research Service Awards - Individual Fellows	February 1, 1978
National Institutes of Health	National Research Service Awards - Institutional Grants	February 1, 1978
National Institutes of Health	Research Career Development	February 1, 1978
National Institute of Mental Health	Training Grants - Division of Special Mental Health	February 1, 1978
National Science Foundation	Graduate Fellowships in the Atmospheric Sciences	February 1, 1978
National Science Foundation	Information Dissemination for Science Education	February 15, 1978
National Science Foundation	Postdoctoral Appointments - National Center for Atmospheric Research	February 1, 1978
National Science Foundation	Specialized Research Equipment	February 1, 1978
Public Health Service	Commissioned Officer Student Training and Extern Program	February 1, 1978

documentation

Minutes of the 177th Meeting of the Graduate Council October 31, 1977

The 177th meeting of the Graduate Council was called to order at 3:30 p.m., Monday, Oct. 31, 1977, in Room 121 Hayes-Healy Center. All council members, except Robert L. Kerby (excused), Charles W. Allen and William C. Grant were present. Also attending at the invitation of the council were James I. Taylor, Albin A. Szewczyk and James J. Carberry for the presentation and discussion of the Civil Engineering Final Review Report. Allen informed the Graduate Office later that he had not received the agenda of this meeting.

I. APPROVAL OF THE MINUTES OF THE PREVIOUS MEETING

The minutes of the 176th meeting were unanimously approved as distributed except for the section II. ANNOUNCEMENT OF NEW ELECTED GRADUATE COUNCIL MEMBERS amended as follows:

In the Humanities and Social Sciences Divisions, Robert L. Kerby (history) and Frank J. Bonello (economics) were elected to four-year terms; in the Science Division, William D. Shephard (physics) to a three-year term; in the Engineering Division, Charles W. Allen (metallurgy) to a four-year term and John W. Lucey (aerospace-mechanical engineering) to a three-year term.

II. NEW COUNCIL MEMBERS

Chairman Robert Gordon introduced the new members to the council:

Ex officio members: Bro. Leo V. Ryan, C.S.C., Dean of the College of Business Administration
Chau T.M. Le, Assistant Vice President for Advanced Studies
Elected members: Robert L. Kerby, Associate Professor of History (absent)
Charles W. Allen, Professor of Metallurgical Engineering (absent)
William D. Shephard, Professor of Physics
John W. Lucey, Associate Professor of Aerospace and Mechanical Engineering
Appointed Members: David C. Leege, Professor of Government and International Studies
Thomas A. Werge, Associate Professor of English
Robert L. Irvine, Associate Professor of Civil Engineering
Graduate Student Representatives:
William C. Grant, Physics (absent)
Philip A. Rising, Physics

III. ADMISSION TO THE GRADUATE FACULTY

The council approved the following recommendation from the Department of Mathematics for admission to the graduate faculty of Julia F. Knight, Assistant Professor of Mathematics. The Office of Advanced Studies will inform the department of this admission by letter.

IV. FINAL REPORT ON THE GRADUATE PROGRAM OF CIVIL ENGINEERING DEPARTMENT

The chairman welcomed Szewczyk, Carberry and Taylor to the council and invited Szewczyk, as chairman of the University Review Committee, to present the Committee's Final Report (Report D).

Szewczyk began with remarks on the programs of the department. The Environmental Health Engineering (EHE) Program was generally commended by the reviewers although one of these questioned whether an engineering degree should be awarded to students without engineering background. The Structural Engineering Program, Szewczyk reported, needs rejuvenation, and also faculty cooperation from other areas, in particular those of soils and materials. The Soil Mechanics and Foundation Engineering Program is adequate for an M.S. program and should be continued. The proposed program in construction engineering and management, assuming that demand exists among Notre Dame graduates, should require no new commitment of resources.

The three-man faculty in the EHE Program, according to Szewczyk's summary, is strong and more fully committed to graduate work. The remaining faculty is too heavily burdened with undergraduate teaching to do justice to research and the graduate program.

The quality of the students, in general, is lower than might be expected. The students seem to be dissatisfied with the fact that a number of courses are listed in the catalog but in fact are unavailable to them.

