

'77-'78

notre dame report

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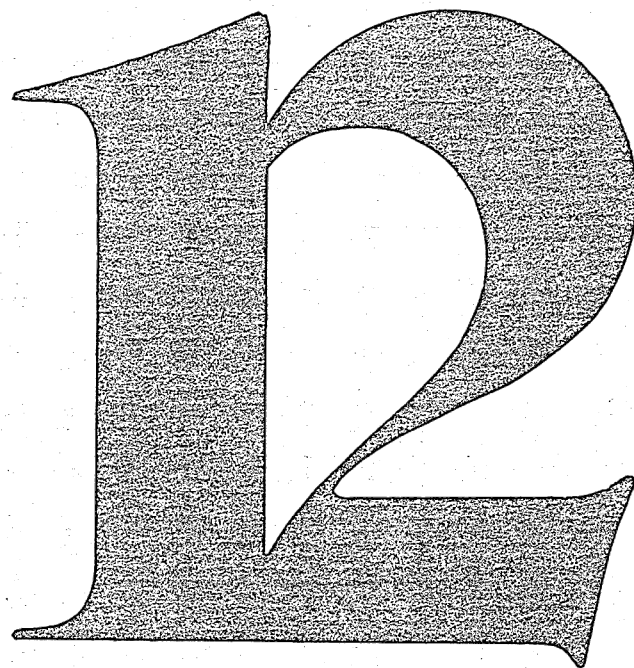
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the university

Barbiturates Found to Spread Tumors

Researchers at Notre Dame's Lobund Laboratory have found evidence that barbiturates accelerate the growth and spread of tumors. Barbiturates are commonly used as sedatives, hypnotics and anti-spasmodics. The research team--Morris Pollard, director of Lobund and chairman and professor of microbiology, Gary R. Burleson, C.F. Chang and Phyllis H. Luckert.--reports in the same studies that anesthetics chloroform and halothane also accelerated tumor spread, and the pattern of spread was retarded by cyclophosphamide, a chemotherapeutic agent; aspirin; indomethacin, an anti-inflammatory agent, and *Corynebacterium parvum*, an immunostimulant. The results indicate that the agents studied influence the host defense mechanisms, which may involve a complex of mechanisms of the cancer cell also.

University Boycott Ended

With Union Leader Cesar Chavez ending the United Farm Workers' nationwide boycott against non-UFW picked lettuce and table grapes, Notre Dame has suspended its own seven-year boycott, announced Rev. Theodore M. Hesburgh, C.S.C., president of the University. The University has purchased only UFW lettuce and grapes since 77 per cent of students voting in an April, 1971, referendum supported Chavez's call for a boycott. Campus Ministry will offer a liturgy of thanksgiving for success of the boycott.



'Campaign for ND' Gifts

--A professorship in management will be established at the University of Notre Dame by the Schurz Communications Foundation, Inc. in honor of Franklin D. Schurz, veteran South Bend editor, publisher and civic leader, it was announced by Rev. Theodore M. Hesburgh, C.S.C., University president. Schurz served on Notre Dame's Board of Trustees from 1964 to 1971 and continues as a trustee emeritus of the University. Bro. Leo Ryan, C.S.V., dean of the College of Business Administration, said that a search committee is being formed to seek senior scholar candidates in the field of management who has outstanding credentials in teaching and research for the Schurz professorship.

A South Bend native, Schurz was the South Bend Tribune's editor and publisher from 1954 to 1972, director and first vice president of the Associated Press, director of the American Newspaper Publishers Association and first president of its Research Institute, and president of the Inland Press Association. He received an honorary Doctor of Laws degree from Notre Dame in 1972.

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Special Notice

Many mailings and memos sent to the entire faculty or a large part of it by any University unit can be eliminated if Notre Dame Report is used. By timing the release of information with Report deadlines, the entire Notre Dame faculty and professional community can be reached. Please send releases to Notre Dame Report, 415 Administration Building.

Memorial Library Hours Midsemester, Easter Holidays

Friday, March 17-Sunday, March 26, 1978

1st and 2nd floors

Open: Monday - Saturday, 8 a.m. - 5 p.m.
Closed: Sunday

4th through 13th floors (Tower)

Open: Monday - Saturday, 8 a.m. - 10 p.m.
Sunday, 1 - 10 p.m.

The Memorial Library Building will be closed:
March 24 (Good Friday)
March 26 (Easter Sunday)

The Research Libraries will be open Monday through Friday, 8 a.m. - noon, 1 - 5 p.m.
They will be closed on March 24 (Good Friday).

All libraries will return to their regular schedules on Monday, March 27.

Publishes First Novel

Notre Dame Press has published its first novel and the first English translation of Romanian author Mircea Eliade's masterwork in fiction, The Forbidden Forest, the first of his novels to be published in English. Among Eliade's well-known studies in the history of religions are The Myth of the Eternal Return, Images and Symbols, Myth and Reality and From Primitives to Zen.

Foreign Language Exam

The reading foreign language examination for graduate students will be held on Tuesday, April 18, 1978 in Room 204 O'Shaughnessy Hall from 7-9 p.m. The examination in each language will consist of two parts: a general text to be translated by all students; and a passage in the student's field of study. Dictionaries may be used for both parts of the test.

All students should register for the examination they wish to take in the office of the Department of Modern and Classical Languages, Room 304 O'Shaughnessy Hall by Tuesday, April 4. Graduate students presently enrolled in the 500 foreign language reading courses are expected to take the reading examination at the end of the semester.

Art Gallery Exhibits

European Masterworks, including painting and sculptures from the 16th to 19th centuries, are presently being exhibited in the West Gallery, of Notre Dame's Art gallery. Recent Sculpture by Moira Marti Geoffrion incorporating textiles with more tradition of sculpture media, is the title of an East Gallery exhibition. Also on exhibition is African Traditional Art, a vivid collection of masks, fetishes, textiles and other artifacts. Galleries are open weekdays from 10 a.m. to 5 p.m. and 1 to 5 p.m. weekends.

faculty notes

Appointments

Father Hesburgh has asked Thomas Blantz, C.S.C., to serve on the Provost Search Committee in place of David Burrell, C.S.C., who has resigned from the committee. Father Blantz's appointment was effective Feb. 2. The full committee as of Feb. 2, 1978 consists of

Thomas Blantz, Frederick Crosson, Fernand Dutille, Philip Gleason, Timothy O'Meara (chairman) and Kenneth Ricci.

The committee is expected to complete its work and submit its recommendations to Father Hesburgh during the month of March.

Honors

Teoman Ariman, associate professor of aerospace and mechanical engineering, has been named to the International Scientific Committee on Structural Mechanics in Reactor Technology. He has also been appointed an associate editor for the Journal of Pressure Vessel Technology, a publication of the American Society of Mechanical Engineers.

James Gaertner, assistant professor of accountancy, was appointed a member of the Education Committee of the American Accounting Association's International Accounting Section.

Robert E. Gordon, vice president for advanced studies, has been elected president of the Board of Trustees of BioSciences Information Service (BIOSIS), the world's largest English-language information service reporting published research in the life sciences, effective Jan. 1.

Ambrose M. Richardson, chairman and professor of architecture, was chosen by South Bend Mayor Peter Nemeth to serve as advisor to the Architect Selection Committee for the Century Mall Parking Garage Project.

Larry L. Thomas, assistant professor of philosophy, has been awarded a Harvard University Andrew W. Mellon Faculty Fellowship in the Humanities for the 1978-79 academic year.

Activities

William B. Berry, assistant dean of the College of Engineering, served on an advisory panel meeting Jan. 22-24 in Washington, D.C. to evaluate proposals submitted to the National Science Foundation's Comprehensive Assistance to Undergraduate Science Education Program.

John T. Cacioppo, assistant professor of psychology, along with Richard Petty, presented the paper "Heart Rate and Cognitive Performance" at the annual meeting of the American Association for the Advancement of Science, Washington, D.C., Feb. 15.

Carvel Collins, professor emeritus of English, presented two public talks in the Galvin Life Science Center: "Literary Biography: How (and How Not)", Feb. 7, and "Literary Biography: Why (Negative and Positive Uses)," Feb. 8.

James P. Danehy, professor emeritus of chemistry, discussed "Retirement in Academe: Changing Perspectives" on Feb. 13 in Haggard Hall.

Sperry E. Darden, professor of physics, delivered the paper "Deuteron Breakup on ^4He " at the First Nuclear Physics Symposium at Oaxtepec, held in Oaxtepec, Mexico, Jan. 2-5.

Astriak L. Gabriel, director of the Folsom Ambrosiana Collection, was chairman of the session "The Art of the Celtic Peoples" at the Canada and the Celtic Consciousness symposium, University of Toronto, Feb. 7.

James Gaertner, assistant professor of accountancy, gave a talk entitled "Business in Perspective--A Look into the 1980s," to the district managers of Indiana Bell at the Notre Dame CCE on Jan. 10, and a talk entitled "The Economic Impact of Accounting Standards" presented to Beta Alpha Psi at Notre Dame on Nov. 11. He was an invited discussant at the Southeastern Region American Institute of Decision Sciences Conference held in Jacksonville, Fla. on Feb. 15-17, discussing the paper "Fixed Cost Allocation Using Non Linear Programming Techniques."

Joseph C. Hogan, dean of the College of Engineering, was a member of a panel at the 1978 College Industry Education Conference sponsored by the American Society for Engineering Education on the seminar "Is Engineering a Good Career Choice?" on Jan. 24-27 in San Diego.

Lloyd H. Ketchum, assistant professor of civil engineering, served on an advisory panel meeting Jan. 22-24 in Washington, D.C. to evaluate proposals submitted to the National Science Foundation's Comprehensive Assistance to Undergraduate Science Education Program.

Charles F. Kulpa, Jr., assistant professor of microbiology, presented a seminar entitled "Artificial Membranes (Liposomes) as Carriers of a Variety of Biologically Active Agents," at the Northwest Center for Medical Education of Indiana University in Gary, Ind., Feb. 10.

John R. Lloyd, associate professor of aerospace and mechanical engineering, presented an invited lecture "Fire and Smoke Spread in Rooms, Corridors and Buildings" to the Department of Mechanical Engineering, University of Kentucky, Lexington, on Feb. 9.

John R. Malone, professor of marketing, gave the presentation "Capital Equipment Acquisition Economics" at a meeting of the Purchasing Management Association of South Bend on Feb. 8.

John Matthias, associate professor of English, had a public reading from his "East Anglian Poems" by Peter Pears at a program of music and poetry at Aldeburgh, Suffolk, Jan. 1.

