

'76-'77

# notre dame report

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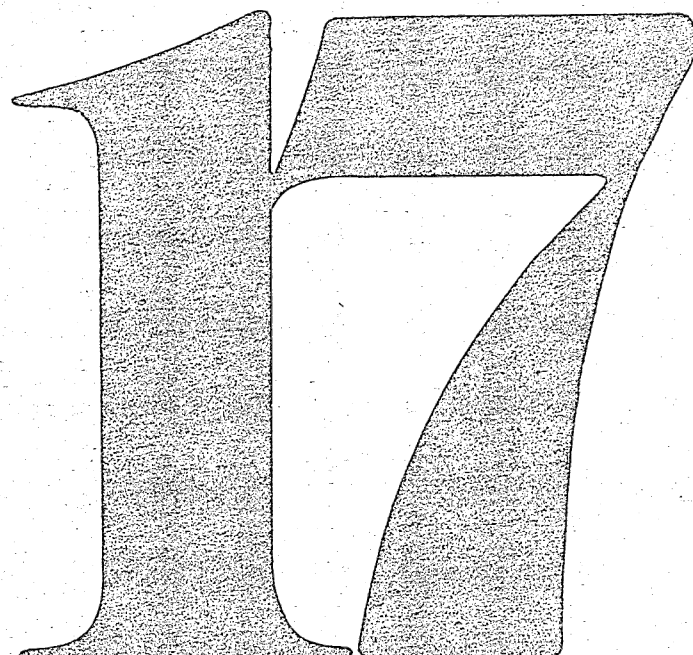
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# the university

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## Cronin Wins Sheedy Award

Edward J. Cronin, associate professor in the general program of liberal studies has been named the 1977 winner of the Sheedy Award for excellence in teaching in the College of Arts and Letters. A 1938 graduate of Notre Dame, Cronin joined the faculty in 1949 after teaching three years at the University of Minnesota. He will receive the award during the fall meeting of the college's Advisory Council.

In student-published course evaluations over the years, Cronin has been consistently praised for his attention to the quality of classroom writing and his willingness to spend long hours with students. He received his master's degree at the University of Chicago and his doctoral degree from the University of Minnesota. A specialist in Victorian literature, his Ph.D. thesis was on Joseph Conrad.

The Sheedy Award was established by an anonymous donor to honor Rev. Charles E. Sheedy, C.S.C., former dean of Arts and Letters. Recipients are chosen by a student-faculty committee and the award includes a \$1,000 check.

## Law School Gift

Notre Dame revealed that a major gift from Thomas White, a St. Louis alumnus, will enable the establishment of the Thomas and Alberta White Center for Law, Government and Human Rights within the Law School. University officials declined to reveal the amount of the gift but said it was the largest ever received by its Law School, founded in 1869 and the oldest in the nation under Catholic auspices.

Dean David T. Link of Notre Dame's Law School said the White Center's program of training law students for government service had the following components:

- 1) The Thomas and Alberta White Endowed Professorship in Law, which was established earlier in 1975.
- 2) The Extern-Intern Program, which will provide scholarship-supported law students an opportunity to augment their regular legal studies with electives centering on governmental law, as well as to spend a summer and a semester in Washington congressional or federal agency work.
- 3) A scholarly journal treating current legislative and federal administrative issues.
- 4) A "Congressional Cloakroom," which will bring outstanding persons in legislative and administrative areas regularly to the campus to discuss current issues.
- 5) The White Law Library Collection, an acquisitions program designed to make Notre Dame a major center for the scholarly analysis of the process of governmental law.

The benefaction comes from the president of a St. Louis commercial and industrial real estate development firm and his wife. After graduating from Notre Dame, White received a law degree in 1940 from St. Louis University, and subsequently organized the development firm which was to build shopping centers, industrial parks and office complexes in the St. Louis area. White has also been active in numerous charitable and civic activities on the local and national level. He has been on the Advisory Council for the School of Law at Notre Dame since 1971.

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## Faculty Summer Seminar

A grant from the Uniroyal Foundation has made possible again this summer a faculty seminar on the Historical Development of Science and Technology. The seminar will meet eight times during the summer session for readings and discussion and six faculty from the colleges of sciences, engineering, and arts and letters will participate. The seminar has been organized by Michael J. Crowe, professor in the general program of liberal studies and graduate program in history and philosophy of science. For more information contact Professor Crowe.

## Seminar Plans Future Vatican Council

Hans Kung, Avery Dulles and Charles Curran will be among an international group of 71 theologians and social scientists who will participate in the colloquium, "Toward Vatican III: The Work That Needs to be Done". The colloquium will be held at Notre Dame May 29 to June 1, and will begin to define the scholarly research in theology and the social sciences which should concern the Church as it moves toward its next critical turning point.

## Memorial Library Hours

Friday, May 27 - Monday, May 30, 1977

1st and 2nd Floors

Closed: Friday-Sunday

4th through 13th Floors (Tower)

Open: Friday and Saturday 8 a.m.-10 p.m.

Sunday 1 p.m.-5 p.m.

Memorial Library Building will be closed on May 30 (Memorial Day).

The Research Libraries will be closed during the period from Friday, May 27 through Monday, May 30.

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# faculty notes

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## Honors

Alan Dowty, associate professor of government and international studies, was appointed associate editor of Jerusalem Journal of International Relations. He was also elected a member of Core Group, Center for Strategic and Foreign Policy Studies at the University of Chicago. He was also awarded a research grant of \$10,000 by International Crisis Behavior Research Project for book on "A Comparative Study of U.S. Foreign Policy Decision-Making in the 1958, 1970 and 1973 Middle East Crises."

A.L. Gabriel, director of the Folsom Ambrosiana Microfilm and Photographic Collection, received the insignia of Officer of the French Legion of Honor in Paris on April 25.

Richard Hunter, adjunct instructor of management, was awarded a grant to study Polish Literature, Culture and Language at the Jagellonian Institute, Cracow, Poland, July 8-Aug. 22. The program is being sponsored by the Kosciuszko Foundation.

David C. Leege, director of the Center for the Study of Man in Contemporary Society and professor of government, has been appointed by the American Political Science Association to a three-year term as its liaison officer to the American Association for the Advancement of Science.

Thomas L. Whitman, associate professor of psychology, has been reappointed as a consulting editor for the American Journal of Mental Deficiency for the 1977-78 period.

## Activities

Hafiz Atassi, associate professor of aerospace and mechanical engineering, attended and chaired a session of the Fourth Midwestern Universities Fluid Mechanics Retreat, Geneva Center, Rochester, Ind. on April 22-23.

Joseph P. Bauer, associate professor of law, argued a criminal appeal before the United States Supreme Court in Washington, D.C. on April 25. Assisting him in writing the briefs were Conrad Kellenberg and Fernand N. Dutile, professors of law and Charles Crutchfield, assistant professor of law.

James O. Bellis, associate professor of sociology and anthropology, spoke on "The Management of Indiana's Archaeological Resources" on March 12 at the Indiana Archaeology Workshop held in Bloomington. On April 11 he talked on the evaluation of pre-historic resources at Indiana University's Planners' Conference on Complying with Historic Preservation Laws in Bloomington. Prof. Bellis also chaired a panel on Archaeology and Traditional Art in Africa at the Fourth Triennial Symposium on Traditional African Art in Washington, D.C., April 13-16. He gave a lecture entitled "The Archaeological Context for Funerary Terracottas in Ghana."

Robert Betchov, professor of aerospace and mechanical engineering, presented a paper entitled "Use of Mini Computers for 3-D Flow Calculations," at the Fourth Midwestern Universities Fluid Mechanics Conference, Geneva Center, Rochester, Ind. on April 22-23.

Katharina J. Blackstead, assistant librarian, delivered an invited position paper on "Librarianship in the Year 2000," at the College and University Roundtable of the Indiana Library Association in Terre Haute, Ind. on April 15.

Carvel Collins, professor of English, gave two lectures in Nashville, Tenn., on William Faulkner on April 4. They were entitled "A Technique of Fiction in the Modernist Period" and "Literary Iconography."

Michael J. Crowe, professor in the general program of liberal studies and graduate program in history and philosophy of science, chaired a committee for the History of Science Society concerning procedures and priorities for the society's annual meeting. Professor Crowe also spoke at Grand Valley State College on April 11 concerning the construction of an honors program.

Thomas P. Cullinane, assistant professor of aerospace and mechanical engineering, presented an invited paper entitled "Industrial Air Contaminants: An Engineering OSHA Concern," at the 22nd National Symposium of the Society for the Advancement of Materials and Process Engineering held in San Diego, Calif., on April 25-28.

Sr. Elaine DesRosiers, director of educational media, spoke on "The Use of Media in Worship" and "Films and Filmstrips in Religious Education" at the Spring Religion Teacher's Day at St. Matthews Co-Cathedral in South Bend on April 30.