Two practices have come under criticism. Students are now allowed to take 300- or lower level courses for graduate credit although these courses are in areas new to them. The five-student minimal enrollment requirement per graduate course (imposed by the college) is also considered to be a limiting factor affecting the breadth and flexibility of the graduate program.

Library holdings and facilities seem adequate but technical support personnel in the laboratory is minimal.

Szewczyk concluded his report with a number of recommendations relating to the above remarks, including the recommendation for an increase of two or three faculty members.

James Carberry, the division representative on the Review Committee, added that the need of taking lower-level courses would not be limited to non-engineering students in EHE only but would also apply to other civil engineering students going into EHE with regard to areas with which they are unfamiliar.

James I. Taylor, chairman of the Department of Civil Engineering, was next invited to comment on the Final Report. He recognized the need for rejuvenation in the Structural Engineering Program, that this program had a small faculty and that this faculty would have to work more closely with members in other areas. He pointed out, however, that since the site visit a new member, Michael G. Katona, had been added to the faculty. This addition, as well as other measures being taken by the department, will strengthen both the research orientation of the department and the cooperation between structural engineering and soil mechanics. There was in recent years a considerable turnover in the faculty and in the department's leadership. The structural engineering faculty now begin to meet more as a group, but more time will be needed to bring about the desired degree of cohesion. One more faculty position will be filled, and the department is looking for a candidate in the area of soil mechanics who can work cooperatively with the structural engineering faculty. The new program proposal in the area of construction should be allowed to sit for a while.

A proposal for a new Structural Testing Laboratory is being considered in the dean's office. For the present, Katona's research is largely theoretical and requires more use of the computer, which the University can supply, rather than a large laboratory for experimental testing.

Taylor thought that the criticism concerning student quality would be more applicable to a few isolated cases than as a general rule. Further, non-engineering students in the EHE program usually score lower than engineering students in the quantitative area of the GRE examination. To help attract better quality students, the department would need to provide more visibility to the program and better recruitment efforts, hopefully with the help of alumni. Taylor recognized it as a problem that some courses are listed but not actually offered to students, but expressed some surprise as he himself had not heard any complaint directly from the students on this score. Permission to take lower level courses for graduate credit would require University approval. Taylor concurred with the recommendation that the faculty should be increased, if possible. On the other hand, the five-student minimum rule did not appear unreasonable as the department could always petition the dean for exceptions if there was real need. Given the current faculty situation, however, the department could ill afford, in most cases, to give a course to fewer than five students.

Following Taylor's comment, the chairman invited council members to join in the discussion of the Departmental Response (Report C) and the Final Report (D). A lively discussion ensued, touching on the following main points: full load in the Department of Civil Engineering; external funding to provide release time; technical support personnel at public and private universities; size of the faculty as compared with the number of programs in the department; the place of the Transportation Program in a Civil Engineering Department; matrix programs; engineering program accreditation; job market, and lack of a statement of what constitutes good service in regard to promotion and tenure.

Referring to the Final Report's recommendation that the faculty should be increased, Dean Joseph Hogan observed that the number of faculty members in the College of Engineering had remained static in the last five or six years while undergraduate enrollment had doubled.

The discussion ended with the chairman calling for successive motions to approve the Final Report of the University Review Committee (Report D) and the Departmental Response to the external reviewers' reports (Report C). Both reports were unanimously approved.

V. INTERVAL BETWEEN REVIEWS OF THE INDIVIDUAL DEPARTMENTS

Chairman Gordon reviewed some arguments for and against a fixed length of time between reviews for all departments and proposed that a subcommittee of three members be appointed to study the various positions and related issues, and to present recommendations to the council at a future meeting. This proposal was approved unanimously.

VI. CHAIRMAN'S REMARKS

In response to Morton Fuchs' recommendation that the Office of Advanced Studies reconsider the levying of an application fee as it has had a restrictive effect on the number of applications this year, in particular on the applications in the departments of biology and chemistry, the chairman compared the application figures between 1972 and 1977. These appeared practically unchanged. He observed that a large number of reputable institutions, both public and private, have application fees, and at Notre Dame these fees appear to have had no negative effect on the number of domestic applications.