Rev. Ernan McMullin, professor of philosophy, gave the annual N.R. Hanson Lecture at Indiana University on Feb. 3: "Structural Explanations in the Natural Sciences." He also lectured on "The Role of Models in Scientific Inquiry" at a symposium under the same title at the annual meeting of The American Association for the Advancement of Science in Washington, D.C., Feb. 13 and served as chairman of the History and Philosophy of Science section.

Timothy O'Meara, Kenna professor of mathematics, delivered nine lectures entitled "Symplectic Groups" to the Geometry Seminar, and one lecture entitled "The Isomorphism Theory of the Classical Groups, 1928 to 1978" to the Mathematics Colloquium, of the University of Toronto during the month of January.

Henning Paul, assistant professional specialist in the Radiation Laboratory, presented a paper entitled "Radical Kinetics and Chemically Induced Electron Polarization by Modulation ESR Spectroscopy" at the IBM Research Laboratory, San Jose, Calif., on Feb. 6, and at Argonne National Laboratory, Argonne, Ill., on Feb. 14.

Robert Pitts, assistant professor of marketing, gave the presentation "Consumer Psychology and Consumer Satisfaction" to the Consumer Affairs Council of Miles Lab., Inc., at the Notre Dame CCE in December.

Irwin Press, associate professor of sociology and anthropology, was an invited participant in a special research symposium of the Institute on Human Values in Medicine, Philadelphia, Feb. 22-25. He reported on "Anthropological Contributions to Current Arguments in the Philosophy of Medicine."

Boleslaw B. Szczesniak, professor emeritus of history, gave three lectures at the University of Warsaw, Dec. 14-20: "The Shinto Religious Dances;" "The Elements of Mythological Nature in the Traditional Storytellers," and "On The Reforms of Prince Shotoku Taishi d. 623."

Dolores W. Tantoco, librarian, gave a talk on "The Conflicts in the Implementation of the Revised Anglo-American Cataloging Rules Which Affect the Philippine Publications," University of the Philippines Libraries, Diliman, Quezon City, Philippines, on Jan. 3. She was also invited to the joint meeting of the Association of Special Libraries of the Philippines and the Philippine Association of Teachers of Library Science, held on Jan. 21 at Manila Mandarin, Makati, Metro-Manila, Philippines.

Ken Thompson, instructor in management, was a discussant at the Southeastern Region American Institute for Decision Sciences meetings held in Jacksonville, Fla. on Feb. 15.

Daniel H. Winicur, associate professor of chemistry, presented a lecture entitled "Studies in Translational to Rotational Energy Transfer" at the University of Illinois, Chicago Circle on Feb. 14.

Office of Advanced Studies

Special Notice

Due date for proposals in Office of Advanced Studies (OAS), Division of Research and Sponsored Programs (DRSP).

Principal investigators are reminded once again that proposals are due in OAS, DRSP at least seven (7) calendar days prior to the sponsor's due date or postmark date. The earlier the better, for if revisions are deemed necessary, the current situation with the mail leaves scant time to satisfy sponsor due date requirements. Late proposals will be returned to principal investigators with a note through the offices of the appropriate deans.

Notes for Principal Investigators

Undergraduate and Graduate Payroll Jobs

In budgets for proposals, principal investigators may, on occasion, wish to use hourly rates for undergraduates and graduates. Until further notice, the following rates will apply:

1. Undergraduate payroll jobs:
 - a. Effective July 1, 1978, basic - \$2.50/hr.
skilled - \$3.00/hr.
 - b. Effective Jan. 1, 1979, basic - \$2.70/hr.
skilled - \$3.20/hr.
2. Undergraduate credit jobs: \$840/yr. for full assignment of 12 hours/week.
3. Graduate payroll jobs:
 - a. Effective July 1, 1978, basic - \$2.60/hr.
skilled - \$3.25/hr.
 - b. Effective Jan. 1, 1979, basic - \$2.80/hr.
skilled - \$3.45/hr.
4. Graduate assistant stipends: As determined by the Vice President, Advanced Studies.

These rates are aside from and should not be confused with research assistant stipend schedules established by each college.

The Personnel Department is responsible to determine if the undergraduate rate is to be skilled rather than unskilled. The undergraduate in a skilled job will be an unusual situation. Rates for students in nonacademic areas may vary from the above.

The Vice President, Advanced Studies, in consultation with the appropriate Dean, determines if the graduate student is to receive the skilled rather than the unskilled rate.

Addressing Proposals to NSF

Processing of proposals to the National Science Foundation will be expedited by specifying, when it is known, the program or division for which the proposal is intended. Proposals should be addressed to Central Processing Section; Attn: For Consideration by _____ Program (Division); NSF, Wash., D.C. 20550.

The intended program or division also should be indicated on the cover sheet. Appendix VII of Grants for Scientific Research (NSF 76-38) lists the program and divisions. If the program is known, specify it. If unknown, specify the division. If neither is known, the proposal will be accepted, but processing and routing will not be as fast. Indication of an organizational unit does not constitute assignment; formal assignments are made by NSF program staff.

This notice is intended to expedite processing and does not change past procedures for submitting proposals to NSF.

Protection of Human Subjects

Section 4.c of the University's policy statement on the protection of human subjects specifies that when a summary of the basic elements of informed consent are presented verbally to a potential subject, or to the subject's legally authorized representative, the consent form is to be signed by the subject or the legally authorized representative and "auditor witness."

Principal investigators are reminded that such auditor witnesses are to be used unless there are good reasons for not using them. Reasons for not using an auditor witness should be explained in the description of the project submitted to the University Committee on the Protection of Human Subjects (UCPHS).

Written copies of the summary statement to be presented verbally are to accompany the consent form when submitted to the UCPHS for review and approval.

Information Circulars

National Science Foundation University-Industry Cooperative Research

No. FY78-137

Funding of university-industry cooperative research, aimed at both basic and applied investigations, will be given special attention in the competition for research support. University-industry cooperative projects will be encouraged throughout NSF's programs.

Cooperative efforts will require the active participation by both university and industry. In most instances, it is expected that the industrial firm or possibly groups of firms would contribute funds, personnel or services reflecting their interest in the research. This kind of activity can be made attractive to small business by reducing the amount of cost-sharing involved.

Jointly prepared proposals from cooperating institutions will compete for funds with regular proposals but such cooperative projects would be established as a factor to be considered in the award decision process.

Possible barriers to joint university-industry research and mechanisms to overcome such barriers will be examined by NSF through existing advisory bodies and special workshops.

National Science Foundation Research in Science Education

No. FY78-138

In its second year of operation, the Research in Science Education (RISE) Program expects to provide up to \$2.2 million for research projects in science education.

Eligible projects may deal with the physical, biological and social sciences, mathematics, engineering, technology, the history and philosophy of science, or may involve combinations of these disciplines. However, the practice aspects of technical, clinical, health, social or business fields are excluded. Examples of topics outside the program are medicine, nursing, clinical psychology, social work, business administration and the arts and humanities.

Projects may be addressed to any level of science education, from pre-college through graduate science studies.

Proposals are invited in the following categories:

Category I. Research Evaluation and Synthesis

These awards are intended to make the results of existing research related to science education more accessible to researchers and policymakers. Projects should include: 1) An evaluation of a number of pieces of existing research in a coherent area; 2) a synthesis of the theoretical propositions which can be considered to have been established on the basis of that research; and 3) a statement of further research needs.

While projects in any area of research related to science education will be considered, the Foundation is especially interested in the problems of motivation and learning in science by early adolescents (10-15 year olds) and the development and validation of new approaches to measurement and assessment in science education.

Category II. Research Activities

A limited number of original research efforts will be supported. Projects in any area relevant to science education will be considered, but the Foundation is especially interested in:

- * Motivation and learning in science among 10-15 year olds.
- * Development and testing of new measures of effectiveness in science education. Both cognitive and affective measures are of interest. Some priority will be placed on efforts to develop measures to assess the effectiveness of science education programs directed to the general public, and to in-school populations consisting of nonscience majors.
- * Studies of the development of attitudes toward science among students, with special emphasis on minorities and women.
- * Research on uses of microcomputers and related technology in science education or science education research.

National Science Foundation Program for Science Resources

No. FY78-139

The Division of Science Resources Studies (SRS) of the National Science Foundation (NSF) has combined several activities under its Program for Science Resources Analyses. These activities are:

- a) Analytical Awards: Science Resources Data Bases and Related Studies
- b) Scientific and Technical Manpower Forecasting Activities
- c) Quantitative Studies of Outputs from Science and Technology

This program seeks:

- a) Development of in-depth and issue-oriented analyses of scientific and technical personnel and/or science and technology funding and performance using SRS and related data.
- b) Development of new or improved techniques for analyzing science resources data and their relationships with other variables.
- c) Development of forecasts and forecasting techniques for (1) demand and supply of scientific and technical personnel, and (2) R&D expenditures.
- d) Development of new indicators measuring outputs of scientific and technological activity, particularly, though not exclusively, indicators of technological innovation.
- e) Development of modeling techniques that describe key interactions among important components of the economic system as they relate to science and technology.

SRS maintains data bases on: 1) the characteristics, utilization and supply of scientific and technical personnel, and 2) the funding of scientific and technological activities with emphasis on research and development in four economic sectors--government, industry, higher education and other nonprofit institutions. These data exist in published form and/or data tapes.

The Manpower Characteristics Data System covers such aspects of scientific and technical personnel as sex, age, race, degree level, employment status, field of science, primary work activity, type of employer, geographic location, etc. The elements of this system are:

- a) The National Sample of Scientists and Engineers, which biennially follows a sample of 50,000 scientists and engineers from the 1970 Decennial Census.

- b) The Characteristics of Doctoral Scientists and Engineers, which since 1973 has biennially sampled such personnel.
- c) New Entrants to Science and Engineering, which samples new scientists and engineers. This series has data back to 1970.
- d) The National Register of Scientific and Technical Personnel which provides data on the background and characteristics of scientists. Data are available biennially from 1960 to 1970.

The academic, nonprofit, government and private industry sectors provide data on scientific and technical personnel utilization (employment). The continuity, type and level of detail vary greatly by sector. For example, universities provide headcounts by field of science, full- and part-time status, sex, highest degree earned and major work activity. Industry provides type, size and location of industry for manpower, R&D funding and full-time-equivalent R&D scientists and engineers.

The SRS data base on scientist and engineer supply covers annual graduate enrollments and provides information on full- and part-time status, sex, source and type of support, field of science and citizenship. Postdoctoral employment data are provided by field of science and source of support. NSF also funds the Doctorate Records File at the National Academy of Sciences which provides data on field of science, sex, race, marital status, citizenship, planned employment and time from bachelor's degree to doctorate.