Alan Dowty, associate professor of government and international studies, gave a commentary on Israeli politics on the National Public Service Radio, Feb. 23. On April 8 he lectured on "United States and the Middle East" at the Conference on Arab-Israeli Conflict at Oberlin College, and he was a discussant at the Conference on Great Power Military Intervention in the Middle East at Cornell University, April 21-23. Professor Dowty also spoke on "Post-1973 United States-Middle East Political Relations" at the Regional Conference of American Professors for Peace in the Middle East on "OPEC and U.S. National Energy Policies" at the University of Wisconsin, Madison on May 1.

Harald E. Esch, professor of biology, presented Lectures on "Aerodynamic Output Regulation of Bees in a Wind Tunnel" at Princeton University on March 8, "The Control of Flight in Bees, A Wind Tunnel Study" at Rutgers University on March 9 and "The Flight of Honeybees in a Wind Tunnel, an Attempt to Study Lift and Thrust Control" at Rockefeller University on March 10. He also presented a seminar at the University of Illinois "Aerodynamic Output Regulation of Bees in a Wind Tunnel" on April 19.

R.W. Fessenden, professor of chemistry, was an invited lecturer in the NATO Advanced Study Institute on "Chemically Induced Magnetic Polarization" held at Sogesta, Italy, April 17-30. While in Europe he also presented a paper "Studies of the Reactions of Hydrogen Atoms by Time-Resolved ESR Spectroscopy" at the Faraday Discussion on "Radiation Effects in Liquids and Solids" that was held at the University of Leicester, England, and seminars at the Hahn-Meitner Institute, Berlin, and the Reactor Institute, Delft. He was an invited participant at the Miller Conference on Radiation Chemistry at Portmerion, Wales, March 28-April 1, and the Cartrefle College conference on "Radiation Chemistry and Photochemistry" on March 26.

Morton S. Fuchs, professor of biology, delivered lectures on "Hormonal Regulation of Vitellogenesis in Insects," at the University of Chicago on March 3 and on "A Biochemical Model for Ovarian Development in Insects," at Michigan State University, East Lansing on April 6.

Philip Gleason, professor of history, chaired a session on Authority in Roman Catholicism at the spring meeting of the American Society of Church History held at the Southern Baptist Seminary, Louisville, Ky. on April 23.

Kenneth Goodpaster, assistant professor of philosophy, gave the lecture "Can We Eliminate the Obstacles to an Environmental Conscience?" in the Architecture Building auditorium on April 29.

Raymond C. Gutschick, professor of earth sciences, presented two papers at the Geological Society of America North-Central Section 11th Annual Meeting in Carbondale, Ill., on April 28-29. The papers were "Mississippian Radiolaria and Agglutinate Foraminifera from Deep-Water Sediments in Utah" and "Deep-Water Osagean Conodont Faunas from a Starved Basin in Utah."

David C. Isele, assistant professor of music, directed Notre Dame's Chorale concert on April 24 in Sacred Heart Church.

E.W. Jerger, associate dean of engineering and professor of aerospace and mechanical engineering, spoke on "Fire Phenomena and Development in Buildings" at a conference on Fire Safety Design of Buildings held April 21 at Southern Illinois University, Carbondale.

B.J. Kilbride, professor of finance and business economics, spoke on "Index Funds: The Wave of the Future or a Passing Fad?" at the Securities Management Conference sponsored by Stewardship Services in Chicago on April 26.

Sr. Madonna Kolbenschlag, assistant professor of American studies, gave a presentation on "The News in the Classroom" at the annual meeting of the Midwest Political Science Association, April 23 in Chicago.

David C. Leege, director of the Center for the Study of Man in Contemporary Society and professor of government, participated in the Company-Faculty Forum sponsored by Standard Oil of Indiana held in Chicago, April 4-6. Leege also chaired a panel entitled "Toward Consensus on Research Goals: Political Scientists and the Funders" held at the annual convention of the Midwest Political Science Association, Chicago on April 21-23.

John Lyon, chairman and associate professor of the general program of liberal studies, and Walter Nicgorski, associate professor of the general program of liberal studies, were participants in a Conference on the Liberal Arts, St. John's College, Santa Fe, N.M. on April 21-23.

Jerry J. Marley, associate professor of civil engineering, was a participant of the annual meeting of Civil Engineering Department Chairmen of the Upper Midwest and North Central Regions in Ames, Iowa, March 24 and 25. He also chaired the meeting of the Committee on Student Services, American Society of Civil Engineers in St. Louis, Mo., on April 1 and 2.

Lawrence C. Marsh, assistant professor of economics, presented a paper entitled: "Monte Carlo Simulation of Small Sample Properties of Constrained Estimators for Parameters Subject to Inequality Restrictions" at the Eighth Annual Pittsburgh Conference on Modeling and Simulation in Pittsburgh, Pa. on April 21. He also presented a paper written with Thomas Swartz, associate professor of economics, entitled "A Self-Assessed Property Tax Can Be Effectively Implemented" at the Eastern Economic Association in Hartford, Conn. on April 16.

David W. Morgan, assistant professor of biology, delivered a lecture entitled "Suggestions Regarding Behavioral-Bioacoustic Research to Reduce Porpoise Mortality in Purse Seines" at the Porpoise Mortality Reduction Workshop held in San Diego, Calif. on Feb. 28 to March 1.

Larry K. Patterson, scientist in the Radiation Laboratory, presented a paper entitled "Effects of Aggregation on the Radiation Chemistry of Fatty Acids" at the Radiation Research Society meeting held in San Juan, Puerto Rico, May 8-12.

Thomas W. Renaldi, assistant professor of modern and classical languages, attended the Third Annual Colloquium on Contemporary Literary Methods on April 29 at York College, Jamaica, N.Y. He presented a paper entitled "Mores, Custom and Folkways as Reflected in Gorostiza's El color de nuestra piel."

Quentin Ross, assistant professor of biology, presented a paper entitled "Competition Between a Sylvan and a Domestic Subspecies of Aedes aegypti," at the annual meeting of the American Mosquito Control Association held in New Orleans on March 27-30.

Howard J. Saz, professor of biology, presented a seminar entitled "Specialized Metabolic Pathways in Parasitic Organisms" at Rockefeller University on April 4.

Robert H. Schuler, director of the Radiation Laboratory and professor of chemistry, addressed the junior and senior chemistry classes of Indiana University - South Bend during their recent tour of the Radiation Laboratory on April 22. He also addressed a joint meeting of the Puerto Rico Section of the American Chemical Society and the departments of chemistry of the University of Puerto Rico and the Catholic University of Puerto Rico held at the University of Puerto Rico on May 6. The topic of his lecture was "Electron Spin Resonance Studies of Radiation Induced Processes."

Edward R. Trubac, associate professor of finance and business economics, gave a talk entitled "The Pitfalls of Business Forecasting" to a meeting of the Case County Chapter of the National Management Association in Dowagiac, Mich. on April 4. He also presented a talk entitled "The Economy in 1977 and 1978--Continued Recovery or Coming Recession?" to a meeting of the Northern Indiana Chapter of the Indiana Association of Certified Public Accountants at the Lincoln Highway Inn in Mishawaka, Ind., on April 5.

Arvind Varma, assistant professor of chemical engineering, attended the Fifth North American Meeting of the Catalysis Society in Pittsburgh, Pa., on April 27-28, and presented a paper entitled "Uniqueness Criteria and Stability of the Steady States in Automotive Catalysis."

Donald G. Vogl, associate professor of art, and his son Jim opened a "Two-Man Show" April 25 in the Isis Gallery of the Old Fieldhouse.

R. Brian Walsh, director of the Computing Center, presented a talk entitled "Time-Sharing--A Viable Extension to Existing Systems and an Alternative to Major Investment" to the Michiana Chapter of the Data Processing Management Association (DPMA) in Niles, Mich., on April 21.

K.T. Yang, chairman and professor of aerospace and mechanical engineering, presented a seminar on "Buoyant Flow in Corridors and Compartments-Fire Research at Notre Dame," at the State University of New York at Buffalo on April 28. He also visited the Detroit Diesel Division of General Motors Corp., Detroit, Mich., and presented a lecture on "Notre Dame Fire Research Code-UNSAFE," on May 3-4.

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# office of advanced studies

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## Special Notice

The University now has two agreements with the Battelle Development Corporation for the evaluation, development, and licensing of inventions. The first is a general agreement for the development and licensing of patentable inventions and the second is a technical development agreement which will permit limited development, at the University, of approved invention disclosures. Faculty and students who have presumed inventions are encouraged to take advantage of these two agreements. Information on the Battelle Development Corporation, the two agreements, and procedures is available in the Office of Advanced Studies, Division of Research and Sponsored Programs, Extension 7378.