According to Philip A. Rising, graduate student representative, in making their applications, students would consider in the first place what a department has to offer rather than its application fee.

The chairman, next, commented on this year's enrollment. A general decrease is seen in the humanities and social sciences, notably in history, modern languages and sociology, whereas engineering is on the increase. In science there is a slight decrease in the total of all graduate departments, the decrease being most marked in biology.

Rev. Robert J. Austgen, C.S.C., informed the council of a survey that the Graduate Admissions' Office had carried out for the last two years concerning the reasons for "declines", i.e. admitted students who declined to enroll at Notre Dame.

The meeting was adjourned at 5:30 p.m.

Chau T.M. Le
Secretary

Report D

Review of the Graduate Program of the Department of Civil Engineering

The three members of the external review committee, Harold T. Michael of Purdue University, John B. Nesbitt of Pennsylvania State University and Chester P. Siess of the University of Illinois visited Notre Dame on March 28-30, 1977. Prior to their visit, they were supplied with pertinent reports from the Department of Civil Engineering and the Office of Advanced Studies. During their visit they interviewed students, faculty members and administrators, and visited the laboratory facilities. They submitted their separate reports to the Office of Advanced Studies in April and early May. The graduate faculty and the chairman of the Department of Civil Engineering discussed these reports during the summer months and submitted their response in early September. This report will attempt to summarize briefly the above reports.

PROGRAMS

a) Environmental Health Engineering (EHE)

All of the reviewers commended the department on the strongly funded, well-staffed and academically productive program in EHE. The faculty is young but has had remarkable success in obtaining supported research and developing a good research base. Because its strongly supported research program preempts manpower resources, the faculty contributed the least in teaching service within the department as well as within the college. Also noted was the increasingly interdepartmental character of the program and the correspondingly diminishing involvement in other programs of the department. Overall the program was highly regarded and should continue to be supported and allowed to grow at a reasonable pace.

b) Structural Engineering

The structural engineering program which traditionally is the core of the civil engineering program is in need of strong rejuvenation. At present there does not exist a "critical mass" for a viable graduate program. The present four staff members are less research oriented and more isolated in their own teaching responsibilities. The lack of leadership to unify the present staff and encourage cooperation with the soils and materials faculty is quite evident. In addition current space and facilities in this area are inadequate to carry out and develop a research program. Additional faculty members must be added in this area and staff teaching loads reduced to develop a viable graduate and research program.

c) Soil Mechanics and Foundation Engineering

This program appears to be a minimally adequate M.S. program and should be continued. Its faculty should be encouraged to cooperate and participate in an expanded program in structures.

d) Transportation

A limited program in transportation planning is adequately staffed and could enrich the graduate program without increases in staff and facilities. The local community can be used as a laboratory.

e) Construction Engineering and Management

This is a new program that can be initiated without any commitment of resources. The program would draw on staff from the other related areas and would require one faculty member to enthusiastically develop and direct the program.

FACULTY

The external reviewers commented upon the strengths and weaknesses of faculty primarily as related to their associated areas of the graduate program. The reviewers noted that the area of environmental health engineering was best staffed and had a critical mass. If the same degree of expertise was desired in each of the recognized areas in the program and with the addition of a sixth area, the civil engineering faculty would have to be expanded. With the exception of the three-man faculty group in EHE, the other faculty members, all of whom are listed as graduate faculty, have very heavy commitments to lower level and non-civil engineering courses. As a result of their teaching loads, the faculty have not had adequate time to seek research funding, develop their own areas of research and participate fully in the graduate program. The department concurs with these obser-

ventions and hopes in the future to provide a second, viable, strong graduate program to integrate as many of these faculty members as possible. The viability of the remaining faculty members remains an open question. It should be noted that if the department was to recruit and hire additional faculty, they would and probably should be in areas that can be strengthened and expanded. One-man specialty areas should be avoided unless they can complement the already existing faculty in environmental health engineering and the structures programs.