Science resource funding data are collected and maintained for each of the four major sectors of the economy--government (including Federal, State and local), industry, higher education and other nonprofit institutions (such as independent research institutes). Trend data are available covering 25 years of national R&D expenditures by performer, source of funds and character of work (basic research, applied research and development). In addition, institutional characteristics data on R&D and selected other scientific and engineering activities within the four economic sectors are also available. The amount of data, period covered, level of detail, format and type of data files (e.g., tabular, computer tapes, microfiche, etc.) vary somewhat from sector to sector.

Proposals may be submitted at any time but those received after April 7, 1978 will probably not be considered for funding until fiscal year 1979.

Pharmaceutical Manufacturers Association Doctoral Dissertation Research Grants

No. FY78-140

Purpose:

The purpose of the Pharmaceutical Manufacturers Association's Doctoral Dissertation Research Grants is to encourage original research in areas relating to the socioeconomic aspects of the health care industry, including the economics of the prescription pharmaceutical and professional medical devices and diagnostics products industries.

Stipend:

Maximum stipend is \$2,500 to be paid in \$500 increments over a period normally not to exceed 24 months, beginning September 1 in the initial year.

Eligibility:

Doctoral candidates pursuing a degree in economics or related social and administrative sciences may apply. Applicants must have: Completed all course work leading to a doctoral degree, passed all qualifying examinations and obtained faculty approval of the dissertation proposal.

Applications:

Application should be submitted with the following information: A resume; dissertation outline and plans for completion; letters of support from faculty advisor and department chairman or another faculty member where the chairman is also advisor.

Deadline:

July 15, 1978.

Submit materials to:

Mr. Howard L. Binkley, Vice President
Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

New York State Senate Senate Legislative Fellows Program

No. FY78-141

Program:

The New York State Senate Legislative Fellows Program is designed to provide talented graduate students a firsthand knowledge of New York State government. The Fellows will spend an entire year in Albany during which they will be carefully trained and then immersed in the staff work of the Legislature.

Eligibility:

- * Be a matriculated student in a recognized graduate program.
- * Be a resident of New York State.
- * Have a strong orientation toward public service.
- * Possess an outstanding academic record.
- * Show evidence of strong research and communication skills.

How to Apply:

- * An application form (available from the Office of Advanced Studies, Division of Research and Sponsored Programs).
- * Transcripts of undergraduate and graduate coursework.
- * Two letters of reference from persons familiar with the candidate's academic and professional abilities.
- * A typewritten essay of 2,000 words or less. Topics must be chosen from the list provided on the application form.

Areas of Interest:

While the Program has a natural appeal to students of public administration and political science, it is not necessarily limited to these disciplines. Students in all disciplines are welcome to apply -- the sciences, engineering and business.

Deadline:

April 15, 1978.

For further information write:

Dr. John M. Flynn, Director
Senate Student Programs Office
State Capitol, Room 500A
Albany, New York 12247

National Institute of Law Enforcement and Criminal Justice Unsolicited Research Program

No. FY78-142

Last year, the National Institute of Law Enforcement and Criminal Justice (NILECJ) began an unsolicited research program. The purpose of this program was to sponsor a small number of research projects which addressed significant issues pertaining to the adult criminal justice system. Because of the interest expressed in this program, the NILECJ has decided to expand this program during FY 1978.

As last years program, the major purpose of this year's Unsolicited Research Program is to sponsor a limited number of research projects which address significant issues pertaining to the adult criminal justice system. More specifically, the Institute is interested in the following types of research projects for this program:

- a) Small individual research projects for which there are few alternative funding mechanisms;
- b) Research projects with innovative approaches to criminal justice problems;
- c) Basic or theoretical research on interdisciplinary subject areas that may be relevant to criminal justice;
- d) Exploratory studies in criminal justice areas in which there has been little previous work;
- e) Research not currently identified as priority areas in the NILECJ's Program Plan; and
- f) Research within priority areas of the NILECJ's Program Plan but which take alternative, innovative approaches to the priority areas.

Concept papers for the next round must be postmarked no later than midnight March 31, 1978.

Current Publications And Other Scholarly Works

The list below includes works completed in Calendar Year 1976 and not previously reported in the Notre Dame Report.

ARTS AND LETTERS HUMANISTIC AND SOCIAL STUDIES

Theology

- Blenkinsopp, Joseph
J. Blenkinsopp. 1976. Judaism and teaching the Old Testament. The Living Light 28:360-371.
J. Blenkinsopp. 1976. The structure of P. Catholic Biblical Quarterly 38:275-292.
- Burrell, CSC, David
D. Burrell, CSC. 1976. Response to Louis Dupre. Proceedings of the Catholic Theological Society of America 31:11-14.
D. Burrell, CSC and F. Kane, eds. 1976. Evangelization in the American Context. University of Notre Dame Press, Notre Dame, Indiana. xi + 183 pp.
- Burtchaell, CSC, James T.
J.T. Burtchaell, CSC. 1976. Sermon at the mass inaugurating the academic year. 1976-77 Notre Dame Report 6(3):67-69.
J.T. Burtchaell, CSC. 1976. A statement presented to the subcommittee on postsecondary education of the U.S. House of Representatives, Washington, D.C. Pages 507-525 in Higher Education Act Amendments of 1976.
J.T. Burtchaell, CSC. 1976. The Local Church: Ten years After Vatican II. National Catholic Reporter Publishing Company.
- Fiorenza, Elisabeth Schussler
E.S. Fiorenza. 1976. Feminist Spirituality, Christian Identity and Catholic Vision. NICM Journal 11:20-34.
E.S. Fiorenza. 1976. Women in the New Testament. The Catholic World Nov/Dec:5-9.
E.S. Fiorenza. 1976. Book of Revelation. Pages 744-746 in, The Interpreters Dictionary of the Bible, Supplement Vol., Abingdon Press.
E.S. Fiorenza. 1976. Eschatology. Pages 271-277 in, The Interpreters Dictionary of the Bible, Supplement Vol., Abingdon Press.
E.S. Fiorenza. 1976. Firstfruits. Page 337 in, The Interpreters Dictionary of the Bible, Supplement Vol., Abingdon Press.
E.S. Fiorenza. 1976. Interpreting patriarchal traditions. Pages 39-61 in, L. Russel, ed. The Liberating World. Westminster Press.
E.S. Fiorenza. 1976. Women Apostles: The testament of scripture. Pages 94-102 in, Women and Catholic Priesthood, A.M. Gardiner, ed., Paulist Press.
E.S. Fiorenza. 1976. The Apocalypse. Franciscan Herald Press. 62 pp.
- Ford, J. Massyngberde
J.M. Ford. 1976. Social Evolution: Paul and Jesus, a contrast in Christian Theology, a case study approach. R.E. Evans and T.D. Parker, eds. Blackfriars.
J.M. Ford. 1976. In Living with change, experience and faith, The changing face of Christ in the Pauline communities. Pages 165-171 in, Theological Brief on the Holy Spirit.
J.M. Ford. 1976. Crucify Him, crucify Him and the Temple Scroll. Pages 117-150 in, Expository Times.
J.M. Ford. 1976. Zealotism and the Lucan Infancy Narratives. Novum Testamentum.
- Gallen, SJ, John
J. Gallen, SJ. 1976. American liturgy: Freedom in search of mystery. Emmanuel 81(11):514-519.
J. Gallen, SJ. 1976. The classic conflict: Between faith and liturgy. Pastoral Music 1:38-42.
J. Gallen, SJ and M. Aune. 1976. Lent and conversion. Celebration 5(3):Supplement.
- Girardot, N.J.
N.J. Girardot. 1976. Review of J. Needham's Science and Civilization in China. Religious Studies Review 2:40 pp.
N.J. Girardot. 1976. Review of M. Parkert's The Theoretical Foundations of Chinese Medicine: Systems of Correspondence. Religious Studies Review 2:40 pp.
- Hauerwas, S.
S. Hauerwas. 1976. Among the Moved: Reflections on Speer's Spandau. Worldview. 19:47-49.
S. Hauerwas and R. Bondi. 1976. Memory, community and the reasons for living: Theological and ethical reflections on suicide and euthanasia. Journal of American Academy of Religion 44:439-452.
S. Hauerwas. 1976. Story and theology. Religion in Life XLV:339-350.
S. Hauerwas. 1976. The search for the historical Niebuhr: Review of Merkley's Reinhold Niebuhr: A Political Account. Review of Politics 38:452-454.
S. Hauerwas. 1976. Truth and honor: The university and the church in a democratic age. Pages 38-53 in Proceedings of the James Montgomery Hester Seminar.
- Kilmartin, Edward J.
E.J. Kilmartin. 1976. Bread from heaven. Emmanuel 82:11-14.
E.J. Kilmartin. 1976. Eucharist and community. Emmanuel 82:87-92.
E.J. Kilmartin. 1976. Christ's presence in the liturgy. Emmanuel 82:237-243.
E.J. Kilmartin. 1976. Pastoral office and Eucharist. Emmanuel 82:301-308.
E.J. Kilmartin. 1976. Catholic response: to M. Aghioroussis. Journal of Ecumenical Studies 13: 211-212.
E.J. Kilmartin. 1976. The Orthodox-Roman Catholic dialogue on the Eucharist. Journal of Ecumenical Studies 13:213-219.
E.J. Kilmartin. 1976. Liturgical theology II. Worship 50:312-315.
E.J. Kilmartin. 1976. Review of J.R. McKenna, Eucharist and Holy Spirit: The Eucharistic Epiclesis in 20th century theology. Alquin Club Coll. 57. (Mayhew-McCrimmon: Great Waking, 1975) Theological Studies 37:494-496.