## Information Circulars

### United States-Israel Binational Science Foundation

No. FY77-96

The Foundation will support cooperative research projects of mutual interest to the United States and Israel, concerned with science and technology for peaceful purposes. Both basic and applied research will be concerned.

For the time being, the Foundation will support research projects in any of the following areas:

- \* Agriculture
- \* Health Sciences
- \* Natural Sciences
- \* Science Services
- \* Technologies of broad interest to both countries, such as mass transportation, energy, arid zone and environmental research.

From time to time the Board of Governors may consider adding new research areas to those currently eligible for support.

Prior to submission of proposals, investigators should contact research agencies, institutions, or individual investigators in either country party to the agreement, to coordinate joint research programs. It is important that the programs submitted are of interest to both countries.

The Foundation will normally finance cooperative research performed substantially in Israel. Allocations are made in Israeli currency.

Cooperative research is viewed by the Foundation as that which involves the active collaboration between Israeli and American scientists. It may take the form of:

- \* joint research activities where inter-dependent projects of a single program are conducted in different laboratories and involve different sources of funding
- \* provision of research facilities, materials, equipment and/or services to cooperating scientists
- \* interchange of personnel
- \* joint planning of research and evaluation of results.

Research proposals should be prepared by Israeli investigators in cooperation with American investigators or vice versa. Scientists unable to submit proposals in cooperation with an investigator from the other country will be assisted by the Foundation in attempting to establish the appropriate contact.

The deadline for receipt of applications is July 1st of each year.

## The Center for Field Research Basic Field Research

No. FY77-97

The Center for Field Research was established to assist scientists and other scholars. The Center is not the source of funds; instead, it reviews and evaluates research proposals, and assigns those accepted to Earthwatch which, in turn, raises the funds from carefully selected non-specialists who collectively finance the projects in return for the opportunity to work as assistants to research scholars in the field. The Center favors post-doctoral research, giving preference to projects whose staffs include graduate students of the discipline. Undergraduate research projects are not currently funded.

Both basic and applied research projects are considered, providing there is space available on the team for participating non-specialists.

Eligible disciplines include, but are not limited to: Anthropology, Archaeology, Astronomy, Biology, Botany, Cartography, Conservation, Ethology, Folklore, Geography, Geology, Marine Sciences, Medicine, Musicology, Ornithology, Restoration, Sociology.

The size of grants is limited by the number of non-specialists participating, since they are the source of Funds. Depending on time and costs in the field, the per-capita contribution of participating non-specialists ranges from \$200 to \$600, exclusive of transportation to research area. Support teams have generally ranged in size from six to fifteen individuals working in the field from two to four weeks. Longer-term support is possible by bringing in successive or staggered teams of participants during a single field season.

### Deadline:

Proposals may be submitted at any time during the year but no later than July 15 for projects beginning the following Winter/Spring and October 15 for the following Summer/Fall. In other words, six to nine months should be allowed between the date of submission and beginning of the field research.

## Indiana Public Service Fellowship Program, Governor's Fellowship Advisory Committee

No. FY77-98

### Purpose:

To increase the effectiveness of State and local government by supporting advanced professional education for public employees. This program represents a joint effort with the Office of the Governor and the School of Public and Environmental Affairs of Indiana University.

### Type of Education Supported:

Support will be restricted to full- or part-time graduate study programs in administration and/or public affairs at accredited academic institutions in Indiana.

### Eligibility:

The applicant must be a full-time employee of either State or local general purpose jurisdictions in Indiana for at least one year immediately preceding the initial fellowship period, have the official endorsement of the administrative head of his jurisdiction (or his designee), and meet institutional requirements for graduate study.



#### Nature and Amount of Support:

Seventy-five percent of actual costs for tuition, fees, and books up to a maximum of \$400 per twelve-month period. Renewal is contingent upon the availability of funds, satisfactory academic progress, continued approval of the applicant's jurisdiction or agency, and recommendation of the Fellowship Advisory Committee.

#### Deadline:

All application materials must be received according to the following schedule: June 1 for the fall semester/fall and winter quarters; November 1 for the spring semester/spring quarter; and March 1 for summer sessions.

Application forms are available in the Office of Advanced Studies, Division of Research and Sponsored Programs.

#### For further information write to:

Indiana Public Service Fellowship Program  
Harrison Building, Suite 502  
143 West Market Street  
Indianapolis, Indiana 46204

### National Science Foundation United States-Australia Cooperative Science Program

#### No. FY77-99

The United States-Australia Agreement for Scientific and Technical Cooperation was signed October 16, 1968. The National Science Foundation (NSF), through its Division of International Programs (INT), is the executive agency for the Agreement in the United States. The executive agency for Australia is the Department of Science (DOS).

The Agreement is intended to provide increased opportunities for scientists and engineers from both countries to engage in joint research projects of mutual interest, to exchange scientific and technical information, to work together in unique environments, and to utilize special facilities. The Agreement forms the basis of the United States-Australia Cooperative Science Program.

All proposals submitted under the U.S. - Australia Cooperative Science Program must be based on cooperation between U.S. and Australian scientists and should be of clear-cut benefit to both sides. Plans for all joint activities should be developed directly between the interested U.S. and Australian scientists, and proposals currently submitted to INT/NSF and DOS, respectively. The funding requests considered by INT/NSF and DOS are for the support of their respective country's

scientists only. All proposals are assessed independently by both executive agencies and require joint approval by both agencies to be included under the Program.

Proposals in all recognized branches of science and technology are eligible for consideration.

The program supports three types of activities:

1. Seminars/Workshops.
2. Joint Research
3. Exchange of Scientific Information.

## Current Publications And Other Scholarly Works

### ARTS AND LETTERS HUMANISTIC AND SOCIAL STUDIES

#### Economics

Jameson, Kenneth P.

K.P. Jameson. 1977. The development of the service sector: An empirical investigation. The Quarterly Review of Economics and Business 17(1):31-40.

#### English

Davis, Walter R.

W.R. Davis. 1977. Arthur, Partial Exegesis, and the Reader. Texas Studies in Literature and Language 18(4):553-576.

#### General Program of Liberal Studies

Crowe, Michael J.

M.J. Crowe. 1977. Who was H.J. Mozans? Isis 68:111.

#### Modern and Classical Languages

Anadon, Jose

J. Anadon. 1977. Epistolario entre Gabriela Mistral y Eduardo Barrios. Cuadernos Americanos 210(2):228-236.

### SCIENCE

#### Chemistry

Schuler, Robert H.

\*R.H. Schuler. 1977. Oxidation of ascorbate anion by electron transfer to phenoxyl radicals. Radiation Research 69:417-433.

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\* Under the Radiation Laboratory  
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### Mathematics

- Hahn, Alexander J.  
A.J. Hahn. 1977. Cayley algebras and the isomorphisms of the orthogonal groups over arithmetic and local domains. Journal of Algebra 45(1):210-246.
- Huckleberry, Alan T.  
A.T. Huckleberry. 1977. Holomorphic fibrations of bounded domains. Mathematische Annalen 227:61-66.  
A.T. Huckleberry. 1977. The holomorphic convexity of pseudoconvex manifolds. Proceedings of Symposia in Pure Mathematics 30:25-29.
- O'Meara, O. Timothy  
O.T. O'Meara. 1977. A general isomorphism theory for linear groups. Journal of Algebra 44(1):93-142.  
O.T. O'Meara. 1977. Lectures on Linear Groups. American Mathematical Society, Providence, Rhode Island. 87 + vii pp.
- Rose, Bruce  
J.T. Baldwin and B. Rose. 1977. Aleph-naught categoricity and stability of rings. Journal of Algebra 45(1):1-16.
- Stoll, Wilhelm  
W. Stoll. 1977. Value distribution on parabolic spaces. Proceedings of Symposia in Pure Mathematics 30:259-263.

### Radiation Laboratory

- Tachiya, M.  
M. Tachiya and H. Watanabe. 1977. Solvation processes of the electron in polar liquids. II. Continuum model. Journal of Chemical Physics 66(7):3056-3060.

## ENGINEERING

### Aerospace and Mechanical Engineering

- Biles, William E.  
W.E. Biles. 1977. Computer simulation and material handling systems. In, Proceedings of 1977 National Material Handling Forum. Chicago, April 18-20.  
W.E. Biles and J.J. Swain. 1977. Optimization of multiple-response simulation models. In, Proceedings of the Eighth Pittsburgh Conference on Modeling and Simulation. University of Pittsburgh, April 21-22.

## BUSINESS ADMINISTRATION

### Accountancy

- Milani, Kenneth W.  
N. Sharp and K.W. Milani. 1977. Hospital budgeting. Management Accounting 57(9): 49-52.

### Management

- Chang, Yu-Chi  
Y.C. Chang and K.S. Kim. 1977. A note on the derivation of the Wishart Density Function. Pages 168-171 in, Southwest AIDS Proceedings.
- Ryan, CSV, Leo V.  
L.V. Ryan, CSV. 1977. Growing up adult in America's Third Century; A response. Religious Education 77(2):163-170.

