

Notre Dame

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August 31, 1990

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The University

Opening Mass

The Mass to celebrate the formal opening of the 1990-91 academic year will be held Sunday, September 9, at 10 a.m. in Sacred Heart Church. The presiding celebrant will be Rev. Edward A. Malloy, C.S.C., University president, and the homilist will be Provost Timothy O'Meara.

President's Brunch for New Faculty

The President's reception for new faculty members will take the form of a brunch to be held in the North Dining Hall immediately following the Opening Mass, at approximately 11:30 a.m.

President's Address to the Faculty

Rev. Edward A. Malloy, C.S.C., president, will deliver an address to the faculty on Wednesday, October 3, at 4:30 p.m. in Washington Hall.

Kelly Elected Alumni Association President

Raphael M. Kelly of Ponte Vedra Beach, Fla., has been elected president of the Alumni Association. A senior vice president in investments for PaineWebber, Inc., Kelly, who was graduated from Notre Dame in 1961, works in the firm's Jacksonville, Fla., branch office. He will preside over a 90,000-member international association comprising 200 alumni clubs in 49 states and 12 countries overseas. Notre Dame's Alumni Association is the most extensive of its kind in American higher education.

As president, Kelly will continue to serve on the University's board of trustees, where he has been an exofficio member as president-elect of the Alumni Association. His term of office ends June 1991.

Graduate Studies and Research Advisory Council Created

A new Advisory Council for Graduate Studies and Research has been created to continue the momentum of graduate education and research, clarify strategies and communicate to those outside Notre Dame the importance of its endeavors. The creation of this council symbolizes the University's goal of making Notre Dame as strong on the graduate level as it is on the undergraduate.

Notre Dame currently has nearly 1,200 graduate students enrolled in 23 doctoral and 35 master's programs. About 60 percent of these students are enrolled in the humanities and social sciences, 20 percent in science and 20 percent in engineering. The research division of the graduate school receives about \$18 million annually from public and private sources to support faculty projects.

Members of this council are: J. Paul Bolduc, vice chairman of W.R. Grace & Co., New York, N.Y.; Gudrun Risse, Elkhart, Ind.; Michael G. Browning, president of Browning Investments Inc., Carmel, Ind.; Nancy M. Haegel, Department of Materials Science and Engineering, University of California at Los Angeles, Calif.; Daniel H. Kahrs of Spartanburg, S.C.; John P. Keegan, partner of Abberley Koolman, New York, N.Y.; Joan M. McGrath, executive vice president of McGrath RentCorp., San Lorenzo, Calif.; and Bruce S. Tuthill, senior vice president of Prudential-Bache, Hingham, Mass.

Advisory Council Appointments Announced

New appointees to University advisory councils were announced:

For the College of Arts and Letters, James T. Barry Jr., president of James T. Barry Co. Inc., Milwaukee, Wis.; Badi G. Foster, president of Aetna Institute For Corporate Education, Hartford, Conn; Charles L. Grace, president of Cummins Atlantic Inc., Charlotte, N.C.; and Jeremiah P. O'Grady, Jeffries & Co., New York, N.Y.

For the College of Business Administration, Roland Seidler Jr., chairman of the board, Seidler Amdec Securities Inc., Los Angeles, Calif.

For the College of Engineering, James A. Nolen III, president of Nolan Companies, Plymouth Meeting, Pa.

For the University Libraries, Philip J. Fagan Jr., chairman and president of Intercare Inc., Culver City, Calif.

For the Institute for Pastoral and Social Ministry, Anthony and Yvonne Vallace, Weston, Mass.

For the College of Science, Robert E. Campbell, vice chairman of the executive committee of Johnson & Johnson, New Brunswick, N.J.

For the Snite Museum of Art, Allan J. Riley, president of Allan Riley Realty Inc., New York, N.Y.; and William M. Voelkle, curator of mediaeval manuscripts at Pierpoint Morgan Library, New York, N.Y.

For the Law School, Richard P. Anton, an attorney in Pittsburgh, Pa.; and David W. Ellis, senior partner of Ellis, Bost & Robinson Ltd., Vicksburg, Miss.

The University

Mellon Foundation Gives Grant to Kellogg Institute

The University has received a \$385,000 grant from the Andrew W. Mellon Foundation for the Helen Kellogg Institute for International Studies. The funds will support an international research project "Social Policies for the Urban Poor in Southern Latin America: Welfare Reform in a Democratic Context."

Under the direction of Guillermo O'Donnell, academic director of the Kellogg Institute, participating scholars will analyze past, present and proposed social policies relating to poor people in major countries of South America, particularly in Chile and Brazil.

Lilly Endowment Gives Grant to Cushwa Center

The Cushwa Center for the Study of American Catholicism, has received a \$294,000 grant from the Lilly Endowment to study Hispanic Catholics in the 20th century United States. The three-year study will examine the major Hispanic groups—Mexican, Puerto Rican and Cuban—in various regions throughout the United States to understand the role played by Catholicism in Hispanic culture and the ways this form of Catholicism did or did not fit into the institutional church. The study also will suggest implications for the future.