- E.J. Kilmartin. 1976. Review of Hughes Oliphant Old, *The Patristic Roots of Reformed Worship*. Zurcher Beitrage zur Reformationsgeschichte 5 (Theologischer Verlag: Zurich, 1975) *Theological Studies* 37:728-729.
- Malloy, CSC, Edward A.
E.A. Malloy, CSC. 1976. Religious life in a violent society. *Sisters Today* 47:498-502.
E.A. Malloy, CSC. 1976. The catechesis of sin. *Emmanuel* 82:300-305.
- Mitchell, Leone L.
L.L. Mitchell. 1976. Christian initiation. Pages 55-63 in *Our Living Worship* Executive Council of the Episcopal Church.
L.L. Mitchell. 1976. Christian initiation (Cassette tape). C 104 in *Catacomb Cassettes*.
L.L. Mitchell. 1976. The rite of Christian initiation (Cassette tape). A 330 in *NCR Cassettes*.
- O'Connor, Edward
E. O'Connor. 1976. The charismatic renewal: And historical perspective. *Emmanuel* 82(9):411-415.
- Ryan, John B.
J.B. Ryan. 1976. Eucharistische Gebeden voor de moderne mens. *Rond de Tafel* 31:2-22.
J.B. Ryan. 1976. Eucharistische Hochgebete fur den heutigen Menschen. *Liturgisches Jahrbuch* 26:116-137.
J.B. Ryan. 1976. How to use the new Eucharistic prayers. Special supplement. *Celebration* 5:1-8.
J.B. Ryan. 1976. Les prieres eucharistiques de Huub Oosterhuis. *La Maison-Dieu* 32:60-84.
J.B. Ryan. 1976. The sacrifice of praise in early liturgies. *Emmanuel* 82:178-184.
- Taft, SJ, Robert F.
R.F. Taft, SJ. 1976. Bibliographie J.-M. Hanssens J.J. *Orientalia Christiana Periodica* 42:234-240.
R.F. Taft, SJ. 1976. De Geest van de Oosterse Liturgis. *Het Christelijk Oosten* 28:229-245.
R.F. Taft, SJ. 1976. Review of Chr. Strube, *Die westliche Eingangsseite der Kirchen von Konstantinopel in justinianischer Zeit*. *Orientalia Christiana Periodica* 42:296-303.
R.F. Taft, SJ. 1976. Eastern-Rite Catholicism: Its Heritage and Vocation. NY. PP. 38 in John XXIII Ecumenical Center, Fordham University.
- Weaver, F. Ellen
F.E. Weaver. 1976. Cloister and salon in seventeenth century Paris: Introduction to a study in women's history. *Ohio Journal of Religious Studies* 4(1):44-57.
- Zannoni, Arthur E., Ph.D.
A.E. Zannoni. 1976. A critical review of: Childs, B.S., *The Book of Exodus: A Critical Theological Commentary*. Philadelphia Westminster Press. *Anglican Theological Review* 58(2):231-232.
A.E. Zannoni. 1976. Five disconcerting theological reflections from Old Testament wisdom literature. *Saint Luke's Journal of Theology* 19(4):286-298.
A.E. Zannoni. 1976. Praying the Psalms. *Saint Luke's Journal of Theology* 19(3):203-208.
A.E. Zannoni. 1976. The ministry of the Laity: A ten-year project. Pages 99-105 in *Realities and Visions*. R.C. Stough and U.T. Holmes, eds. Seabury Press, New York.

- Toner, James H.
J.H. Toner. 1976. Exceptional war, exceptional peace: The 1953 cease-fire in Korea. *Military Review* 56:3-13.
J.H. Toner. 1976. Review of *The Paralysis of International Institutions and the Remedies*, Istvan Bibo. *Military Review* 56:107-109.
J.H. Toner. 1976. Review of *Military Force and American society*, eds., Bruce M. Russett and Alfred Stepan. *Naval War College Review* 29:130-131.

SCIENCE

Biology

- Duman, John G.
J.G. Duman and A.L. DeVries. 1976. Isolation, characterization and physical properties of protein antifreezes from the winter flounder, *Pseudopleuronectes americanus*. *Comparative Physiology and Biochemistry* 54B:375-380.
- Esch, Harald
H. Esch. 1976. Foraging strategies in bees. *American Bee Journal* 116:568-573.
- Fuchs, Morton S.
M.S. Fuchs and W.F. Fong. 1976. Inhibition of blood digestion by α -amanitin and actinomycin D and its effects on ovarian developments in *Aedes aegypti*. *Journal of Insect Physiology* 22:465-471.
W.F. Fong and M.S. Fuchs. 1976. Studies on the mode of action of ecdysterone in adult female *Aedes aegypti*. *Molecular and Cellular Endocrinology* 4:341-351.
W.S. Fong and M.S. Fuchs. 1976. The long term effect of α -amanitin on RNA synthesis in adult female *Aedes aegypti*. *Insect Biochemistry* 6:123-130.
W.F. Fong and M.S. Fuchs. 1976. The differential effect of RNA synthesis inhibitors on ecdysterone induced ovarian development in mosquitoes. *Journal of Insect Physiology* 22:1493-1499.
- Olson, Kenneth R.
K.R. Olson. 1976. Vasoactive effects of ouabain, amiloride and furosemide on the isolated perfused gill of rainbow trout (*Salmo gairdneri*). Abstract 1337 in *Federation Proceedings*.
M.S. Katchen, K.R. Olson and C. Wayne. 1976. Effects of histamine and serotonin on the isolated perfused gill of the rainbow trout (*Salmo gairdneri*). Abstract 1774 in *Federation Proceedings*.
- Rai, Karamjit S.
C.F. Curtis, N. Lorimer, K.S. Rai, S.A. Suguna, D.K. Uppal, S. Kazmi, E. Hallinan and K. Dietz. 1976. Simulation of alternative genetic control systems for *Aedes aegypti* in outdoor cages and with a computer. *Journal of Genetics* 62:101-115.
- Saz, Howard J.
P. Kohler and H.J. Saz. 1976. Demonstration and possible function of NADH:NAD⁺ transhydrogenase from *Ascaris* muscle mitochondria. *Journal of Biological Chemistry* 251:2217-2225.
C.F. Fiorvanti and H.J. Saz. 1976. Pyridine nucleotide transhydrogenases of parasitic helminths. *Archives of Biochemistry and Biophysics* 175:21-30.

Tweedell, Kenyon S.

K.S. Tweedell. 1976. Utilization of ^3H -thymidine triphosphate by developing stages of *Pectinaria gouldii*. Biological Bulletin 151:260-271.

K.S. Tweedell and D.C. Williams. 1976. Morphological changes in frog pronephric cell surfaces after transformation by Herpes virus. Journal of Cell Science 22:385-395.

Weinstein, Paul P.

R.D. Tkachuck, P.P. Weinstein and J.F. Mueller. 1976. Isolation and identification of a cobamide coenzyme from the tapeworm *Spirometra mansonioides*. Journal of Parasitology 62:948-950.

Chemistry

Labinger, Jay A.

J. Schwartz and J.A. Labinger. 1976. Hydrozirconation: A new transaction metal reagent for organic synthesis. Angewandte Chemie International Edition in English 15:333-340.

Kozak, John J.

C.J. Benham and J.J. Kozak. 1976. Denaturation: An example of a catastrophe II. Tow-state transitions. Journal of Theoretical Biology 63:125-149.

Martinez-Carrion, Marino

B. Boetcher and M. Martinez-Carrion. 1976. Itemizing enzyme ligand interactions in native and half active hybrid aspartate transaminase to probe site-site relationships. Biochemistry 15:5657-5666.

Scheidt, W.R.

P.L. Piciulo and W.R. Scheidt. 1976. Nitrosylemetalloporphyrins. III. Synthesis and molecular stereochemistry of nitrosyl- $\alpha,\beta,\gamma,\delta$ -tetraphenylporphinato (1-methylimidazole) iron (II). Journal of American Chemical Society 98:1913-1919.

P. Madura and W.R. Scheidt. 1976. Stereochemistry of low-spin cobalt porphyrins. VIII. $\alpha,\beta,\gamma,\delta$ -tetraphenylporphinato cobalt (II). Inorganic Chemistry 15:3182-3184.

W.R. Scheidt, D.A. Summerville and I.A. Cohen. 1976. Molecular stereochemistry of a nitrogen-bridged metalloporphyrin. μ -Nitrido-bis ($\alpha,\beta,\gamma,\delta$ -tetraphenylporphinatoiron). Journal of American Chemical Society 98:6623-6628.

J.F. Kirner, W. Dow and W.R. Scheidt. 1976. Molecular stereochemistry of two intermediate-spin complexes. Iron (II) phthalocyanine and manganese (II) phthalocyanine. Inorganic Chemistry 15:1685-1690.

Earth Sciences

Brehob, Kenneth R.

J.P. Herr and K.R. Brehob. 1976. Transportation in St. Joseph Co. Wise use of energy? Environmental Quality News 4(3):1.

Gutschick, Raymond C.

R.C. Gutschick and R. Lamborn. 1976. Double-arrow trace fossils in Northwestern Pennsylvania. Pennsylvania Geology 7(6):2-5.

Horodyski, Robert J.

R.J. Horodyski. 1976. Stromatolites from the Middle Proterozoic Altyn Limestone, Belt Supergroup, Glacier National Park, Montana. Pages 585-597 in, M.R. Walter, ed. *Stromatolites*, Elsevier Publishing Co., Amsterdam.

R.J. Horodyski. 1976. Stromatolites of the upper Siyeh Limestone (Middle Proterozoic), Belt Supergroup, Glacier National Park, Montana. Precambrian Research 3:517-536.

Mathematics

Cecil, Thomas E.

T.E. Cecil. 1976. On the completeness of flat surfaces in S^3 . Colloquium Mathematicum 33:139-143.

O'Meara, O. Timothy

O.T. O'Meara. 1976. Hilbert's eleventh problem: The arithmetic theory of quadratic forms. Proceedings Symposia Pure Mathematics 28:379-400.

D.C. Callan (under O.T. O'Meara). 1976. The generation of $Sp(F_2)$ by transvections. Journal of Algebra 42:378-390.

Palm, Andrew C.

A.C. Palm. 1976. Integral representation formulas on strictly pseudoconvex domains in Stein manifolds. Duke Mathematical Journal 43:41-62.

Smyth, Brian

B. Smyth. 1976. Weakly ample Kaehler manifolds and Euler number. Mathematische Annalen 224:269-279.

Stoll, Wilhelm

N. Weyland (under W. Stoll). 1976. Functions holomorphes d'ordre fini dans les domaines strictement convex. Comptes Rendus de L'Academie des Sciences Paris 9:697-699.

Microbiology

Chang, Chienkuo Fred

C.F. Chang and M. Pollard. 1976. Transplantation of prostate adenocarcinoma cells to bone marrow chimeric rats. American Journal of Pathology 82:33a.

Kulpa, Charles F.

C.F. Kulpa and T.J. Tinghitella. 1976. Encapsulation of polyuridylic acid in phospholipid vesicles. Life Sciences 19:1879-1888.

Madsen, David C.

B.S. Wostmann and D.C. Madsen. 1976. Gut microflora and lipid metabolism. Journal of Germfree Life and Gnotobiology 5:34-41.

D.C. Madsen, M. Beaver, L. Chang, E. Bruckner and B.S. Wostmann. 1976. Analysis of bile acids in germfree and conventional rats. Journal of Lipid Research 17(2):107-111.