### Marketing Management

- Mayo, Edward  
E. Mayo. 1976. Restaurant Habits of the Automobile Traveler. National Restaurant Association, Chicago. 42 pp.
- Stock, James R.  
J.R. Grabner, B.J. LaLonde, and J.R. Stock. 1977. Customer service practices in the motor carrier industry. Sales and Marketing Council Bulletin 3-7.
- Weber, John A.  
J.A. Weber. 1976. International market structure profile analysis. Pages 49-54 in, Proceedings of the Academy of International Business.

### LAW

- Postlewaite, Philip F.  
P.F. Postlewaite. 1977. Deductibility of expenses for conventions and educational seminars. Minnesota Law Review 61(2): 253-311.

# Monthly Summary

## Awards Received

IN THE MONTH OF APRIL, 1977

Department or Office	Principal	Short title	Sponsor	Dollars Months
AWARDS FOR RESEARCH				
Microbiology - Lobund Lab.	Pollard, Asano	Colo-rectal carcinogenesis in germfree rats	Natl. Inst. Health	69,651 12
Ambrosiana Collection	Gabriel	Ambrosiana microfilm collection	Natl. Endow. Human.	55,000 12
Administration	Gordon	Biomedical sciences support	Natl. Inst. Health	73,552 12
Microbiology - Lobund Lab.	Pollard	Investigations on prostate adenocarcinomas in rats	Natl. Inst. Health	62,105 12
Chemistry	Hayes	X-ray photoelectron spectroscopy of heme compounds	Natl. Inst. Health	55,310 12
Electrical Eng.	Leake, Sain	Processing capabilities of digital and sampled-data systems	U.S. Air Force	49,740 12
Physics	Marshalek, Shanley	Nuclear structure and reactions	Natl. Sci. Fdn.	19,000 12
Radiation Lab.	Schuler	Effects of radiation on matter	Energy Res. Devel. Admin.	1,053,400 12
Chemistry	Castellino	Activation of plasminogen	Am. Heart Assocn.	15,400 12
Physics	Browne, Chagnon, Darden, Funk, Mihelich	Nuclear structure research	Natl. Sci. Fdn.	350,000 12
Chemistry	Fehlner	Polyalanines: synthesis, stabili- zation, characterization	Natl. Sci. Fdn.	24,900 12
Microbiology - Lobund Lab.	Wostmann, Pleasants, Webb	Enteric antigen in age-related immune changes	Natl. Inst. Health	95,696 12
Chemistry	Creary	Alfred P. Sloan research fellowship	A.P. Sloan Fdn.	14,800 12
AWARDS FOR FACILITIES AND EQUIPMENT				
Radiation Lab.	Schuler	Effects of radiation on matter	Energy Res. Devel. Admin.	88,000 12
AWARDS FOR EDUCATIONAL PROGRAMS				
Cent. Past. Soc. Ministry, Theology	Egan	Conference on China: the religious dimension	Natl. Council Churches Christ	3,500 --
Civil Eng.	Ketchum, Melsa	Design of operating computers for wastewater treatment plants	Natl. Sci. Fdn.	22,900 29
SERVICE PROGRAMS				
Center Human Devel.	Dwyer	Needs assessment program	---	1,500 --

# Proposals Submitted

IN THE MONTH OF APRIL, 1977

Department of Office	Principal	Short title	Sponsor	Dollars Months
PROPOSALS FOR RESEARCH				
Chemical Eng.	Kohn, Luks	Solubility of hydrocarbons in cryogenic NGL and LNG	Natl. Gas Process. Assoc.	12,903 3
Chemical Eng.	Wolf	Catalysis of carbon gasification in the presence of metal halides	Energy Res. Devel. Admin.	21,053 12
Law	Soderquist	Development of a course in corporation law	Exxon Educ. Fdn.	18,904 9
Chemical Eng.	Varma	Catalytic methanation in tube- wall reactors	Energy Res. Devel. Admin.	42,078 24
Chemical Eng.	Carberry, Wolf, Kuczynski	Polymetallic clusters in oxida- tion catalysis	Natl. Sci. Fdn.	52,673 12
Aeros. Mech. Eng.	Cullinane, Jolles	Multiple choice testing in engineering education	Natl. Sci. Fdn.	22,438 12
Chemical Eng.	Kohn, Luks	Phase behavior of CO <sub>2</sub> - oil recovery system	Energy Res. Devel. Admin.	137,755 24
Microbiology - Lobund Lab.	Pollard	Tuberculin hypersensitivity- cellular immunity	Natl. Inst. Health	69,938 12
Aeros. Mech. Eng.	Mueller	Smoke visualization of subsonic and supersonic flows	U.S. Air Force, AFOSR	4,963 12
Electrical Eng.	Quigley	Power supply redesign	Wells Electronics	7,481 3
Microbiology - Lobund Lab.	Wostmann, Webb, Pleasants	Role of enteric antigen in age- related immune changes	Natl. Inst. Health	19,363 12
PROPOSALS FOR FACILITIES AND EQUIPMENT				
Student Activities	Benesh	Improve noncommercial radio broadcast facility	U.S. Off. Educ.	9,385 12
PROPOSALS FOR EDUCATIONAL PROGRAMS				
Law	Link, Crutchfield	South Bend street law program	Lilly Endow., Inc.	33,718 12
Law	Link, Crutchfield	1977 CLEO summer institute	Coun. Legal Educ. Opportun.	46,295 1.5

# Summary of Awards Received and Proposals Submitted

IN THE MONTH OF APRIL, 1977

## AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	11	\$ 1,868,754	2	\$ 69,800	13	\$ 1,938,554
Facilities and Equipment	1	88,000	-	---	1	88,000
Educational Programs	-	---	2	26,400	2	26,400
Service Programs	-	---	1	1,500	1	1,500
Total	12	\$ 1,956,754	5	\$ 97,700	17	\$ 2,054,454

## PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	1	\$ 52,673	10	\$ 356,876	11	\$ 409,549
Facilities and Equipment	-	---	1	9,385	1	9,385
Educational Programs	2	80,013	-	---	2	80,013
Service Programs	-	---	-	---	-	---
Total	3	\$ 132,686	11	\$ 366,261	14	\$ 498,947

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# documentation

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## Minutes of the Academic Council Meeting May 2, 1977

The Academic Council met on Monday, May 2, 1977 and considered these items.

Item I: Proxies or Deputies at Meetings.

James P. Danehy on behalf of the Faculty Senate presented the following motion:

That the Academic Manual be amended by adding the following sentence to the end of the second paragraph of Article IV, Section 2:

An elected faculty member of a University body (exclusive of departmental committees) may, if necessary, be represented by a faculty member appointed as his or her proxy by the elected faculty member. Similarly, a student member of a University body may appoint a fellow student as proxy for a given meeting. Proxy representatives have full speaking and voting privileges.

Discussion: The majority of the members of the Academic Council are elected. If this motion is passed it could end up as a non-elected body. If there are to be proxies they should be elected. It was asked if this point had been discussed. Also the non-elected members can continue to be represented by the next in line. To say that anybody can appoint anybody is to downgrade the body.--It was observed: 1) a large percentage of the Academic Council is not elected. 2) the manual does not impose that the proxy for ex officio members be next in line.--Faculty have to teach and cannot come to meetings. The "if necessary" is included to prevent abuse.

This amendment was moved and seconded:

To rephrase the motion to require that elected members be represented by elected proxies.

Discussion: The amendment would complicate the election process and would limit the faculty member's choice. The purpose of the amendment is to make sure that people who elected the faculty member have some say about who would represent them.

The amendment was defeated by voice vote.

Discussion: The departmental committees were excluded in the motion because of the Committee on Appointments and Promotions and the confidentiality of the material they have to handle. The purpose of the proposal is to achieve equity.

The motion was defeated by voice vote. An alternate motion was made and seconded.

Motion: That the Academic Manual be amended by replacing the last sentence of Article IV, Section 2, paragraph 2, with the following:

Ex officio members of the Academic Council and of the college councils may, if necessary, be represented at meetings by their deputies. Elected members may be represented by elected alternates. In both cases the substitutes have speaking but not voting privileges.

This motion was approved by voice vote.

It was noted this amendment to the Academic Manual needs approval of the Board of Trustees.

Item II: The Leave of Absence Policy for Students.

The leave of absence policy for students as stated in 25.1 of the Academic Code, concludes with this paragraph: "This policy, effective for the academic year 1975-76, will be re-examined after a two-year trial period."

On behalf of the Executive Committee of the Academic Council Dean Isabel Charles moved:

That the leave of absence policy as stated in 25.1 of the Academic Code be continued and that the final paragraph of 25.1 be deleted.