Directing the Cushwa Hispanic study will be Jaime R. Vidal, assistant director of the Cushwa Center. Vidal, a historical theologian educated at Fordham University, is a native of Puerto Rico with research interest in the historical development of institutional and popular religion in the Caribbean and the way they interact.

In order to encourage young Hispanic scholars to become involved in historical research on Catholicism among Hispanics, three dissertation fellowships will be given out to doctoral candidates in both the second and third years of the project.

Grant Received to Research U.S. History

The University has received an \$85,000 grant from the United States Information Agency to fund international research at Notre Dame and Warsaw University for a five-volume history of the United States to be published in Poland.

According to Donald T. Critchlow, associate professor of history at Notre Dame and the American general editor for the project, more than 30 scholars from the United States and Poland will take part in the unprecedented effort. Walter Nugent, Tackes professor of history, is also among them. The five volumes, designed to acquaint the Polish public with American history and culture, will be printed and distributed by the most prestigious academic publisher in Poland, the Polish Academic Publishing House. Each volume will include some 30 pages of illustrations.

Critchlow and his Polish counterpart, Andrzej Bartnicki of Warsaw University, hope to see the history translated and published not only in Poland, but also in other East European countries where up-to-date and objective histories of America have been unavailable for decades. They expect that the history will be translated into Czech, Hungarian, Russian and possibly Chinese by publishers in countries where those are the native languages.

Law School Purchases Chicago Bar Collection

The Law School Library has purchased the library of the Chicago Bar Association, a highly coveted library of 150,000. The collection was purchased for \$300,000. It was sold because the Chicago Bar Association relocated next to the John Marshall Law School and will contract for library services there.

Among the volumes acquired are extensive runs of long-sought-after primary and secondary state legal collections. Court reports, statutes and bar association publications also are heavily represented.

Additionally included are long runs of unique periodicals and reports of national and state law reform commissions and other specialized institutes and centers, as well as an outstanding collection of unique and out-of-print texts representing much of the significant legal publishing from the first half of this century. Selected runs of government publications and task force reports no longer available in published formats were also included.

Honors

Joan Aldous, Kenan professor of sociology, was elected to a three-year term on the Council of the American Sociological Association. She was also elected chairperson for the 1991 Theory and Methodology workshop of the National Council on Family Relations.

Panagiotis J. Antsaklis, professor of electrical engineering, was elected to a three-year term on the IEEE Control Systems Society Board of Governors beginning January 1.

J. Douglas Archer, associate librarian, was elected vice chair, chair elect of the Philosophical, Religious, and Theological Studies discussion group of the Association of College and Research Libraries during the annual meeting of the American Library Association, Chicago, Ill., June 25.

Thomas P. Bergin, director of Continuing Education and professor of management, has been asked to serve on a panel of inquiry for the President's Special Commission reviewing the grants program of the National Endowment of the Arts.

Gary H. Bernstein, assistant professor of electrical engineering, was awarded patent number 4,937,174, titled "Process of Obtaining Improved Contract in Electron Beam Lithography" by the U.S. Patent Office, June 26.

Katharina J. Blackstead, associate librarian, has been reappointed chairperson of the Continuing Education Committee of the Area Library Services Authority, Region 2, for a one-year term. She has been elected secretary/ chair-elect of the Steering Committee of the Association of College and Research Libraries' Public Relations in Academic Libraries Discussion Group, in which capacity she will also serve as editor of its publication, *Catalyst*, for a one-year term. She has also been appointed to membership for a two-year term to the Library Administration and Management Association's Public Relations Section's Management Discussion Group Steering Committee.

Sonia G. Gernes, professor of English, was named the 1990 winner of the Charles E. Sheedy award for distinguished teaching in the College of Arts and Letters.

Patrick Horsbrugh, professor emeritus of architecture, was elected a member of the Scientific and Medical Network in the United Kingdom.

Roger F. Jacobs, professor of law, law librarian, director of research in the Law Library and associate dean for Research and Information Services, was elected to the Council of the American Bar Association Section of Legal Education and Admissions to the Bar, Aug. 6.

Eugene F. Lauer, director of the Center for Continuing Formation in Ministry, was elected chairperson of the newly-formed National Catholic Coalition on Preaching, at its organizational meeting in Washington, D.C. The coalition is made up of about 15 national organizations. It's primary task will be to develop a National Preaching Conference, like the National Liturgical Conferences of the '60s and '70s.

Thomas J. Mueller, chairman and Roth-Gibson professor of aerospace and mechanical engineering, has been appointed to the editorial board of the *Bulletin of the International Flow Visualization Society* which will be published in 1991 by Hemisphere Publishing Corporation.

Karamjit S. Rai, professor of biological sciences, was awarded the Ernest Oppenheimer Memorial Trust W.D. Wilson Fellowship in South Africa for 1990. He was in residence in South Africa from May 17-July 9 with head-quarters at the University of Durban-Westville. From there, he made extensive trips to other parts of the country to exchange scientific information with scholars at various Universities and Research Institutes and to present seminars on the work done in his laboratory in the fields of vector genetics, epidemiology of mosquito transmitted disease and potential method for controlling the same.