B. Wostmann, E. Bruckner, M. Beaver, L. Chang and D.C. Madsen. 1976. Effect of dietary lactose at levels comparable to human consumption on cholesterol and bile acid metabolism of conventional and germfree rats. Journal of Nutrition 106:1782-1790.

Pleasants, Julian R.

J.R. Pleasants, B.S. Wostmann, L. Chang, K.F. Bartizal and M. Vitol. 1976. Effect of rapid oil ingestion on pregnancy outcome in germfree C^3H mice fed water-soluble chemically defined diet. Page 5 in, *Proceedings, Annual Meeting of Association for Gnotobiotics*.

Webb, Phyllis M.

- A. Meshorer and P. Webb. 1976. Patterns of cell differentiation in bone marrow of germfree mice as a result of specific antigenic stimuli. Experimental Pathology 12(5):259-268.

Physics

Artz, J.L.

- J.L. Artz, M.B. Greenfield and N.R. Fletcher. 1976. ^8Be producing reactions in $^{12}\text{C} + ^{12}\text{C}$, $^{16}\text{O} + ^{16}\text{O}$, and $^{28}\text{Si} + ^{12}\text{C}$. Physical Review C13:156-163.
- D. Dehnhard, J.L. Artz, D.J. Weber, V. Shkolnik and R.M. DeVries. 1976. $^{29,30}\text{Si}$ (^{16}O , ^{15}N) Proton stripping reaction at 60 MeV. Physical Review C13:164-170.
- V. Shkolnik, D. Dehnhard, J.L. Artz, D.J. Weber and M. Franey. 1976. Elastic scattering of ^{16}O on ^{28}Si , ^{29}Si , and ^{30}Si at 60.0 MeV. Pages 761-766 in, Proceedings of the Symposium on Macroscopic Features of Heavy-Ion Collisions, Vol. II, Contributed Papers, Report No. ANL/PHY-76-2, Argonne National Laboratory, Argonne, Illinois.
- H.P. Morsch, J.F. Peterson, D.A. Lewis, J.L. Artz and D. Dehnhard. 1976. Small angle structure in inelastic ^{16}O scattering. Pages 699-704 in, Proceedings of the Symposium on Macroscopic Features of Heavy-Ion Collisions, Vol. II, Contributed Papers, Report No. ANL/PHY-76-2, Argonne National Laboratory, Argonne, Illinois.
- Bishop, James M.
- J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, V.P. Kenney and W.D. Shephard. (Notre Dame - Duke - IPP Canada Collaboration). 1976. Study of the charge structure of events produced in 200 GeV/c π -p Collisions. Physical Review D14:2894-2901.
- N.N. Biswas, R.L. Bolduc, P.D. Higgins, J.M. Bishop, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. (Iowa State - Maryland - Michigan State - Notre Dame). 1976. Direct e^+e^- pair production by 360 GeV/c in hydrogen. Physical Review Letters 37:1593-1596.
- N.N. Biswas, R.L. Bolduc, P.D. Higgins, J.M. Bishop, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. (Iowa State - Maryland - Michigan State - Notre Dame). 1976. π -p interactions at 360 GeV/c: Measurement of the total and elastic gross sections and the charged particle multiplicity distribution. Physical Review D14:2902-2908.
- Bose, Samir K.
- S.K. Bose and W.D. McGlinn. 1976. Baryon interactions in SU(4). Physical Review D14:3167-3173.
- Darden, S.E.
- S.E. Darden and W. Haeberli. 1976. Polarization effects in transfer reactions. Pages 229-241 in, W. Gruebler and V. Konig, eds. Proceedings of the IV International Symposium on Polarization Phenomena in Nuclear Reactions.
- Johnson, Walter R.
- K.T. Cheng and W.R. Johnson. 1976. Self-energy corrections to the K-electron binding in heavy and super heavy atoms. Physical Review A14:1943-1948.
- W.R. Johnson, C.D. Lin and A. Dalgarno. 1976. Allowed and forbidden transitions of helium-like ions. Journal of Physics B: Atomic and Molecular Physics 9:L303-L306.

Kenney, Paul V.

- J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, V.P. Kenney and W.D. Shephard. (Notre Dame - Duke - IPP Canada Collaboration). 1976. Study of the charge structure of events produced in 200 GeV/c π -p Collisions. Physical Review D14:2894-2901.
- N.N. Biswas, R.L. Bolduc, P.D. Higgins, J.M. Bishop, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. (Iowa State - Maryland - Michigan State - Notre Dame). 1976. Direct e^+e^- pair production by 360 GeV/c in hydrogen. Physical Review Letters 37:1593-1596.
- N.N. Biswas, R.L. Bolduc, P.D. Higgins, J.M. Bishop, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. (Iowa State - Maryland - Michigan State - Notre Dame). 1976. π -p interactions at 360 GeV/c: Measurement of the total and elastic gross sections and the charged particle multiplicity distribution. Physical Review D14:2902-2908.
- McGlinn, William D.
- S.K. Bose and W.D. McGlinn. 1976. Baryon interactions in SU(4). Physical Review D14:3167-3173.
- C.H. Lee and W.D. McGlinn. 1976. Uniqueness of perturbation of a Reissner-Nordstrom black hole. Journal of Mathematical Physics 17:2159-2165.
- Mihelich, John W.
- J.W. Mihelich, E.G. Funk, J. Fleissner, D. Rakei, F. Venezia and R. West. 1976. In-beam γ -ray spectroscopy on some even-even rare earth nuclei and odd-proton nuclei with $Z \geq 55$ and $N \leq 88$. Proceeding of International Conference on Selected Topics in Nuclear Structure 1:60.
- Shephard, William D.
- J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, V.P. Kenney and W.D. Shephard. (Notre Dame - Duke - IPP Canada Collaboration). 1976. Study of the charge structure of events produced in 200 GeV/c π -p Collisions. Physical Review D14:2894-2901.
- N.N. Biswas, R.L. Bolduc, P.D. Higgins, J.M. Bishop, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. (Iowa State - Maryland - Michigan State - Notre Dame). 1976. Direct e^+e^- pair production by 360 GeV/c in hydrogen. Physical Review Letters 37:1593-1596.
- N.N. Biswas, R.L. Bolduc, P.D. Higgins, J.M. Bishop, N.M. Cason, V.P. Kenney, D.S. Rhines and W.D. Shephard. (Iowa State - Maryland - Michigan State - Notre Dame). 1976. π -p interactions at 360 GeV/c: Measurement of the total and elastic gross sections and the charged particle multiplicity distribution. Physical Review D14:2902-2908.
- Wojslaw, R.J.
- R. Yamanda, J. Dinkel, R.J. Wojslaw and C.D. Buchanan. 1976. Fermilab magnet mapping system. Nuclear Instruments and Methods 138:567-571.

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
Administration on Aging	Model Projects on Aging	April 1, 1978
Department of the Interior	Postsecondary Educational Support for Indians	April 1, 1978
National Endowment for the Humanities	College Library Grants	April 15, 1978
National Endowment for the Humanities	Higher Education Curriculum Materials Grants	April 1, 1978
National Endowment for the Humanities	Higher Education General Project Grants	April 1, 1978
National Endowment for the Humanities	Pilot Grants	April 15, 1978
National Endowment for the Humanities	Research Programs (general)	April 1, 1978
National Endowment for the Humanities	Teacher Institutes	April 1, 1978
National Endowment for the Humanities	Youthgrants in the Humanities	April 15, 1978
National Science Foundation	Ethnics and Values in Science and Technology Proposals	April 3, 1978
National Science Foundation	Human Cell Biology Proposals	April 15, 1978
National Science Foundation	Public Understanding of Science Proposals	April 1, 1978
National Science Foundation	U.S.-New Zealand Visiting Scientists and Seminars Proposals	April 1, 1978
Office of Education	Strengthening Research Library Resources Program	April 11, 1978
Public Broadcasting Service	Corporation for Public Broadcasting (women's training)	April 14, 1978

documentation

Minutes of the 178th Meeting of the Graduate Council December 5, 1977

The Chairman called the meeting to order at 3:30 p.m. All the members were present except Leo V. Ryan who was represented by Yusaku Furuhashi. Also present at the invitation of the council were Rev. David Burrell, C.S.C., Robert L. Wilken and Philip Gleason for the presentation and discussion of the Final Review Report on the graduate program in theology.

I. MINUTES OF THE PREVIOUS MEETING

The minutes of the 177th meeting were unanimously approved as distributed.

II. FINAL REVIEW REPORT ON THE GRADUATE PROGRAM IN THEOLOGY

The chairman welcomed Father Burrell, Wilken and Gleason to the council. Gleason was invited to present the University Review Committee's Final Report.

Gleason informed the council that Jeffrey Russell, chairman of the committee, had attended many meetings with the faculty, students and administrators during the site visit of the external reviewers. In preparing his Final Report in the absence of Russell, Gleason had to rely mostly on the written documents. His general judgment was that the Department of Theology had carried out a thoughtful and positive assessment of the external reviewers' reports. According to Gleason's report, the external reviewers applauded the department's attempt to develop the ecumenical spirit within the Catholic tradition. They noted the wide range of responsibilities assumed by the department, which include a service program, an undergraduate major program and a professional program, besides, M.A. and Ph.D. programs. The complexities of the department's responsibilities, they observed, would offer opportunities for mutual enrichment. The department is a large one for the College of Arts and Letters at Notre Dame and appears to enjoy strong University support in the form of faculty positions, graduate student support, library budget, etc. While the reviewers commended the department's choice of the three major areas in theological inquiry, Jewish and Christian antiquities, and liturgical studies, they suggested that the title of the first area may have been chosen to reflect the department's intention to retain its flexibility in the face of new directions in the field of theology in our time. The department's decision to set biblical studies within the context of Jewish and Christian antiquities was again commended by the reviewers. Liturgical studies was noted as an area where Notre Dame had a fine tradition. The reviewers were impressed by the desirability of linking the study of worship to theological speculation. They on the other hand, wished to see more development in the area of non-western religions, especially in comparative study of the role of ritual in religion. They cautioned that the three areas of concentration selected by the department should be understood as options for doctoral study and not be allowed to determine the structure of the whole department. They also recommended that graduate seminars be established to reflect the areas of concentration in the department.

While praising the quality of both the faculty and students of the department, the reviewers commented on the fact that the younger members of the faculty appeared to be called upon to bear a heavy share of administrative work.

Gleason believed that the department's response was made easier because the external reviewers' general assessment was favorable. Steps have already been taken to implement some of the reviewers' recommendations. Regular monthly meetings of the faculty have taken place. Departmental committees have been made responsible to the faculty as a whole, rather than just to the chairman. There has been, on the whole, a greater degree of faculty participation in the department. Following the reviewers' recommendations, the department has established priorities for hiring faculty in the future and has acknowledged the importance of service in consideration for promotion.