In presenting the motion Dean Charles explained the policy had been used in a positive way. The deans and registrar have worked out satisfactory procedures for implementing the policy.

The motion was approved by voice vote.

Item III: Transfer of an Undergraduate from College to College.

Paragraph 12.2 of the Academic Code states: "The student who wishes to transfer from one college to another college within the University must be in good academic standing. The accepting dean has discretion about which credits are acceptable toward the degree in the new college."

On behalf of the deans of the four colleges Father James Burtchae11 presented this motion:

To amend paragraph 12.2 of the Academic Code to read as follows:

The student who wishes to transfer from one college to another college within the University must have the approval of the deans of both colleges. The accepting dean has discretion about which credits are acceptable toward the degree in the new college.

It was pointed out that each semester an estimated twenty probationary students judge their poor achievement to be a matter of misplacement and take steps to transfer colleges. While attempting to achieve good standing they remain students in one college and take their programs in another. The pattern of movement is almost entirely from science and engineering into arts and letters and business. About eighty per cent to ninety per cent of such students ultimately attain good standing. This mode of operation creates some awkward situations and difficulties. The student and his file are in one college, and his program in another. Getting appropriate advice and counsel for such a student can be difficult. The deans and assistant deans of all four colleges favor the change stated in the motion.

The motion was approved by voice vote without dissent.

Item IV: Student Overloads.

On behalf of the deans of the colleges, Dean Joseph Hogan presented this motion:

That the last sentence of paragraph 9.1 of the Academic Code--"Additional tuition will be charged at the rate per credit hour for overloads"--be deleted and replaced by: "A student may register for a class overload only with the explicit approval of the student's dean."

It was pointed out that the motion of charge for overloads was introduced as a means to prevent students from registering for overloads. To register for too many courses, for example, and make a final selection at a later date is unfair to students who are then excluded from registering for these courses. Father Burtchae11 added that at his request the fee had never been levied because the deans and the registrar started to work on other means of controlling overloads. These means are effective and satisfactory and the fee is no longer necessary.

The motion was approved by voice vote without dissent.

Item V: Time to Decide on Pass-Fail.

The first sentence of 19.1 in the Academic Code states: "Each junior or senior undergraduate may file with the registrar at the time of registration the decision to take one elective course, outside the student's major department and not required by the student's program, per semester on a pass-fail basis."

The following motion was presented on behalf of the five undergraduate student members of the Academic Council.

To amend the first sentence of 19.1 of the Academic Code to read:

Each junior or senior undergraduate may file with the registrar on or before twenty class days the decision to take one elective course, outside the student's major department and not required by the student's program, per semester on a pass-fail basis.

At its meeting of March 24, 1977 the Faculty Senate approved the motion to endorse this proposal from the students.

Discussion: The present policy, though it does not appear in print, is to allow ten days to make the decision about pass-fail. The purpose of the motion is to put in print a definite number of days and to allow the students more time to decide.--If the decision has to be made in ten days it must be made more on hearsay than on experience; hence the desire to extend the time to twenty days.--There is concern that pass-fail is too often being used to pick a lazy course and not as an opportunity to get into other areas.--The decision should be made at the beginning of the semester in the period allowed (seven days) for drop-and-add.

This amendment to the motion was moved and seconded:

To remove "on or before twenty class days" and replace with "during the first seven class days of the semester."

Discussion: It takes several weeks for a student to find out what his class load involves.--The student should make the decision on pass-fail before he starts to get grades for work in the course.--Many students choose courses and then decide later which one will be pass-fail. If the motion is approved the students would have a clouded commitment for a month or so.--There is a better chance the students will use pass-fail for the reasons it was established if they have twenty days to decide rather than just seven or ten.

The amendment was approved by voice vote.

The motion as amended was approved by voice vote.

Item VI: A Discussion of the Policy Prohibiting Evening Examinations.

"The Final Report of the Faculty Senate Ad Hoc Committee on the Departmental Examination Question" was presented by William E. Biles, chairman of the ad hoc committee. Other members of the committee were Nancy Cox, Norman Haaser, Peter Haley, Tracy Kee, Carole Moore, Patricia Tack and Robert Williamson.

It was stated the survey revealed among other things: significant proportion of students disapprove of either 8 a.m. or evening examinations, the more strenuous objections being against 8 a.m. examinations. Faculty who responded to the survey showed little agreement as to when multiple-section courses should be examined.

Father Burtchaeil remarked the report was reassuring. When polling on this policy first started there was lots of disagreement. After one and one-half semesters there has been a significant shift in opinion. The students are divided and so are the faculty. Father Burtchaeil continues to believe the policy is a good one. There is no ideal system; people are for or against any system. He agrees with the committee's summary that there is no clear mandate one way or the other and would think from that we should continue to leave evenings free.

Professor Biles noted: There is no strikingly clear mandate in this sample survey. The smallness of the student sample may be the result of placing too much faith in the campus mail. The faculty response, about fifty per cent, is about what we have seen in the past on similar things. The results support that it is a valid cross section of both the student and faculty populations. The survey also showed that evening examinations did not interfere significantly with other evening activities.



The two conclusions of the survey were presented as a motion and it was seconded:

1. The opportunity for evening examinations should be restored.
2. The prohibition against scheduling classes and laboratories at 8 a.m. on Tuesday and Thursday shall continue. This is to provide flexibility for scheduling examinations.

In discussion a friendly amendment added a third point to the motion:

3. A year from now the Academic Council will take a look at the experience and reconsider the policy.

Discussion: The validity of the survey was questioned; it should not be used as a basis for a policy decision.--There is always a problem of fixing policy on the basis of surveys especially when a survey is inconclusive.--The proposed motion would allow for two examinations in one day or for one in the evening and one at 8 a.m. the next morning.--The council should not invite proliferation of examination periods which is what this proposal does and further, the proposal does not have the good of the student in mind.--If we go with the proposal there will be chaos next year when we attempt to do the proposed study.--A decision based on a survey may not be good but a decision made on executive order is still worse.

The motion with the friendly amendment was defeated by a vote of nineteen in favor and thirty opposed.

Father Burtchaell promised the Academic Council would reconsider the policy next year.

Respectfully submitted,

Rev. Ferdinand L. Brown, C.S.C.  
Secretary to the Academic Council

# Minutes of the 175th Meeting of the Graduate Council March 7, 1977

The 175th Meeting of the Graduate Council was called to order at 3:30 p.m., Monday, March 7, 1977 in Room 121, Hayes-Healy Center. Absent and excused were : Peri Arnold (government), Walter Gajda (electrical engineering), Morton Fuchs (biology), Kenneth Sayre (philosophy), and Albin Szweczyk (aerospace/mechanical engineering).

## I. APPROVAL OF THE MINUTES OF THE PREVIOUS MEETING

The minutes of the 174th Meeting, Feb. 7, 1977, were unanimously approved as distributed.

## II. ADMISSION OF NEW GRADUATE FACULTY

The Council approved the following recommendations for admission to the graduate faculty:

Mitchell Jolles, assistant professor of aerospace and mechanical engineering  
Bruce Rose, assistant professor of mathematics  
Carol Glass, assistant professor of psychology

## III. REPORT D: THE FIORE-LUKS FINAL REPORT OF THE ELECTRICAL ENGINEERING QUINQUENNIAL REVIEW

Prof. Nicholas Fiore, chairman of the University Electrical Engineering Review Committee, presented a summary of his and Prof. Kraemer Luks' final committee report for the council's comments and approval. He focused successively on the mechanics of the external reviewers' site visit; on the contents of their subsequent separate B Reports; on the department's response in its C Report; and on his own and Professor Luks' perceptions of the Electrical Engineering Review as a whole.

On the mechanics of the site visit: Fiore noted that the completeness of the department's pre-site review document (Report A) and the flexibility of the site review schedule permitted the site visitors to address the department's graduate performance, facilities, program and personnel with little if any waste of time or motion in successive one-to-one interactions with staff members and graduate students.

On the contents of the three external reports: Fiore reported that the three reviewers concurred in acknowledging the smooth relations obtained between the department, college and University administrations. They pointed out the current space constraints and facilities obsolescence in the college, conditions soon to be corrected in the up-coming expansion of its physical plant and equipment. All displayed some concern for what they perceived to be an overly narrow feeder pool for graduate admissions composed, as they saw it, of undergraduates from Notre Dame and a few small Catholic colleges and numerous foreign applicants. A discernible uncertainty among some of the staff personnel as to departmental goals and consequent policies they ascribed to was the division within the department between highly visible and productive researchers and less visible teachers with slight research records. This circumstance leads, in some cases, to limited teaching loads for some researchers and, in others, to heavy administrative responsibilities.

On the departmental response document (Report C); Fiore noted that while it recorded the department's broad agreement with the assessments and recommendations of the external reviewers, it dissented from their "exaggerated stress" on the more or less normal dissatisfactions and uncertainties displayed by some of the interviewed staff and students. Finally, in this context, he noted that department's dissent from the reviewers' recommendations on filling the vacated Freimann Chair.