Kathryn M. Ryan-Zeugner, part-time assistant librarian, was elected to the Steering Committee of the Reference in Medium-Sized Research Libraries Discussion Group of the American Library Association for a term of four years beginning in July. She was appointed to a subcommittee of the Interlibrary Loan Committee of the American Library Association and was charged with the review of the Model and National Interlibrary Loan Codes.

David L. Schindler, associate professor in the Program of Liberal Studies, has been appointed to the board of advisors of the newly established Center for Christianity and the Common Good at the University of Dallas.

Donald E. Sporleder, professor of architecture, was appointed a master juror and a member of the Master Juror Committee for 1990-91 by the National Council of Architectural Registration Boards in May. This committee oversees the grading of the Architects Registration Examination, a national uniform examination given twice each year in June and December to candidates for licensure by the State Boards of Registration for Architects in 55 jurisdictions in the United States and its territories.

Nancy K. Stanton, professor of mathematics, was appointed to the National Selection Panel for 1990 Presidential Awards for Excellence in Mathematics Teaching.

Activities

Linda P. Austern, assistant professor in the Program of Liberal Studies, received a travel grant from the American Council of Learned Societies which was funded by the John D. and Catherine T. MacArthur Foundation and the National Endowment for the Humanities to attend the fourth biennial conference on Baroque Music at Royal Holloway and Bedford New College of the University of London in Surrey, England, July 19-22. She was invited to organize a session on women and music during the Baroque era and to present a paper titled "The Siren, the Muse and the God of Love: Music and Gender in Seventeenth-Century English Emblem Books" at that conference.

Stephen M. Batill, associate professor of aerospace and mechanical engineering, presented a lecture titled "Finite Element Methods in Preliminary Structural Design" to the Structures and Dynamics Division of the Air Force Flight Dynamics Laboratory at Wright-Patterson Air Force Base, Ohio, July 24. He presented a lecture titled "Surface Pressure Distribution and Near Wake Structures on Yawed, Stranded Cables" to the Hydrodynamic Systems Division of the Naval Coastal Systems Center in Panama City, Fla., Aug. 7.

Katharina J. Blackstead, associate librarian, served as designer and planner for the Association of College and Research Libraries' workshop titled "Inspiring Enthusiasm for Research: An ACRL Event" in Chicago, Ill., June 22.

Hsueh-Chia Chang, chairman and professor of chemical engineering, delivered an invited seminar titled "Selection on Periodic Patterns in Unbounded Domains" at the Institute of Paper Science and Technology at the Georgia Institute of Technology in Atlanta, Ga., July 26.

Daniel M. Chipman, professional specialist in the Radiation Laboratory, gave the paper "The Spin Polorization Model for Hyperfine Coupling Constants of Hydrocarbon pi Radicals" at the seventh American conference on Theoretical Chemistry held in San Diego, Calif., July 30-Aug. 4.

Daniel J. Costello Jr., chairman and professor of electrical engineering, presented "Multi-Level Trellis Coded Modulation and Multi-Stage Decoding" at the 1990 IEEE Information Theory workshop in Eindhoven, The Netherlands, June 12.

Brian J. Crumlish and Donald E. Sporleder, professors of architecture, participated in the fifth North American Masonry conference at the University of Illinois, Champaign-Urbana, Ill., June 3-6. Their participation was sponsored by the Illinois Masonry Advisory Council.

Fabio B. Dasilva, professor of sociology, presented a paper "Deconstruction and Sociological Theory: Derrida" at the international meeting of the International Sociological Association held in Madrid, Spain, July 9-13.

JoAnn DellaNeva, chair and associate professor of romance languages and literatures, presented the paper titled "S(c)evered Lines: An Aspect of Petrarchan Intertextuality in the Délie" at the Kentucky Foreign Language conference in Lexington, Ky., April 28.

William G. Dwyer, professor of mathematics, gave an hour talk "A New Finite Loop Space" at the Adams Memorial symposium on Algebraic Topology held at the University of Manchester in Manchester, England, July 2-15.

Rev. Patrick D. Gaffney, C.S.C., associate professor of anthropology, gave the talk "Mass Immigration of Soviet Jews into Israel/Palestine: A Moral Perspective" at a conference on Soviet Jewish Immigration into Palestine which was held at Indiana University in Bloomington, Ind., July 14.

Umesh Garg, associate professor of physics, gave the invited talk "Giant Resonance Studies Using Inelastic Scattering of Medium-Energy 4N Ions" at the workshop on the Interface Between Nuclear Structure and Heavy Ion Reaction Dynamics at Notre Dame, Ind., May 24-26.

Gregory I. Gellene, assistant professor of chemistry and biochemistry, presented two talks titled "Mass Independent Isotope Effects in the Formation of O₄. Evidence for a Symmetry Restriction" and "Vibrational Bonding in the D₃O Radical: A Possible Dynamical Explanation for the Observed μs Lifetime" at the Gordon conference on Atomic and Molecular Interactions held in Newport, R.I., Aug. 1.