In a personal assessment of the department before concluding, Gleason noted that high morale and an unusual degree of corporate sense existed among the theology faculty.

Following Gleason's summary, the chairman invited Father Burrell to comment on the overall review. Father Burrell pointed out the relatively short history of graduate theological studies at Notre Dame and said that in this respect the department was still in a developing stage. He briefly sketched the history of theological education in the U.S. and reiterated the department's decision to regard itself as an ecumenical department of theology in the Catholic tradition. The department's multiple responsibility, according to Father Burrell, is a result of the department's view of its mission. He emphasized the department's desire to serve the American Church and develop its pastoral theology program. He commented on the presence of the Center for Pastoral and Social Ministry and the importance attached to pastoral theology at Notre Dame. He stated the hiring priorities adopted by the department and informed the council that the chair in the department would be filled in the light of these priorities.

Wilken was then invited to add to Father Burrell's comments on the review. He again stressed the brief history of the department's graduate program and hence the fragile structure which has been built and which continues to require a great deal of care and discipline to nurture and develop. He foresaw stricter admissions in the future. He briefly highlighted some characteristic features of the restructured curriculum and concluded with the comment that the department has grown in confidence in what it is doing.

The ensuing discussion touched on a number of issues related to the department, including the quality theological schools in the U.S., the relation between the Ecumenical Institute in Tautur and our department, personnel turnover in the liturgy program, the master's program, the faculty teaching at the doctoral level, the teaching of classical languages at the graduate level and the Medieval Institute, and the role of the M.Th. program in the department. There was much interest in Father Burrell's remark that the areas of focus should be considered only as "student tracks."

At this point, Gordon had to leave the meeting to take a long distance phone call. Isabel Charles assumed the chair and called for successive motions to approve the Departmental Response to the external reviewers' reports (Report C) and the Final Report of the University Review Committee (Report D). Both reports were unanimously accepted. Gleason, Father Burrell and Wilken asked to be excused and left the meeting.

It was moved, in Gordon's absence, that the council proceed to Item IV in the agenda, instead of Item III.

IV. ADMISSION TO GRADUATE DEGREE CANDIDACY

Charles invited the council to examine the list of applications for admission to graduate degree candidacy prepared by the Graduate Office on the recommendations from departments. The list includes master and doctoral candidates for degrees in January, May and August 1978. The council was informed that those who wish to graduate in May and August 1978 would still be able to apply for admission to candidacy at a later date. The motion to approve the list as presented was then carried unanimously.

Gordon returned to the meeting and resumed the chair. The council turned to Item III in the agenda.

III. STATUS OF THE MASTER'S DEGREE AT NOTRE DAME

The chairman presented the materials related to the master's degree as distributed to the council, in particular "Some Remarks on Graduate Education." He noted that many doctoral students reach the ABD stage after doing satisfactory course work only to discover that they do not have the necessary research skill to complete the dissertation part of the program. What is needed is the means to reinforce and evaluate this skill earlier and not to wait until the final phase to discover a possible deficiency. Hence the recommendation for the papers in the master's programs.

The discussion which followed the presentation turned around the practicality of the proposal: length of the master's program, the matching of the proposal with the personnel situation in the departments, etc. One council member summed up the general feeling of the council by pointing to the desirability in testing the student's ability to do research at an early stage. What needed further probing was the forms of testing. Charles finally suggested that different approaches should be attempted in different departments and recommended that council members take the idea back to their respective departments for further discussion. Frank Bonello asked that "Some Remarks on Graduate Education" be published together with the minutes of the meeting.

V. CHAIRMAN'S REMARKS

The chairman reverted to a question raised at the end of the previous meeting concerning application fees and invited Rev. Robert J. Austgen, C.S.C., to present some data related to the practice of application fees at other institutions.

The following 1976-77 data on application fees was supplied by Father Austgen:

1. Ivy League and eastern institutions:

Harvard: \$25
Yale, Brown, Penn, Princeton, Columbia, Cornell, MIT, CUNY: \$20
Lehigh: \$15
Dartmouth: no fee

2. Big Ten institutions:

Northwestern: \$25
Illinois: \$20
Indiana, Michigan, MSU, Minnesota: \$15
Ohio State, Purdue, Wisconsin: no fee

3. California institutions:

USC: \$25
All other institutions: \$20

4. Other independent institutions:

Catholic Univ., George Washington: \$25
Georgetown, Boston Univ.: \$20
Boston College, Creighton, Fordham: \$15

Father Austgen concluded that our \$15 fee is not out of step with the practice at other institutions.

The chairman informed the council that the University was seeking to improve GA stipends in the future to make Notre Dame more competitive with peer institutions.

He reminded the council that the next meeting had been scheduled for Jan. 16, 1978. He reported that institutions around the country are holding their Graduate Council meetings at intervals which vary between institutions from two weeks to six months. At Notre Dame he thought we should try to meet once a month, if possible. Future meetings for the rest of the academic year have been scheduled for the months of January, February, March and April. A suggestion was made that we could hold separate meetings for departmental reviews.

The meeting was adjourned at 5:20 p.m.

Chau T.M. Le
Secretary

Appendix I

External Review of the Department of Theology

Introduction

The external review of the doctoral program in the Department of Theology came at a most timely point in the department's development. Only the year before (1975-76) the department completed a self-examination and reorganization of its graduate program. The visit on March 22-23, 1977 of Prof. Julian Hartt (University of Virginia), George MacRae (Harvard University) and William F. May (Indiana University) made it possible for three respected scholars to look carefully at the department's newly restructured program, evaluate it, and offer suggestions for its improvement. The department recognized the benefits to be derived from such a consultation, welcomed the review, and has begun to act in a positive manner on the suggestion made by the visitors.

The Reviewers' General Assessment

The department's positive reception of the reviewers' comments was doubtless eased by the fact that their suggestions were relatively minor and were made in the context of a very favorable general assessment. Thus Hartt states that "this graduate program compares very favorably with those widely held to be leaders in the field"; MacRae concludes "that the graduate program is a healthy one and that the future of the department is bright"; and May, who describes the department as "not only competitive but in many ways unique in American theological education," concludes his evaluation by characterizing it as a "solid, vigorous, self-aware, self-critical and imaginative young department." Similarly favorable judgments are passed on the quality of the faculty and graduate students and on the general structure of the doctoral program. When not endorsements of what is being done, the reviewers' comments are in the nature of friendly suggestions for improvements rather than being criticisms of what are perceived to be defects.

The Reviewers' Comments and Recommendations

The reviewers agreed in approving the department's determination to identify itself as an ecumenical department of theology in the Catholic tradition. May offers the most detailed commentary on this intention, commending it not merely as a way of concentrating the focus of the department, but also as a contribution to the larger collective enterprise of scholarship and teaching the areas of theology and religious studies in American higher education. The reviewers all likewise recognize the uniqueness of the department's range of responsibilities, which include servicing undergraduate requirements in theology, an undergraduate major program, and a professional program, as well as M.A. and Ph.D. programs. They note that this range of responsibilities requires a delicate balancing of the department's energies and resources, but that it also offers unusual opportunities for mutual enrichment. Indeed, May's remarks on how the substantive concerns of theological "amateurs"--i.e., undergraduate students--can act as a useful curb upon the tendency to overspecialization so often characteristic of doctoral level teachers and students, have a broader application than to theological studies alone. The wide range of responsibilities of the department is also related to its large size (30 members) and to the fact, noted by all the reviewers, that it enjoys unusually strong University support in the form of faculty positions, financial aid for graduate students, library budget, etc.

While making a few passing comments on the professional program and the M.A. program, the reviewers concentrated their attention on the Ph.D. program. They approved the department's decision to focus on three areas: 1) theological inquiry; 2) Jewish and Christian antiquities; and 3) liturgical studies.

Both Hartt and May note the somewhat unrevealing character of the designation "theological inquiry," but the former's suspicion that it implied an overemphasis on methodology was allayed, while the latter endorses what he understands to be the department's rationale for the label--namely, the intention of the department to retain its flexibility during a period when theological studies are in a condition of theoretical fluidity.

MacRae, a biblical scholar, commended the department's decision to set biblical studies within the context of Jewish and Christian antiquities. And liturgical studies was noted by Hartt as an area where the department had longstanding distinction. He and May were especially impressed by the desirability of linking the study of worship to theological speculation. May's lengthy and positive discussion of this aspect of the department's program concludes with the suggestion that, in addition to the traditional historical orientation of the faculty, more be done to relate liturgical studies to systematic theology, social ethics and personality formation.

The reviewers believe that the department needs at least one additional faculty position in the area of non-western religions, and they point out the desirability of comparative study of the role of ritual in religion.

While endorsing the threefold focus of the doctoral program, MacRae sounds a cautionary note by deprecating the "tendency to use these three categorizations to define the whole life of the department." He points out that this tendency could constrict other programs of the department (e.g., the professional program) by forcing them to accommodate themselves to the concentrations for doctoral study rather than developing along lines determined by their own nature and needs. The three focal areas should be understood as options for doctoral study, not as determinants of the structure of the department.

MacRae and May made several suggestions dealing with what might be called the operationalization of the threefold graduate focus--recommendations, that is, for the manner in which courses, seminars and graduate examinations might be restructured in keeping with the reorganization into three major areas. MacRae, for example, suggests the establishment of "area seminars" which would "form the heart of the doctoral programs" in each of the three areas of concentration. May outlines an alternative in what he calls "a second semester colloquium" which would bring together students from different areas of specialization. The reviewers likewise take note of doctoral examinations as needing some restudy, but they do not regard this as a major problem.

As noted earlier, the reviewers consider the quality of the faculty to be very good; they also remark on the high level of faculty morale and the confidence expressed in the chairman, even by younger members of the department whose status is least secure and who are called upon to bear a heavy burden of administrative work. In respect to the last point, the reviewers also stress that the degree of reliance on untenured members of the faculty is unusual and note that special consideration is required when tenure and promotion decisions are made if young scholars are not to suffer for their willingness to undertake administrative responsibilities.

The reviewers also recommend that the departmental faculty as a whole should be more involved in policy- and decision-making. To this end they suggest more frequent faculty meetings, and making the committees responsible to the faculty as a whole rather than to the chairman alone.

Student morale also struck the reviewers as good, and so did the quality of the graduate students. The advisory system and supervision of GA teaching experience were matters the reviewers noted as coming up in their talks with students and concerning which they made a few comments, but which they did not regard as matters of significant concern.