On his own and Luks' overall impressions of the Graduate Electrical Engineering Review: Fiore suggested that the minor divergencies between the reviewers' perceptions and those of the department stem less from any substantive differences than from differences in the practices and style characteristic of large departments in state universities as compared to those of small departments in private universities. The outside reviewers in this case do indeed come from large departments in big state schools. One of them however, as Dean Hogan pointed out, spent much of his academic career at Princeton and hence had some feel for the small departments of private universities. As to the outside reviewers' suggestion that any new senior appointment be made by way of strengthening the solid state or computer engineering section of the department, Fiore felt that, given the size of the department and its research divisions, the prime concern in filling existing vacancies would be a qualified appointee's willingness to interact constructively with people already in the department and college rather than merely reinforce one or the other of the department's existing research units.

Council Chairman Robert Gordon next called upon Prof. James Melsa, electrical engineering chairman, to comment on Fiore's summary. In response, Melsa expressed the department's appreciation of the review as a whole and, in particular, the site visitor's contribution to it. On the question of filling the vacated Freimann Chair, he suggested that unless an outstanding candidate in computer engineering can be found, consideration should focus on candidates with outstanding qualifications first and only on an area of interest. Of course, appointment in any other of the many constituent areas of graduate electrical engineering than what we now have would be both fiscally and operationally unwarranted in a department of our size and resources. Finally, Melsa found the outside reviewers stated concerns for some undergraduate complaints somewhat inappropriate in a review of a graduate program.

Motions from the floor to approve both the Fiore-Luks Report D and the Departmental Response, Report C, were unanimously passed. A copy of the Fiore-Luks Report D is appended to these minutes as Appendix 1.

#### IV. COMMENTS OF THE CHAIRMAN

The council chairman presented National Science Foundation and Bureau of Labor Statistics charts on recent and projected doctoral supply and demand in selected doctoral fields (see attached Appendix 2 and 3).

In an open discussion of the sense and reliability of these figures, it was noted that discrepancies between correlative NSF and BLS figures are in some cases likely due to more specific field labeling in the BLS chart, which differentiates physics and chemistry, than in the NSF chart which includes both under the physics label. It was further noted that the BLS chart covers broadly government, industry and other non-university doctoral employers while the NSF statistics focus more narrowly on academic employment. Having made these points, the discussion turned to the import of the charts for graduate school programs in general and the Notre Dame programs in particular.

Gordon reported that a "bumping" phenomenon recently observed in the baccalaureate job market is not observed in the graduate job market. Baccalaureate graduates increasingly are displacing or "bumping" high school graduates who, in turn, "bump" high school drop-outs in current job markets. Post-baccalaureate degree holders, on the other hand, appear to be without any "bumping" power. Employers are simply reluctant to hire them at all. As a result not only is there an accelerating rate of unemployment in most doctoral fields but more Ph.D.'s have to switch to professional or other additional non-academic training to find employment.

More than ever the recent urgings of the professional academic societies to alert doctoral aspirants of this continuing drop-off in academic job opportunities need to be honored. For some years now, our graduate departments have so alerted their applicants to the continuing unfavorable job prospects in most academic markets.

Gordon closed the discussion with the suggestion that, for the foreseeable future, our best strategy rests in limiting admissions to only the most qualified and committee applicants. He assured the council that following this strategy would in no way penalize those departments who rather than support a minimally qualified applicant would decline altogether to admit him/her. Careless use of support funds for minimally qualified applicants, on the other hand, could eventually result in reduction of support allocations in subsequent years. A department runs no risk, according to the council chairman, in admitting with support only the best applicants. When no such applicants appear support should not be offered.

The chairman announced that the Wilson Commons for graduate students are now completed and occupied. The ample new commons room is available for departmental use. A fee of \$25.00 for each use with a \$15.00 refund to users who clean up after themselves has been set. A formal dedication of the facility will be held on April 23, 1977.

The meeting adjourned at 4:30 p.m.

John J. FitzGerald  
Secretary

## Appendix 1

### Report D Review of the Graduate Department of Electrical Engineering

#### Mechanics Of The Review

The three members of the external review team, H.W. Farris of the University of Michigan, D.O. Pederson of the University of California at Berkeley, and M.E. Van Valkenburg of the University of Illinois (Urbana-Champaign) are nationally known in the disciplines of computer science, solid state electronics, and systems theory, respectively. Since these are the three areas of strength within the Electrical Engineering Department, their selection to the review team was particularly appropriate. Because they are active as scholars in these areas, they are well-acquainted with almost all of the departmental faculty at Notre Dame presently and in the recent past. For this reason, their approach to the review was highly personal, with a strong emphasis on how personalities and politics affect the operation of any department. They arrived on campus Oct. 10-12, 1976, having already studied the extensive documentation provided through OAS, so their stress was on people, their feelings and opinions, rather than on statistics.

They had been together in pairs on similar visits at other institutions; thus they had a good feeling for each others' working style. On the evening before the inspection they divided duties, and throughout the visit conducted most of their interviews individually. They preferred that no members of the internal review team be present during interviews or during the periods in which they re-grouped to collect their thoughts.

The approach of each of them was incisive with personal knowledge of individuals and electrical engineering scholarship balanced by a good administrator's appreciation of the numerical parameters which gauge the quality of a graduate program. They were impressed with the thoroughness with which OAS had organized the review, and obviously enjoyed their visit to Notre Dame.

#### Conclusions Of The External Reviewers

The individual reports of the reviewers shared a great many common conclusions. Each reviewer was impressed by the quality and energy of the faculty and of the encouragement given the department by the dean of the College of Engineering and the provost. Each remarked specifically that the present chairman of the department was doing an outstanding job, not only as a scholar in his own right, but as a leader synthesizing the talents of the faculty to produce high quality research in the areas of computers, systems and physical electronics. To a man they were concerned with the crowded, obsolete and unattractive appearance of the teaching and research laboratories, and they were pleased that the expansion and modernization of the facilities of the entire College of Engineering were imminent.

Although each of them remarked that the impending loss of Prof. James Massey would be a blow to the department, each felt that the Friemann Chair would remain a means of bringing to Notre Dame an individual who might strengthen the department in one of the three areas

of concentration. Two reviewers felt that the highest priority in the search should be for an individual in the computer area, and one felt that the interests of the chairholder should be "compatible" with one or more of the three areas of emphasis.

They were impressed with the quality of the undergraduate and graduate students, but were concerned that the number of Ph.D. students was small, with most of the candidates being foreign. They had little in the way of concrete advice to remedy this problem, but they suggested that the department advertise more aggressively and generate greater visibility through attendance at meetings.

They felt that faculty turnover was high in recent years and that the turnover was accompanied by serious hard feelings on the part of many of those who had departed and some of those who remained. One of them sensed a lack of unity and "esprit de corps" among the faculty, yet all were impressed with the energy and dedication of the faculty as individuals. They questioned the wisdom of allowing so much of Prof. Walter Gajda's energy and dedication to be expended as assistant chairman. They noted that the solid state group has had the highest rate of turnover of the three areas, and concluded that as a young, yet the senior, member of a very junior group, Professor Gajda would better spend his time developing his own reputation as a scholar and providing stability and leadership in this group. In their reports and in their discussions with the internal review team they indicated general satisfaction with the quality of scholarship and publishing within the department. One reviewer, however, tabulated the publication record of the faculty and expressed concern that so many of the papers were in the form of presentations published in conference proceedings rather than in referred journals. Moreover he noted the obvious imbalance in the number of papers published per faculty member with above half of the faculty responsible for essentially all of the publications.

#### The Departmental Response

Professor James Melsa shared the three individual reports of the reviewers with the departmental faculty and wrote his response after consultation with them.

The faculty agrees with the overwhelming majority of the reviewers' comments and conclusions, but they do feel that the reviewers' concern with faculty turnover is excessive. They consider the faculty to be a stable one and imply therefore that some sense of unity must exist. In addition, they regard the reviewers' remarks concerning the undergraduate program as being outside the scope of a graduate review, although the Undergraduate Committee is considering them.

Another and much more substantive area of disagreement between the team and the faculty is the nature of recruiting activity for the Friemann Chair. The Search Committee feels that efforts must be concentrated in finding the best candidate, independent of background. The reviewers feel that the search should be for an individual well-known in one of the three areas of strength, with the consensus being for one in the computer engineering area.

The department has already begun to respond to some of the reviewers' suggestions. They have accepted the comment that more vigorous recruitment of graduate students is necessary, and with their increased funding base, they are in a position to seek graduate applicants more aggressively than they have in the past. Further, they have diminished Professor Gajda's administrative duties so as to provide him more time for research.