Sonia G. Gernes, professor of English, gave a reading of her own poetry and fiction at Goshen College, Goshen, Ind., Feb. 21. She read her poetry and fiction and gave two writing colloquiums at Benedictine College in Atchison, Kans., March 26. Gernes spoke at Universal Notre Dame nights at Oklahoma City, Okla., Albuquerque, N.M., and Santa Fe, N.M., April 19-21. During July she served as a judge for the Indianapolis Poetry-on-the-Buses competition.

Gordon Hug, associate professional specialist in the Radiation Laboratory, presented the paper "Mechanisms of the Quenching of Triplet States by Ketyl Radicals" at the XII IUPAC symposium on Photochemistry in Coventry, England, July 23-27.

Roger F. Jacobs, professor of law, law librarian, director of research in the Law Library and associate dean for Research and Information Services, served as a consultant to the Canadian Department of Justice in Ottawa, Canada, July 25-26.

Eric J. Jumper, associate professor of aerospace and mechanical engineering, presented the paper titled "Oxygen Recombination on Space Shuttle Thermal-Protection-Tile Like Surfaces" at the 28th Aerospace Sciences meeting held in Reno, Nev., Jan. 8-11. He coauthored the AIAA paper number 90-0253 with J.A. Miller which was presented under the title "Numerical Simulation of the dissociation of $\rm I_2$ by O $_2$ ($\rm ^1\Delta$) in a Two-Dimensional Parallel Jet" at that meeting. Jumper co-authored the AIAA paper number 90-1576 with C.C. Woolhiser, C.R. Truman and B.S. Masson which was presented under the title "A Chlorine Utilization Study for Uniform-Droplet Singlet Delta Oxygen Generators" at the AIAA/ASME fifth Joint Thermophysics and Heat Transfer conference in Seattle, Wash., June 18-20.

Prashant V. Kamat, associate professional specialist in the Radiation Laboratory, presented the papers "Photoprocesses in Surface-Modified and Coupled Semiconductor Colloids" and "Photoinduced Electron Transfer Processes in Polymer Films and on Oxide Surfaces" at the eighth international conference on Photochemical Conversion and Storage of Solar Energy in Palermo, Italy, July 15-20.

Douglas Kinsey, professor of art, art history and design, conducted a monotype workshop for the University of California Extension at the Baskin Printmaking Studio in Santa Cruz, Calif., June 29-July 1.

Charles F. Kulpa, associate professor of biological sciences, presented the invited talk "Application of Biotechnology to Pollution Control: The Goal of the Center for Bioengineering and Pollution Control to the Niles-Buchanan Rotary at the University of Notre Dame, Notre Dame, Ind., July 9.

Kenneth R. Lauer, professor of civil engineering, served as a member of the National Science Foundation panel for review of proposals on "Quantitative Nondestructive Evaluation of Large Structures" in Washington, D.C., July 25-26.

Rev. Edward A. Malloy, C.S.C., president and professor of theology, delivered the major paper on the theme "The University and Cultural Progress" at the triennial conference of the International Association of University Presidents in the ancient university towns of Valladolid, Salamanca and Leon, Spain, July 9-13. In the paper he suggested four principal means by which universities can be an "influence for good" in their respective cultures. First, by engaging in cultural analyses based on gender, race and class, universities can encourage the development of cultural structures "that assure human respect, just treatment and a proper degree of political participation." Second, by promoting experiential education through social action programs, foreign study and internships, universities can help students to "learn from the life experiences of people different from themselves." Third, by being both sponsors and critics of the arts, universities can prepare students "to discern the different degrees of quality and excellence" in popular culture. Fourth, by maintaining and encouraging the study of religion, universities can help students to recognize that religion "is an integral part of the cultural history of the human species."

Paul McGinn, assistant professor of electrical engineering, gave an invited talk titled "Zone Melt Texturing of Extruded YBu₂Cu₃O_{7-x} Wires" at the Department of Energy STEPS Research Program Review meeting in Washington, D.C., July 25. He also served as the advisor for the June 1990 issue of JOM for a special section on Progress in High Temperature Superconductivity.

Ralph M. McInerny, Grace professor of medieval studies, director of the Maritain Center and professor of philosophy, gave the lectures "Natural Law and Its Theory" and "Natural Rights" at the Thomas J. White Seminary, Catholic University, Washington, D.C., July 16-18.

Richard R. Mendenhall, assistant professor of finance and business economics, presented the paper "The Relation Between the Value Line Enigma and the Post-Earnings-announcement Drift" co-authored with John Affleck-Graves, assistant professor of finance, to the faculty at Erasmus University of Rotterdam, The Netherlands, July 24.

María Rosa Olivera-Williams, associate professor of romance languages and literatures, taught a graduate course on Latin American Literature from Modernism to the Contemporary Period during the summer session at the Spanish School of the Middlebury College, Middlebury Vt. She presented a lecture on the Contemporary Literature of the Southern Cone Countries at that college.

William O'Rourke, associate professor of English, served on the faculty of the Bennington Writing Workshops at Bennington College in Bennington, Vt., July 1-14. He was interviewed by Joe Guilford on the Morning Show on WBAI-FM, New York, N.Y., July 7. He gave a reading at Bennington College, Bennington, Vt., July 9.