The reviewers report the graduate students as being much more critical of the library than the faculty, especially in respect to slowness of acquisitions and inter-library loans. Since the library budget seems quite generous to all the reviewers--it is "in a class by itself" according to Hartt--they recommend further investigation to uncover and deal with the sources of the students' dissatisfactions. May's discussion is the most detailed and includes several alternative suggestions to improve service.

Departmental Response to the Reviewers' Reports

Since "the department was encouraged by the external reviewers to continue in the directions charted by the faculty," as Father Burrell's response accurately observes, there has been no great difficulty about accepting the report and acting on its recommendations. In respect to the administration of the department and the library problem, concrete steps have already been taken to meet the reviewers' suggestions. Departmental committees have been made accountable to the faculty as a whole rather than just to the chairman, and regular monthly meetings of the faculty have been initiated. And the library has engaged a reference librarian with a background in theology who will provide the kind of services to the department envisioned in May's discussion.

A number of other recommendations--dealing with courses, seminars, examinations and supervision of GA teaching experience--have been turned over to the appropriate departmental committees for study and action in the future. The department has taken note of the reviewers' observations on areas of relative weakness in coverage and has established priorities for hiring in: 1) pastoral theology; 2) history of religions; 3) collateral areas such as classics and ancient history. The department has also taken cognizance of the reviewers' comments in acknowledging "the importance of service in consideration for advancement."

Concluding Remarks

The other intra-University representative in the review of the Theology Department, Jeffrey Russell, has left Notre Dame since the review took place. I cannot speak for him, but my own impressions coincide with the favorable assessment given by the external reviewers. I have no expertise in theology, but it seemed clear to me that the department has gone through a serious and thoughtful process of self-appraisal; that it has tried conscientiously to focus its energies in areas of faculty strength and to organize its future development in keeping with those selections; that there has been excellent faculty involvement in this self-study and in the efforts to carry out its implications, and that the level of faculty morale is unusually high. I was not present at the interview between the external reviewers and graduate students in theology, but the preliminary survey of student attitudes (which I did see) indicated a greater degree of dissatisfaction than is reflected in the reviewers' reports of their actual contacts with graduate students. Since the reviewers went at their task in a serious and thorough manner, my presumption is that they were convinced that the student morale situation was better than one might infer from the preliminary survey. But since their written reports do not take explicit note of this discrepancy, it might be of use to mention it here.

Respectfully submitted,

Philip Gleason
Department of History

Appendix II

Vice President of Advanced Studies on Graduate Education

On Attrition of Doctoral Students

I would now like to explore with you the possibility of an academic change intended to curb wastage in our Ph.D. programs. I hope formally to propose it to the Graduate Council for its consideration. It really requires no legislation by any group, but I hope it will receive consideration and eventual acceptance at the departmental level.

It is well known that not every student admitted to a doctoral program receives the doctoral degree. Of the class entering our Graduate School in 1970, the following percentages of students qualified for candidacy: in the humanities, 58.6 per cent; in the social sciences, 54.2 per cent; in the science division, 55.6 per cent. The class entering in 1972 had different figures, in some respects quite low. Only a third of the social scientists qualified in three years. How many of our students have received their degree after six? Of the class of '70, 17 per cent of those in the humanities had received their degrees; 37 per cent in the social sciences; and 56 per cent in the sciences. The national average is far worse: only 16 per cent of graduate students admitted complete their Ph.D.'s in a period of six years. It is fair to assume that a further number goes on to complete doctorates later than that. However, I would like to ask, despite our favorable record compared to the national average, whether we might not consider an improvement.

It is understood around the country that a student admitted to graduate school has shown every likelihood of good performance in course work, and, indeed, in comprehensive examinations. These are experiences which have their anticipation on the undergraduate level. The stage at which most students fail is that of dissertation-writing. Most students who reach the dissertation stage and die there have received enormous amounts of financial aid, in most cases from the host institution. A student who does, say, six years of work here and then drifts off across the horizon may well have received \$25,000 of University funds, with no degree resulting and no professional career, which depended upon that degree, likely to be available. Is it not possible to review our system to discern earlier those students who are not likely to have the independence and imagination and creativity and oomph that it takes to do personal research? Many students have received nothing but As in all their graduate courses, have been given excellent marks in their candidacy exams, and then have gone to pieces not even being able to put together a decent dissertation proposal. What I would suggest is that we impose upon students a personal research experience much earlier after their entry into graduate school. It seems to me very important to see whether a student can fly alone before an enormous investment of time and funds has been made. And we have a way for doing that; it is just that we don't use it very much: the research M.A. or M.S. By and large we have retired the research master's degree from service on the belief that we are dealing with students who are in any case going to be doing their own major dissertation for the doctorate later; it would simply be a postponement in their career development to invite them to do it, say in their second year here, or even to begin such a thing in their first summer. I would like to suggest that we review that policy, particularly in those divisions of the Graduate School which do not involve bench research. I set the bench sciences aside because the dissertation experience there is so different. The attrition rate is lower because the mentor and the student work together on a single project in a way that is not the case, for example, in the humanities, where the mentor and the student do not work together and meet occasionally, where the student is doing much more of a solo project. I recommend that these departments not invite a student onward beyond the master's degree unless he or she has shown, over at least a solid semester of time, the capacity to initiate and complete an independent research project, which we generally take to establish the difference between someone who is able to pass on knowledge and someone who will take an active part in the discovery of new knowledge.

--Extracted from Provost's address to Academic Council, Dec. 2, 1976 (See NDR 7, 1976-77 for full text of the address.)

On the Use of First and Second Year Research Papers

The degree of Doctor of Philosophy is by tradition a research oriented degree.

A commitment of excellence imposes on each department in the University some rather severe responsibilities: selection of students whose graduate potentialities are outstanding; development and implementation of a program that is not only consonant with the intellectual strength of the department, but is also realistically based on available resources. And in this place we have a special moral responsibility to be sensitive to, and to clearly communicate of, conditions that influence the future of our graduates.

These considerations suggest that we seek small but outstanding programs in all disciplines in which we enter the graduate lists. The competitive nature of the "job market" is such that only the best shall survive.

It is against this background that I second the Provost's suggestion of a reconsideration of the master's program in the University, including a renewal of emphasis on independent scholarship as a major criterion for the conferral of the master's degree and its use as an entry to doctoral programs.

Continuing scholarship embodies the exercise of abilities to identify and articulate a thesis, to research it, and to express the results of that effort in an organized and systematic way, all consonant with the best traditions of the discipline.

Our graduate efforts should inculcate critical experiences designed to sharpen the aforementioned abilities. One way in which that may be done is to adopt the practice of assigning to each student a first and a second year research paper.

The first year paper may well take an historical approach of what has been done on a given topic, providing a basis, perhaps, for a later introductory chapter of a doctoral dissertation. The second year paper might continue the thesis with emphasis on methodological approaches, thus providing a basis for a later second chapter in a dissertation. Together, the papers might suffice for a master's thesis in some disciplines; in others, they may well serve in lieu of a comprehensive examination. But for all disciplines, the two together provide distinctive measures of the student's ability to exercise the central features of continuing scholarship. Lastly, let not the word "paper" boggle your imagination. In the performing arts, the first year portfolio or recital may serve as the proper analogue. In some professional programs corresponding exercises, all seeking the twin objectives of the development and the testing of appropriate skills, may be proposed.

Underlying the whole of the concept is a marked move away from a simple 30-hour master's program as inappropriate for graduate work that considers serious scholarship as its hallmark.

Robert E. Gordon
Vice President for Advanced Studies

Salaries, Tenure and Fringe Benefits of Full-Time Instructional Faculty, 1977-78

The Office of the Dean of Administration has prepared and filed Higher Education General Information Survey (HEGIS XII), Salaries, Tenure and Fringe Benefits of Full-Time Instructional Faculty, 1977-78, with the Department of Health, Education and Welfare, Washington, D.C. Information from the report is processed and recorded by the National Center for Education Statistics, from which the National Office of the American Association of University Professors (AAUP) collects data and develops average salary and average compensation by rank for each reporting university or college. The following salaries are computed on a nine-month basis.

Table 1

AVERAGE SALARIES PER AAUP REPORTS

	<u>1977-78</u>	<u>1976-77</u>	<u>1975-76</u>	<u>1974-75</u>	<u>1973-74</u>	<u>1972-73</u>	<u>1971-72</u>
Professor	\$26,099	\$24,571	\$22,731	\$21,137	\$20,111	\$19,409	\$19,109
% Increase	6.2	8.1	7.5	5.1	3.6	1.6	5.4
Assoc. Professor	\$20,166	\$18,848	\$17,313	\$16,267	\$15,460	\$15,014	\$14,658
% Increase	7.0	8.9	6.4	5.2	3.0	2.4	5.0
Asst. Professor	\$15,911	\$14,751	\$14,073	\$13,186	\$12,616	\$12,388	\$12,209
% Increase	7.9	4.8	6.7	4.5	1.8	1.5	5.5
Instructor	\$14,683	\$12,975	\$11,477	\$10,745	\$10,164	\$ 9,853	\$ 9,170
% Increase	13.2	13.1	6.8	5.7	3.2	7.4	9.5
All Ranks	\$20,788	\$19,336	\$17,839	\$16,558	\$15,654	\$15,323	\$14,873
% Increase	7.5	8.4	7.7	5.8	2.2	3.0	4.9

Table 2

AVERAGE COMPENSATION PER AAUP REPORTS

	<u>1977-78</u>	<u>1976-77</u>	<u>1975-76</u>	<u>1974-75</u>	<u>1973-74</u>	<u>1972-73</u>	<u>1971-72</u>
Professor	\$30,509	\$28,634	\$26,391	\$24,457	\$23,461	\$22,438	\$21,497
% Increase	6.5	8.5	7.9	4.2	4.6	4.4	5.9
Assoc. Professor	\$23,405	\$21,915	\$20,039	\$18,873	\$18,063	\$17,398	\$16,389
% Increase	6.8	9.4	6.2	4.5	3.8	6.2	5.6
Asst. Professor	\$18,326	\$16,902	\$16,037	\$15,058	\$14,421	\$14,180	\$13,263
% Increase	8.4	5.4	6.5	4.4	1.7	6.9	5.1
Instructor	\$16,559	\$14,611	\$12,886	\$12,053	\$11,441	\$11,201	\$ 9,842
% Increase	13.3	13.4	6.9	5.3	2.1	13.8	10.5
All Ranks	\$24,147	\$22,415	\$20,581	\$19,094	\$18,148	\$17,673	\$16,515
% Increase	7.7	8.9	7.8	5.2	2.7	7.0	5.2