#### Internal Reviewers' Comments

The unanimity with which the visitors discern the status of the department and the willingness with which the faculty has accepted and begun to act on most of the reviewers' comments simplified the task of the internal reviewers. For the most part we can but reinforce what others have said.

The systems area of the graduate program is strong. The computer area appears to be gaining strength. The solid state area has the potential of rising to parity with the other two although, since it is an experimentally-based activity, much funding is necessary for it to do so. In this vein, we feel that administrative re-arrangements within the department or addition of a chaired faculty member in the solid state area would certainly strengthen the effort in this area. However in light of the competition for funds in physical electronics and the strength of existing programs at other universities, we believe that the road to parity will be narrow, winding and up hill.

We agree with the external members that the departmental faculty is working to maintain and improve the quality of the graduate program, and that many signs indicate that they are succeeding.

We further agree with the visitors (and apparently disagree with the faculty) that the Friemann Chair search committee should concentrate on locating individuals of outstanding reputation in one of the three strong areas within this department. Moreover, we feel that the committee should make every effort to find an individual who would only not complement departmental expertise in the chosen area, but would also serve to interface departmental activity with related activity throughout the college and University. For example, a candidate in the systems area might be sounded out as to his willingness to interact with colleagues in the department as well as those in the systems disciplinary group of the college. Similarly, a candidate in the solid state area might have interest in the experiments of the superconductivity group in physics or the magnetic materials researchers in physics and metallurgy. It is our feeling that the ideal candidate would be an independent scholar, yet be an individual of such interest and talent that he or she would help catalyze activity in the given area not only within the department but across departmental lines.

The internal reviewers express their thanks to Prof. John FitzGerald for the highly professional way in which he organized the review and to their colleagues in electrical engineering for the openness and cordiality which made the activity a worthwhile experience of great value, we believe, to the department and the University.

Respectfully submitted,

Kraemer D. Luks  
Division Representative

Nicholas F. Fiore  
Chairman

## Appendix 2

### NSF: Supply and Demand Selected Doctoral Fields

	<u>1974 Supply</u>	<u>1985 Supply</u>	<u>1985 Demand</u>	<u>Surplus</u>
Physics	65,300	85,202	76,000	+ 9,200
Mathematics	12,900	21,600	16,000	+ 5,600
Life Science	56,700	92,100	85,000	+ 7,100
Social Science	52,500	112,700	71,000	+ 41,700
Engineering	34,000	63,300	45,000	+ 18,300
Total	221,400	374,900	293,000	+ 81,900
Dept. Labor Total	249,100	415,000	339,100	+ 75,800

## Appendix 3

### BLS: 1977—Total Employment and Projected Requirements Doctorates

	<u>Est. 1974 Labor Force</u>	<u>Projected 1985 Requirements</u>	<u>Openings 1974-85</u>	<u>New Supply 1974-85</u>	<u>Difference</u>
Engineering	35,000	55,700	30,300	29,100	- 1,200
Chemistry	37,700	43,300	14,200	18,000	- 3,800
Physics	24,700	25,900	6,600	12,100	- 5,500
Life Science	60,000	78,900	33,600	59,500	- 25,900
Mathematics	14,000	16,600	5,900	12,400	- 6,500
Social Science	45,300	55,400	20,900	50,700	- 29,800
Psychology	26,300	46,200	27,500	38,100	- 10,600
Arts and Humanities	46,600	45,900	9,100	52,600	- 43,400
Education	68,700	87,400	35,200	115,400	- 80,200
Business & Commerce	6,500	6,800	1,600	13,300	- 11,700
Other	7,500	9,300	3,600	13,300	- 9,700
All Disciplines	378,400	488,600	201,900	422,900	- 221,000



# Faculty Senate Journal

## March 24, 1977

At 7:34 p.m. the chairman, Prof. James Danehy, called the meeting to order in Room 202 of the Center for Continuing Education and requested Prof. Robert Anthony to offer a prayer. The Journal for Feb. 15 was approved, and Prof. Bobby Farrow announced that there was \$1,114 remaining in the treasury, expenditures for February having been \$197.

In his chairman's report, Danehy stated that the senate's motions to extend its membership to representatives from the ROTC and the retired faculty had been passed by the Academic Council. Further, the provost had reported that the motions had also been ratified by the Executive Committee of the Board of Trustees and would therefore be incorporated in the Academic Manual.

Speaking for the Committee on Administration, Prof. James Robinson introduced the following resolution:

The Faculty Senate requests that the University's Budget Priorities Committee provide the senate with a breakdown of average faculty salaries by rank, for the teaching and research faculty of each college, for the library faculty, for the special research faculty and for the special professional faculty. The senate further requests a breakdown of salaries within each college when there occurs a significant variance between the scale in one of its divisions and that in another, provided such a disclosure does not imperil the confidentiality of a department's budget allocation or of an individual's salary.

According to a statement written by Prof. James Dougherty, the rationale for this proposal was that the members of the University's several faculties, who might wish to express opinions concerning budgetary decisions, need information to give solid ground to such opinions; that breakdowns of salary by rank and sex are "not entirely useful discriminations, since it is generally believed that salary scales are further differentiated according to fields and disciplines within the University"; that a sound budgetary policy "can only be formulated when there is knowledge of how well the distribution of the present budget reflects Notre Dame's needs and priorities"; and that it would be desirable not only to compare mean salaries at Notre Dame with those at other universities, but also "to compare different salary scales within the institution" and "the scale in a particular field or discipline...with that prevailing nationwide in the same area."

Robinson explained that the senate had made such proposals since 1968-69 but that the administration had always rejected them. Nonetheless, he argued, this measure might eliminate some widespread misconceptions, as differences in salary scales are perhaps less extreme than is commonly thought, and might also aid individual faculty members, especially those considering positions elsewhere. Dougherty, however, emphasized that the main purpose of the resolution was to enable the senate and the faculty to make useful contributions to the Budget Priorities Committee.

Prof. Paul Kenney argued that the figures requested in the proposal would be useful only if they were accompanied by information concerning salaries at other universities; otherwise, he said, they might "feed paranoia, not cure it." To this, Robinson responded that the figures on Notre Dame salaries would be valuable in themselves and that data for other institutions might be collected by the senate. Prof. Thomas Patrick noted that at state universities such information is public knowledge. The resolution was passed by a vote of 18-10, with seven abstentions, and Danehy said that he would communicate it to the Budget Priorities Committee.

On behalf of the Faculty Affairs Committee, Prof. Irwin Press introduced six proposed amendments to the Faculty Handbook regarding mechanisms of appointment and promotion. If passed, he said, they would be sent to the Academic Council and placed on its agenda. He then moved the following addition to the handbook (Article III, Section 4, subsection (a), paragraph (1):

"The formal procedure for determining recommendations is initiated by the chairman of the department, acting with his departmental committee on appointments and promotions." (A faculty member under consideration for reappointment or promotion must be so notified by the chairman in advance of the evaluation process and invited to submit any statement or evidence on his own behalf which might be of use to the committee in its deliberations.)

Press explained that the rationale for this amendment was to prevent "sandbagging" and to protect faculty rights. Prof. John Lyon asked whether it would also prevent promotions without faculty members' knowledge, to which Press replied "so be it"; and in response to another query from Lyon, he said that this measure was not designed to strengthen committees on appointments and promotions (CAPs) as against the administration but rather to insure the rights of the individual. Observing that faculty are asked to complete a questionnaire before being promoted, Prof. Ronald Weber inquired whether this might not constitute sufficient notice. Press, however, replied that he knew of persons considered without their knowledge, Prof. Arthur Quigley adding that the use of such a questionnaire was not required by the handbook. At worst, then, conceded Weber, the amendment would be redundant. Lyon said that a CAP might wish to obtain an outside evaluation of a faculty members' published work and that it might be awkward to inform the person in question if the judgment were negative. But Prof. Raymond Schoen and Robinson argued that if the person were to improve his work, he ought to be so informed. The motion was passed unanimously.

Press then moved the adoption of the second amendment, a replacement of an item in the same paragraph:

"The chairman of the department submits his written recommendations, along with the departmental committee's own report of its deliberations and recommendations to the dean of the college..."

(replaces "a written report of the deliberations and recommendations of the committee")

The sense of this proposal, said Press, was to insure that a report be submitted by the CAP itself rather than by the department chairman. The motion was passed unanimously.

The third amendment proposed by Press replaced an item in the same paragraph:

"If the dean disagrees with the recommendation of a departmental committee..."

(replaces "If the dean anticipates disagreement with...")

Prof. Norman Haaser commented that the purpose of the original wording was to prevent such a disagreement, but he and Press also noted the ambiguity of this phrasing. The motion was passed unanimously.