Teresa Godwin Phelps, associate professor of law, delivered the paper titled "What Happens When the Basic Writer/Minority Student Comes to Law School?" at the biennial conference of the Legal Writing Institute in Ann Arbor, Mich., July 27.

Simon Pimblott, assistant professional specialist in the Radiation Laboratory, gave the paper "Ionization and Excitation Distribution in Water Radiolysis" co-authored by Asokendu Mozumder, faculty fellow in chemistry, and Jay A. LaVerne, associate professional specialist in the Radiation Laboratory, at the meeting on The Solvated Electron—Past, Present and Future at Argonne, Ill., July 16-18.

Wolfgang Porod, associate professor of electrical engineering, presented a talk titled "Transport SiO₂" at the ONR Contractors review meeting held at Stanford University in Stanford, Calif., July 12-14. He presented a seminar titled "High-Field Electronic Transport in SiO₂" at the Department of Electrical and Computer Engineering at Oregon State University in Corvallis, Oreg., July 16.

Karamjit S. Rai, professor of biological sciences, presented "Genetic Control of Mosquitos: Past, Present and Future" at the University of Zululand in Kwadlangezwa, South Africa, May 22. He lectured on "Vectors of Human Disease: Natural History Distribution and Epidemiology at the University of Natal in Pietermaritzburg, South Africa, May 23. He presented Aedes Scutellaris Complex of Mosquitos: Zoogeography, Evolution and Genetics" at the University of Natal in Durban, South Africa, May 25, and at the University of Pretoria in Pretoria, South Africa, June 6. He gave the lecture "Current Malaria Control Problems Throughout the World and Possible Solutions" to the City Health Department in Durban, South Africa, May 29. Rai presented "Can Malaria Really Be Controlled?" to the Research Institute for Diseases in the Tropical Environment in Durban, South Africa, May 30, at the Medical University of South Africa in Pretoria, South Africa, June 7, at the South African Institute for Medical Research in Johannesburg, South Africa, June 8, at the University of Bophuthatswana in Mafikeng, South Africa, June 11, and at the National Health and Population Planning in Richards Bay, South Africa, June 19.

Steven T. Ruggiero, associate professor of physics, presented the talk "Applications of Active Superconducting Devices" at Superconductor Technologies, Inc., in Santa Barbara, Calif., July 14.

Jonathan Sapirstein, associate professor of physics, presented the invited talks "Particle Physics Implications of High-Accuracy Analysis of PNC in Cesium" and "Field Theoretic Effects in Highly Charged Ions" at the workshop on Coupled-Cluster Theory at the Interface of Atom Physics and Quantum Chemistry at the Institute for Theoretical Atomic and Molecular Physics at the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass., Aug. 6-11.

Howard J. Saz, professor of biological sciences, presented the paper "A Stimulatory Factor" of *Ascaris* 2-Methylbutyryl-CoA: Succinate CoA Transferase" at the 65th annual meeting of the American Society of Parasitologists held in East Lansing, Mich., June 26-30.

Robert P. Schmuhl, associate professor of American studies, was one of 35 college and university instructors selected to attend C-CPAN's summer seminar for professors in Washington, D.C., Aug. 6-7.

James H. Seckinger, director of the National Institute for Trial Advocacy and professor of law, was a speaker at the NITA Advanced Program at the University of Colorado School of Law in Boulder, Colo., July 6. He spoke at the NITA National Program at the University of Colorado School of Law, Boulder, Colo., July 8. He served as program coordinator and a faculty member for the NITA/Brown & Bain Law Firm Deposition Program in Phoenix, Ariz., July 19-21. He also gave a lecture to the faculty on Effective Teaching Techniques.

Ajit Singh, Scholl professor of economics, gave the special lecture "The Actual Crisis of Economic Development in the Third World: Analytical and Policy Issues" in the A T & T Lecture Series at the University of Notre Dame, Notre Dame, Ind., April 10. He presented the papers "International Competitiveness and Industrial Policy" and "The Role of the Government in Indian Industrial Development" which will be published in a book on the proceedings of the Senior Policy Seminar on International Competitiveness held at the Korean Development Institute in Seoul, South Korea, April 18-20. He participated in a panel discussion on Economic Reforms and Changes in the role of the State at the fourth conference of the Interregional Coordinating Committee of Development Association in Paris, France, April 25-26. Singh presented the paper "Should Centrally Planned Developing Countries Establish Stockmarkets?" at the seminar on Political Economy at Oxford University, England, May 1. He presented the paper "Predicting Success: Pre-merger Characteristics and Post-merger Performance" with A.D. Cosh, A. Hughes and K. Lee at an international conference on Oligopoly Mergers and Trade held at the University of Aix-en-Provence, June 21-22.

Billie F. Spencer Jr., assistant professor of civil engineering was a visiting scholar at A.S. Veritas Research, Det norske Verits, Hovik, Norway, July 1-31.