Table 3

AVERAGE SALARY FOR CONTINUING TEACHING AND RESEARCH MEMBERS ON FACULTY

	<u>Number</u>	<u>1977-78</u>	<u>1976-77</u>	<u>Increase</u>	<u>% Increase</u>
Professor	136	\$26,391	\$24,663	\$ 1,728	7.0%
Associate Professor	148	\$20,225	\$18,720	\$ 1,505	8.0
Assistant Professor	112	\$16,329	\$15,053	\$ 1,276	8.5
Instructor	13	\$14,977	\$13,815	\$ 1,162	8.4
All Ranks	409	\$21,042	\$19,536	\$ 1,506	7.7%

ND-SMC Spring 1978 Final Examination Schedule

- I. LAST CLASS DAY--is Monday, May 8, 1978. Examinations begin at 8:00 a.m. Wednesday, May 10, 1978 and continue through to 12:30 p.m. Tuesday, May 16, 1978. (Tuesday, May 9 is a study day and no examinations may be scheduled.) No examinations are to be scheduled on Sunday, May 14.
- II. REGULATIONS FOR FINAL EXAMINATIONS--Two-hour final examinations must be given at the time and place stipulated in this official examination schedule. Changes in the hour, date or place of an examination as assigned by the Office of the Registrar are not permitted. Unless a course is designated as a departmental, the examination in each section of the class must be given at the hour designated.
- III. MAY GRADUATES--If a graduating student has a "B" average or better in the class, that student may be exempt from the final examination at the discretion of the instructor. Names of graduating students will be provided to the faculty on the semester grade lists.
- IV. DEPARTMENTAL EXAMINATIONS AND FRESHMAN EXAMINATIONS--All freshmen courses are examined at a departmental time increment. The authorized departmental examinations are:

<u>DEPARTMENT AND COURSE NUMBER</u>	<u>EXAMINATION TIME</u>	<u>DATE OF EXAMINATION</u>
ACCT 222	7:30 - 9:30 p.m.	Friday, May 12
ACCT 480	8:00 - 10:00 a.m.	Wednesday, May 10
ANTH 109	1:45 - 3:45 p.m.	Wednesday, May 10
ARCH 251	8:00 - 10:00 a.m.	Saturday, May 13
ART 152	1:45 - 3:45 p.m.	Wednesday, May 10
BA 235	7:30 - 9:30 p.m.	Wednesday, May 10
BIOL 102	1:45 - 3:45 p.m.	Friday, May 12
BIOL 104	8:00 - 10:00 a.m.	Friday, May 12
CHEM 116	1:45 - 3:45 p.m.	Friday, May 12
CHEM 116L	7:30 - 9:30 p.m.	Friday, May 12
CHEM 224	1:45 - 3:45 p.m.	Monday, May 15
CHEM 224L	1:45 - 3:45 p.m.	Saturday, May 13
EASC 102, 112, 122	1:45 - 3:45 p.m.	Friday, May 12
EASC 142	1:45 - 3:45 p.m.	Thursday, May 11
ECON 121	8:00 - 10:00 a.m.	Wednesday, May 10
ECON 224	7:30 - 9:30 p.m.	Monday, May 15
EG 120, 121	1:45 - 3:45 p.m.	Thursday, May 11
EG 126, 334	7:30 - 9:30 p.m.	Wednesday, May 10
EG 236	7:30 - 9:30 p.m.	Saturday, May 13
EG 328	7:30 - 9:30 p.m.	Thursday, May 11
ENGL 109	1:45 - 3:45 p.m.	Saturday, May 13
ENGL 114	10:30 a.m. - 12:30 p.m.	Wednesday, May 10
FIN 231	7:30 - 9:30 p.m.	Saturday, May 13
FIN 360	1:45 - 3:45 p.m.	Wednesday, May 10
FS 180	1:45 - 3:45 p.m.	Saturday, May 13

DEPARTMENT AND COURSE NUMBER	EXAMINATION TIME	DATE OF EXAMINATION
GP 191	10:30 a.m. - 12:30 p.m.	Thursday, May 11
GOVT 141	10:30 a.m. - 12:30 p.m.	Wednesday, May 10
HIST 100 Series	1:45 - 3:45 p.m.	Wednesday, May 10
HUM 186	1:45 - 3:45 p.m.	Saturday, May 13
MARK 231	7:30 - 9:30 p.m.	Thursday, May 11
MATH 100 Series	1:45 - 3:45 p.m.	Monday, May 15
MATH 210, 226	10:30 a.m. - 12:30 p.m.	Monday, May 15
MET 225	7:30 - 9:30 p.m.	Monday, May 15
MGT 231	10:30 a.m. - 12:30 p.m.	Tuesday, May 16
Modern and Classical Languages 100 Series	1:45 - 3:45 p.m.	Thursday, May 11
MLFR 242, 204	1:45 - 3:45 p.m.	Thursday, May 11
MLSP 242	1:45 - 3:45 p.m.	Thursday, May 11
PHIL 101	4:15 - 6:15 p.m.	Saturday, May 13
PHYS 112, 202	1:45 - 3:45 p.m.	Friday, May 12
PHYS 126	10:30 a.m. - 12:30 p.m.	Thursday, May 11
PHYS 142	1:45 - 3:45 p.m.	Wednesday, May 10
PHYS 210	10:30 a.m. - 12:30 p.m.	Monday, May 15
PHYS 222	4:15 - 6:15 p.m.	Saturday, May 13
PSY 111	4:15 - 6:15 p.m.	Wednesday, May 10
ROTC	8:00 - 10:00 a.m.	Thursday, May 11
SOC 100 Series	1:45 - 3:45 p.m.	Wednesday, May 10
THEO 100 Series	8:00 - 10:00 a.m.	Monday, May 15
UNSC 102, 112	1:45 - 3:45 p.m.	Friday, May 12

V. NON-DEPARTMENTAL CLASS EXAMINATIONS--Class examinations meet in the same classroom used during the semester at the following time increments. Please note the exact starting time for each examination since these hours differ from the starting hours of the classes. 75 or 90 minute classes are to be examined at the time which corresponds to the starting time of a 50 minute class held at the same hour, i.e. 9TT11 will be examined at the same time as 9TTF, etc.

CLASSES MEETING AT:	WILL BE EXAMINED AT:	DATE	CLASSES MEETING AT:	WILL BE EXAMINED AT:	DATE
8:00 a.m. MON.*	8:00 a.m. MON	MAY 15	8:00 a.m. TUES.**	10:30 a.m. MON.	MAY 15 (SMC)
9:05 a.m. MON.	8:00 a.m. FRI	MAY 12	9:05 a.m. TUES.	10:30 a.m. TUES.	MAY 16
10:10 a.m. MON.	8:00 a.m. TUES.	MAY 16	10:10 a.m. TUES.	10:30 a.m. WED.	MAY 10
11:15 a.m. MON.	8:00 a.m. SAT.	MAY 13	11:15 a.m. TUES.	10:30 a.m. WED.	MAY 10
12:00 p.m. MON.	8:00 a.m. WED.	MAY 10			
1:15 p.m. MON.	4:15 p.m. WED.	MAY 10	1:15 p.m. TUES.	10:30 a.m. THURS.	MAY 11
2:20 p.m. MON.	4:15 p.m. THURS.	MAY 11	2:20 p.m. TUES.	10:30 a.m. FRI.	MAY 12
3:25 p.m. MON.	4:15 p.m. FRI.	MAY 12	3:25 p.m. TUES.	8:00 a.m. THURS.	MAY 11
4:30 p.m. MON.	4:15 p.m. SAT.	May 13	4:30 p.m. TUES.	10:30 a.m. SAT.	MAY 13
5:35 p.m. MON.	4:15 p.m. MON.	May 15			

*Monday--includes classes which meet for the first or only time each week on either MON. or WED. or FRI.

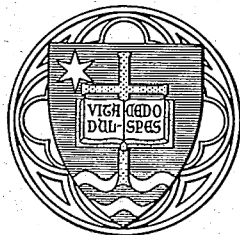
**Tuesday--includes classes which meet for the first or only time each week on either TUES. or THURS.

ND-SMC Spring 1978 Final Examination Schedule

	WEDNESDAY May 10	THURSDAY May 11	FRIDAY May 12	SATURDAY May 13	MONDAY May 15	TUESDAY May 16
8:00 a.m. to 10:00 a.m.	12MWF 12M 12W 12F ECON 121 ACCT 480 SMC: BuEc 221 EnLt 102,103	3TU 3TH ROTC SMC: Phil 110, 114,118	9MWF 9MW11 9M 9W 9F BIOL 104	11MWF 11M 11W 11F ARCH 251	8MWF 8MWF10 8M 8W 8F THEO 100 Level	10MWF 10MW12 10M 10W 10F
10:30 a.m. to 12:30 p.m.	10TT12 10TU 10TH 11TU 11TH ENGL 114 GOVT 141	1TT3 1TU 1TH PHYS 126 GP 191	2TT4 2TU 2TH	4TT6 4TU 4TH SMC: BuEc 251 Educ 405	MATH 210, 226 PHYS 210 SMC: 8TT10 8TU 8TH EnLt 409	9TT11 9TU 9TH MGT 231
1:45 p.m. to 3:45 p.m.	ANTH 109 ART 152 HIST 100 Level FIN 360 SOC 100 Level PHYS 142 SMC: EnLt 104, 203 Bio 325 BuEc 231	MODL 100 Level MLSP 242 MLFR 204,242 EASC 142 EG 120, 121 SMC: MIFr 102, 112 MIGr 102 MIIt 102 MISp 112: 61, 62, 64	BIOL 102 CHEM 116 EASC 102, 112, 122 PHYS 112, 202 UNSC 102, 112 SMC: Bio 104, 209	FS 180 ENGL 109 HUM 186 CHEM 224L SMC: Hist 102, 104	MATH 100 Level CHEM 224 SMC: Hist 202: 62, 63 CpSc 348	
4:15 p.m. to 6:15 p.m.	1MWF 1MW3 1M 1W 1F PSY 111	2MWF 2MW4 2M 2W 2F	3MWF 3M 3W 3F	4MWF 4MW6 4M 4W 4F PHIL 101 PHYS 222 SMC: Soc 203	5MWF 5M 5W 5F SMC: Educ 201 Educ 320	
7:30 p.m. to 9:30 p.m.	EG 126, 334 BA 235 SMC: Govt 151, 152 EnLt 412	EG 328 MARK 231 SMC: BuEc 202, 332 EnLt 241 HuSt 464	CHEM 116L ACCT 222 SMC: BuEc 314 Soc 153	EG 236 FIN 231 SMC: BuEc 252	MET 225 ECON 224 SMC: Rtst 231	

Dean Joseph C. Hogan
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notre dame report



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