The fourth amendment was an addition to the second paragraph of the same subsection:

If the faculty member is dissatisfied with the reasons for the negative decision, or believes that the departmental committee on appointments and promotions did not give adequate consideration to his merits and qualifications, he may petition for a hearing by an ad hoc review committee of his college. Upon receipt of a written request from the faculty member, the College Council shall elect a review committee of five tenured members of its teaching and research faculty to consider the appeal. No member of the petitioner's department may serve. The petition shall set forth in detail the nature of the grievance, and shall contain any factual or other data which the petitioner deems pertinent to his case. The review committee will have the right to decide whether or not the case merits further investigation. If it decides not to proceed further, the committee will so notify the petitioner, his departmental chairman and A and P Committee, along with the dean and provost, and provide an explanation for its decision. If the review committee agrees to investigate the matter, it must do so within a reasonably short time period, and deliver an opinion and rationale to the petitioner, his chairman and departmental A and P Committee, the dean and provost.

There were a number of objections raised against this proposal. Lyon argued that if an instructor's case had to be reviewed, a department might not have time to hire a replacement; but Schoen contended that it must first be determined whether such a replacement is necessary. Prof. Thomas Kapacinskas inquired whether the review committee could enforce its decision if it found that an error had been made, to which Press replied that it could only report this to the administration; a stronger measure, he added, would probably entail collective bargaining. Lyon, Kenney, and Anthony contended that the amendment might remove the power to make decisions from those faculty best qualified to do so; and Press accepted Robinson's friendly amendment to delete the clause, "is dissatisfied with the reasons for the negative decision," and to substitute the wording, "If, upon receiving a negative decision, the faculty member believes..."

Profs. Julian Pleasants, Kenneth Goodpaster, and Kenney argued that a distinction should be made between a faculty member's professional qualifications, which should be determined by the CAP, and his procedural rights, which might be insured by a review committee; but

Schoen said that the appeals committee should also have the power to review the criteria used by the CAP. Press then accepted another friendly amendment from Quigley, deleting the words, "did not give adequate consideration to his merits and qualifications," and substituting the clause, "followed inadequate procedures or applied inadequate criteria in reaching its decision." Schoen observed that this provision would then apply only to those cases in which the CAP might be at fault; and after further discussion, Press accepted the following amendment proposed by Farrow:

If, upon receiving a negative decision, the faculty member believes that inadequate procedures or inadequate criteria were applied in the decision process for appointment, tenure, or promotion, he may petition for a hearing by an ad hoc review committee of his college. (Upon receipt (etc.).)

Goodpaster and Lyon argued that one member of the appeals committee should be from the petitioner's own department, but Press and others replied that this would endanger the objectivity of the review. In response to a query from Katharina Blackstead, Press said that the provision applied only to the teaching and research faculty, not to the library faculty. The amendment was passed with four negative votes and four abstentions.

The fifth amendment was an addition to the third paragraph of the same subsection:

(If the committee disagrees with the action taken by the chairman, dean, provost or president in regard to appointments and promotions, it may petition for a review of the matter by an ad hoc committee of its college. Upon receipt of a written request from the departmental committee, the College Council shall elect a review committee of five tenured members of its teaching and research faculty to consider the appeal. No member of the petitioning department may sit on this committee. The petition shall set forth in detail the nature of the grievance, and shall contain any factual or other data deemed pertinent to the case. The review committee will decide whether or not the case merits further investigation. If the review committee decides not to proceed further, it will so notify and explain the reasons for its decision to the petitioning departmental committee, the departmental chairman, the dean and provost. If the review committee decides to investigate the matter, it must do so within a reasonably short period of time, and deliver an opinion and rationale to the petitioning committee, the departmental chairman, dean and provost.)

Prof. Robert Rodes inquired whether the redundancy between this and the previous amendment might be eliminated, but Press said that such a change might create ambiguity. The amendment was passed with four negative votes and two abstentions.

The sixth amendment was an addition to the end of the first paragraph of Article II, section 9:

(The department, for its parts, shall nominate one or more of its members for the position of chairman. The dean and provost shall be apprised of the nominees, and either may place in nomination the name of an additional faculty member, along with a statement describing the nominee's special qualifications for the chair. The dean and provost also have the right to request that the department look outside the University for additional candidates, and must specify the reasons for this request. Following the identification of all candidates for the position, the department as a whole shall vote for its chairman from among the nominees. The results of the vote shall be made known to the department and to the dean of the college. If the president appoints a chairman other than the individual receiving the majority vote of the department, he must provide reasons to the department for so doing.)

Rodes proposed that the phrase "of its members" be changed to "persons," and that "faculty member" likewise be changed to "person," so that the department, dean and provost might nominate candidates from outside the University. Press accepted these as friendly amendments. Lyon objected to the proposal on the grounds that a departmental vote, if published, might cause the politicization of the faculty, Rodes adding that it might also interfere with the effectiveness of the newly appointed chairman; but Press argued that the department and its chairman ought to "know what's going on." Prof. William Biles said that there should be a provision for the chairman to be elected by a majority of the department, to which Press replied that the measure did not preclude run-off elections. The amendment was passed with three negative votes and three abstentions.

The meeting was recessed at 8:56 p.m. and reconvened at 9:06 p.m.

Speaking for the Committee on Student Affairs, Prof. Claude Pomerleau introduced a measure to extend the pass-fail deadline from 10 to 20 class days, a proposal made to the committee by Robin Lavender on behalf of the student members of the Academic Council. The resolution stated that whereas the present pass-fail arrangement does not encourage the student to

explore areas outside his field of study, and whereas such an extension might also allow him to make a more realistic judgment concerning the nature and quality of the course in question, therefore, the committee has no objection to

1. amending the Academic Code so that the deadline will be listed as a definite number of class days instead of "at the time of registration."
2. extending the registrar's current pass-fail deadline of 10 class days to 20 class days.

We recommend that this be communicated to the Academic Council.

In support of this proposal, Pomerleau also introduced some figures showing that the pass-fail option has been used in large measure by students in engineering, science and business who are taking courses outside their college.

Rodes questioned whether the current pass-fail option should be thus encouraged as it tends to lower academic standards; and Prof. Sarah Daugherty, agreeing, added that the wording of the proposal was weak and that the measure might promote grade inflation, a problem that the senate had previously attempted to solve. Weber then suggested that the resolution be amended as follows: "Therefore, the committee endorses 1. The amendment... and 2. The extension..." Capt. King Pfeiffer observed that "committee" should be changed to "senate"; and these were accepted as friendly amendments.

On the subject of grade inflation, Schoen said that the pass-fail option could hurt a student's average but not help it; Quigley, however, noted that some students are able to convert a "D" grade to a "P." Profs. Don Vogl and Weber defended the measure on the grounds that students should be given more time to gain a sense of the course and that they should receive the benefit of the doubt; Anthony and Rodes objected to it on the grounds that current standards are sufficiently liberal and that students often misuse the option. After Quigley moved to divide the question, part (1) of the resolution was passed with no negative votes and one abstention, and part (2) was passed with six negative votes and three abstentions.

Pomerleau then spoke on another topic, the role of the faculty in the area of student life and residentiality. As an example, he cited the hall fellows program, which might be made more active. Prof. Rufus Rauch and Biles endorsed Pomerleau's remarks, and the senate supported them by an informal vote of confidence.

On behalf of the ad hoc committee on examination scheduling policies, Biles stated that 299 students and 278 faculty had returned questionnaires concerning the issue. The committee, he said, was evaluating these responses and would present a report at the next senate meeting.

Prof. Phillip Helman announced that the Special Professional Faculty had held a meeting to discuss the "vague and indirect" manner in which its status is described in the Academic Manual. A committee was formed to recommend changes in the manual (article 3, Section 3, subsection (d)), and at a second meeting, the faculty decided to request the senate to endorse these amendments and to refer them to the Academic Council. After some discussion, Helman accepted the suggestion of Prof. John Lucey and Danehy that the proposals be referred to the Faculty Affairs Committee for further consideration. He also accepted Rode's suggestion that he consult the University counsel, inasmuch as provisions for contracts are legally binding.

The senate then met as a Committee of the Whole to discuss a motion made by Rauch and seconded by Quigley. The discussion being concluded, Farrow moved

that a study of the question of retirement be conducted by the Faculty Affairs Committee, the study to be initiated before the close of the current semester.

The motion was seconded by Lyon and passed by a vote of 11-5, with 13 abstentions.

The meeting was adjourned at 10:18 p.m.

Those absent but not excused: Hafiz Atassi, aerospace and mechanical engineering; Reginald Bain, speech and drama; Paul Bosco, modern and classical languages; Rudolph Bottei, chemistry; Roberta Chesnut, theology; John Connaughton, law; Michael Francis, government and international studies; Karl Kronstein, mathematics; Richard Lamanna, sociology and anthropology; Sheridan McCabe, psychology and counseling center; Carole Moore, history; Morris Wagner, microbiology.

Respectfully submitted,

Sara B. Daugherty  
Secretary



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