Donald E. Sporleder, professor of architecture, participated in the 69th annual meeting of the National Council of Architectural Registration Boards in Washington, D.C., June 27-30. He served as a delegate of the Indiana State Board of Registration for Architects. He also served as a grader at the Architects Registration Examination Building Design Grading Session in Pittsburgh, Pa., July 18-22.

Carl L. Stam, associate professional specialist, director of choral music and concurrent assistant professor of music, served as the guest conductor of the Midwestern Music Camp, Senior High Division, held at the University of Kansas in Lawrence, Kans., July 14-21. The week-long event included performances by the 50-voice chorale and the 120-voice concert choir.

Nancy K. Stanton, professor of mathematics, gave a talk on "Spectral Invariants of Pseudoconformal Manifolds" at the American Mathematical Society summer research institute on Differential Geometry at the University of California in Los Angeles, Calif., July 10.

Albin A. Szewczyk, professor of aerospace and mechanical engineering, presented the seminar "On the Role of Bouyancy in a Heated Wake" at the Institut Fur Stromungslehre Und Stromungsmachinen, Universitat Karlsruhe, Karlsruhe, Federal Republic of Germany, May 3, and at the Universitat Stuttgart in the Institut Fur Aerodynamik und Gasdynamik in Stuttgart, Federal Republic of Germany, May 30. He presented "The Effects of Shear and Turbulence on the Flow Past Rectangular Cylinders" at the Delft University of Technology in the Department of Aeronautics in Delft, The Netherlands, June 21, and at the Lehrstule Fur Stromungslehre at the University of Essen, Essen, Federal Republic of Germany, July 10.

J. Kerry Thomas, Nieuwland professor of chemistry and biochemistry, presented the invited talk "Photochemistry in Zeolites" at the Gordon conference on Zeolites at Plymouth, N.H., June 10-15. He gave a plenary talk "Solvent Effects in Fast Reactions" at the international symposium on Reactions in Solution of the Royal Society of Chemistry at the University of Kent in Canterbury, England, July 1-16. He gave a plenary talk "Picosecond Studies of the Capture of Electrons in Water Pools" at the meeting Twenty Five Years After the Solvated Electron at Argonne National Lab in Argonne, Ill., July 18.

M. Katherine Tillman, associate professor in the Program of Liberal Studies, lectured and led daily seminars on Newman's Catholic University writings at the international Newman Summer School at Somerville College in Oxford, England, July 15-29.

Arvind Varma, Schmitt professor of chemical engineering, presented a paper titled "Parametric Sensitivity and Runaway in Catalytic Reactors: Experiments and Theory" at the 11th international symposium on Chemical Reaction Engineering held in Toronto, Canada, July 8-11. He presented an invited seminar titled "Combustion Synthesis of Intermetallics and Ceramic-Fiber Reinforced Composite Materials" at the Materials and Components Technology Division, Argonne National Laboratory, Argonne, Ill., July 16.

Dariusz Wilczynski, assistant professor of mathematics, presented the paper "On the Topological Rigidity of Finite Group Actions on 4-Manifolds" at the international conference on the Geometry and Topology of 4-Manifolds held at McMaster University, Hamilton, Ontario, Canada, July 9-20. He gave an invited lecture at the Georgia Topology conference held at the University of Gerogia, Athens, Ga., Aug, 1-5.

Deaths

Guy H. McMichael, associate professor emeritus of management, Aug. 9.

Administrators' Notes

Honors

Howard G. Adams, executive director of the National Consortium for Graduate Degrees for Minorities in Engineering and Science Inc., has been appointed to the Science and Engineering Review Group for the Waste Policy Institute. This group is responsible for helping the Waste Policy Institute provide independent, credible and objective identification, analysis and review of major science, mathematics and engineering education issues confronting the Office of Environmental Restoration and Waste Management of the Department of Energy. Adams is currently a member of the National Advisory Council for Environmental Technolgy Transfer, U.S. Environmental Protection Agency.

Activities

Howard G. Adams, executive director of the National Consortium for Graduate Degees for Minorities in Engineering and Science, Inc., served as a member of the review panel for "Career Access Opportunities in Science and Technology for Women, Minorities and the Disabled Program" of the National Science Foundation in Washington, D.C., May 7-8.

David A. Harr, general manager of the Morris Inn, taught a course titled "Human Relations/Supervisory Development I" to members of the American Culinary Foundation, South Bend Chapter, held in South Bend, Ind., July 16-Aug 20. The class was offered as part of the American Culinary Foundation's Educational Institute Certification Program.

Adele M. Lanan, assistant director of student activities, was an invited guest speaker at the Wisconsin regional conference of the National Association for Campus Activities at the University of Wisconsin in White Water, Wis., April 5-8. She presented "Multiculturalism: The Next Reality" and ran a professional development workshop "The Fine Line Between Advising and Supervising" at that conference.

Marilyn Van Bergen, project coordinator for University Computing, taught a summer session course on Law and Public affairs at Indiana University at South Bend, Ind., May 15-June 18. This course was offered as part of the School of Public and Environmental Affairs program. She gave a summary of the project "Dilemmas in the Ethical Use of Information: A Resource Kit" at the fifth annual Snowmass working session of EDUCOM's Educational Uses of Information Technology at Snowmass, Colo., Aug. 8-11. She is co-chair of that project.