GRADUATE STUDENTS

Overall, the graduate program draws a large percentage of its students from the Notre Dame undergraduate program. Liberal admission standards have resulted in below-average quality students in the Ph.D. programs, however quite adequate for the M.S. degree. The department has not recruited graduate students very well or publicized its programs. If the department is to actively recruit graduate students, the stipends will have to be raised to become competitive. Students generally were discontent over program offerings within the listed offerings as compared to the actually taught options. In addition, concern was voiced over the fact that 300-level and under courses could not be taken for graduate credit even though the area was a new one for the student. This fact coupled with the college imposed regulations establishing a minimum of five students in a graduate course severely limits the breath and flexibility of the program.

OTHER CONCERNS

- a) The reviewers cited their concern for giving an engineering degree to non-engineering, science-oriented students in the EHE program. They felt the concept of admitting non-engineering, science-oriented students into the program was good. However, the implications of the degree title with respect to various civil service boards, professional engineering boards, etc. could become a problem.
- b) Library holdings and facilities appeared to be adequate. An attempt for rapid access to collections at nearby libraries should be developed.
- c) Technical support personnel in the laboratories are minimal and staff should be increased.

CONCLUSION

- 1. Programs should be limited to only a few areas.
 - a) EHE should be allowed to grow slowly.
 - b) Structural engineering should be developed as the core of the department.
 - c) Other areas: Allow for M.S. students with an occasional Ph.D. candidate.
- 2. The faculty should be increased by two to three members. The staff recruited should be judiciously selected so as to fit well into the department's program. This should relieve teaching loads for productive research activity and participation in graduate studies.
- 3. More adequate space and facilities are required for research, both in the EHE and structural and engineering programs.
- 4. Students armed with non-chemical engineering undergraduate degrees should be permitted to achieve graduate credit for 300- and 400-level courses in chemical engineering and allied disciplines (e.g. organic chemistry, chemical engineering) not found in their BS transcript.
- 5. The arbitrary five student minimum for a graduate course offering must be abandoned as it penalizes the students' scope of electives and frustrates faculty members' innovation.

Professor Albin A. Szewczyk
Chairman

Professor James J. Carberry
Engineering Division Representative

Director of University Libraries Search Notice

December 6, 1977

To the University community:

Notre Dame is now searching for a director of University Libraries. The Faculty Committee for University Libraries and the Committee on Appointments and Promotions of the library constitute the Search Committee charged with recommending to the provost of the University candidates for the office of Director of Libraries.

We invite applications and nominations for this position. Following is a copy of our national advertisement to appear in the Chronicle of Higher Education on Dec. 12 and 19, 1977. Nominations and applications (including curriculum vitae) should reach the chairman of the Search Committee no later than Feb. 1, 1978.

Michael J. Crowe
Vincent P. DeSantis (Chairman)
John W. Lucey
Thomas J. Schlereth
James L. Wittenbach
Maureen L. Gleason
Charlotte A. Ames
Franklin L. Long
Joseph H. Huebner
Allan H. Schell

Library Search Committee

THE UNIVERSITY OF NOTRE DAME

DIRECTOR OF UNIVERSITY LIBRARIES

The University of Notre Dame invites applications and nominations for the Director of University Libraries. The director is responsible for the overall administration of the campus library operations including branches, and reports to the Provost.

Candidates should have a strong appreciation of and commitment to excellence in scholarship, research and instruction. The person to be appointed must have sound professional qualifications, proven administrative ability, a knowledge of the operation of research libraries, and an understanding of the role of libraries in a University context.

Salary is negotiable depending upon qualifications and experience.

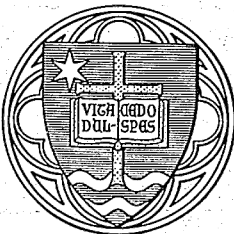
The position will be available July 1, 1978. Nominations and applications (including curriculum vitae) should be sent before Feb. 1, 1978.

Prof. Vincent P. DeSantis, Chairman
Library Search Committee
P.O. Box 562
University of Notre Dame
Notre Dame, Ind. 46556

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Dean Joseph C. Hogan
College of Engineering
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