Publication Schedule for Notre Dame Report Volume 20 — 1990-91

Number	Copy Deadline	Publication Date
1	August 15, 1990	August 31, 1990
	August 29, 1990	September 14, 1990
2 3	September 12, 1990	September 28, 1990
	October 3, 1990	October 19, 1990
4 5	October 17, 1990	November 2, 1990
6	October 31, 1990	November 16, 1990
7	November 14, 1990	November 30, 1990
8	November 28, 1990	December 14, 1990
9	January 2, 1991	January 18, 1991
10	January 16, 1991	February 1, 1991
11	January 30, 1991	February 15, 1991
12	February 13, 1991	March 1, 1991
13	March 6, 1991	March 22, 1991
14	March 20, 1991	April 5, 1991
15	April 3, 1991	April 19, 1991
16	April 17, 1991	May 3, 1991
17	May 1, 1991	May 17, 1991
18	May 22, 1991	June 14, 1991
19	June 26, 1991	July 12, 1991
20	July 17, 1991	August 2, 1991
Index	July 30, 1991	August 16, 1991
Vol. 21 #1	August 14, 1991	August 30, 1991

Notre Dame Report Submission Information

Faculty Members (all classes: teaching research faculty, special professional faculty, and librarians and special research faculty) may submit information to be printed in *Notre Dame Report* to the Research Division of the Graduate School, 312 Main Building. Standardized cards are to be used for submissions of Faculty Notes and Current Publications and Other Scholarly Works. These cards are available by contacting the Research Division of the Graduate School (239-7432).

Faculty Notes:

Appointments include only those University appointments such as deans, department heads, heads of committees, public relations and development professionals and advisory council members. This does not include appointments to faculty positions.

Honors is comprised of non-University appointments in one's field and outright honors. It does not include fellowships, grants, etc. Any grants not published in the Awards Received section of the *Report* should be noted in Activities.

Activities must be of a professional and public nature (such as invited lectures and papers read) and should be related to the one's work at the University. Lectures given on campus are only acceptable if they are of a special nature and/or if they are presented to a broader audience than the Notre Dame community. Merely attending a meeting is unacceptable. Information required for each activity submitted includes: name, rank, title of presentation, title of meeting, place and date. No activities are printed ahead of the date, only after the fact. Activities will not be printed over six months out of date.

Current Publications and Other Scholarly Works: Submissions of current publications are due on the Friday prior to the copy deadlines stated on this page.

Administrators' Notes:

Items are accepted from Administrative Staff and follow the same guidelines as Faculty Notes. Standardized cards are available by contacting *Notre Dame Report* (239-5337). Submissions should be sent to 415 Main Building.

Minutes of Meetings:

The only meeting minutes printed in the Documentation section are from the Graduate Council, Academic Council, Faculty Senate, University Committee on Libraries, and Committee on Research and Sponsored Programs. These minutes should be sent to 415 Main Building.

Official University of Notre Dame and Saint Mary's College Joint Academic Year Calendar for 1991-92

Fall 1991 Semester

August 23 Friday Orientation, Enrollment and Registration for New Upper Class and Graduate Students

August 23-25 Friday–Sunday Orientation and Counseling for Freshmen

August 26 Monday Enrollment for all Continuing Students and Freshmen

August 27 Tuesday Classes begin at 8 a.m.

September 4 Wednesday Last date for all class changes

September 15 Sunday Mass. Formal Opening of school year

October 17 Thursday Mid-semester Deficiency Reports due in Registrar's Office

October 19-27 Saturday–Sunday Mid-semester Break

October 28 Monday Classes resume at 8 a.m.

October 31 Thursday
Last day for course discontinuance

November 11-16 Monday–Tuesday Registration for Spring Semester 1992

November 28-December 1 Thursday–Sunday Thanksgiving holiday (Wednesday, November 27 is a holiday at Saint Mary's College) December 2 Monday Classes resume at 8 a.m.

December 13 Friday Last Class Day

December 14-15 Saturday–Sunday Study Days (no examinations)

December 16-20 Monday–Friday Final Examinations

December 27 Friday Absolute deadline for delivery of all grades to Registrar

CLASS MEETINGS

MWF	43	MTuF	43
MW	29	MThF	42
MF	28	TT	29
MTuW	44	TWT	44
MTT	43	TTF	43
MWTh	43	TuF	29
MTh	28	TWF	44

NUMBER OF CLASS DAYS

	Mon	<u>Tues</u>	Wed	Thur	Fri	Total
August	0	1	1	1	1	4
September	5	4	4	4	4	21
October	3	4	4	4	3	18
November	4	4	4	3	4	19
December	2	2	2	2	2	10
Total	14	15	15	14	14	72

HOME GAMES

September 7 - Indiana

September 21 - Michigan State

October 12 - Pittsburgh

October 26 - Southern California

November 2 - Navy

November 9 - Tennessee

Spring 1992 Semester

January 13 Monday Orientation, Enrollment and Registration for all New Students

January 14 Tuesday Enrollment for all Continuing Students

January 15 Wednesday Classes begin at 8 a.m.

January 23 Thursday Last date for all class changes

January 31 Friday
Last date for return of Housing Contracts

February 19-26 Wednesday–Wednesday Enrollment Reservations for the Fall 1992-93

February 26 Wednesday Deadline for 1992-93 Financial Aid Application

March 5 Thursday Mid-semester Deficiency Reports due in Registrar's Office

March 7-15 Saturday–Sunday Mid-semester Break

March 16 Monday Classes resume at 8 a.m.

March 19 Thursday Last day for course discontinuance

March 30-April 17 Monday—Thursday Advance Registration for Fall 1992-93 Semester and for the 1992 Summer Session

April 17-20 Friday–Monday Easter Holiday

April 21 Tuesday Classes resume at 8 a.m.

April 22-24 Wednesday–Friday Room Reservations for the Fall 1992-93 Semester May 1 Friday Last Class Day

May 2-3 Saturday–Sunday Study Days (no examinations)

May 4-8 Monday–Friday Final Examinations

May 12 Tuesday Absolute deadline for delivery of grades for students who are graduating to the Registrar

May 15 Friday Absolute deadline for delivery of all grades to the Registrar

May 15-17 Friday–Sunday Commencement Weekend

CLASS MEETINGS

MWF	42	MTuF	41
MW	28	MThF	42
MF	27	TT	29
MTuW	42	TWT	44
MTT	42	TTF	43
MWTh	43	TuF	28
MTh	28	TWF	43

NUMBER OF CLASS DAYS

	<u>Mon</u>	<u>Tues</u>	<u>Wed</u>	<u>Thur</u>	<u>Fri</u>	<u>Total</u>
January	2	2	3	3	3	13
February	4	4	4	4	4	20
March	4	4	3	3	3	17
April	3	4	5	5	3	20
May	0	0	0	0	1	1
Total	13	14	15	15	14	71

1992 Summer Session

Registration - June 22 Commencement- August 7

The Ethical Dimension of Education at the University of Notre Dame

Presented to Professor Timothy O'Meara, Provost of the University of Notre Dame, May 1990.

The Committee to Review the Ethical Dimension of Education at the University of Notre Dame was chaired by Oliver Williams, C.S.C., associate provost and associate professor of management. Other members included Alan Howard, professor of mathematics; David T. Link, Joseph A. Matson Dean and professor of law; Alasdair MacIntyre, McMahon/Hank professor of philosophy; Richard McCormick, S.J., John A. O'Brien professor of Christian Ethics; Patrick E. Murphy, professor of marketing; Robert P. Schmuhl, associate professor of American studies; Thomas Gordon Smith, professor and chairman of the School of Architecture; James I. Taylor, professor of civil engineering and associate dean of the College of Engineering; María Rosa Olivera-Williams, associate professor of romance languages and literatures; Ricky Battistoni, MBA student, and David Kinkopf, undergraduate student body vice president.

Report of the Committee to Review the Ethical Dimension

Introduction

In October 1989, the Provost appointed a committee to review the ethical dimension of education at the University and make recommendations with regard to ethics in the curriculum and programs of the various departments and colleges. Specifically, the focus of the committee has been to examine how in each of the Colleges and in the Schools of Law and Architecture, at both the undergraduate and graduate levels, we can more effectively:

- a. prepare our students in the area of professional responsibility;
- b. foster collegial discussion of these matters among faculty;
- c. identify appropriate areas for research and/or academic conferences; and
- d. better utilize the availability of our Institutes and Centers.

After meeting numerous times throughout the 1989-90 academic year, soliciting the suggestions of faculty and alumni, and gathering information on the various Institutes and Centers,¹ the Committee offers the recommendations which follow.

¹ Faculty responses to the letter from the Committee, Alumni surveys, and material provided by the Institutes and Centers of the University are available in the Office of the Provost, 202 Main Building.

Section 1: Recommendations Concerning the University as a Whole

1. There should be a statement about what is involved in membership in a Catholic University available to all prospective new members of the Notre Dame community.

The ethical dimension of the life of this university is inseparable from its Catholic character and commitment. But from its earliest days this commitment has been expressed, in part, in an invitation to non-Catholics who share the university's intellectual and moral concerns to join in the work and in the community of the university. And we think it important that faculty, students and other members of the university family should recognize both these aspects of the common religious and moral life of the university: an unconditional Catholic allegiance and an openness to joining with and learning from non-Catholics.

An essential part of the mission of the University of Notre Dame, which touches all faculty, is the commitment to consider the ethical dimension of one's discipline. Candidates for appointment often enquire about what is involved in membership in a Catholic university. We believe that it would be useful if a statement were prepared which could be handed to all such candidates, and which could then provide a basis for further discussion with the relevant department chairperson or dean or member of the Provost's office. The type of statement that we have in mind would perhaps run as follows:

The Statutes of the University of Notre Dame contain the following statement: "The essential character of the University as a Catholic institution of higher learning shall at all times be maintained, it being the stated intention and desire of the present Fellows of the University that the University shall retain in perpetuity its identity as such an institution."

Being a "Catholic institution of higher learning" means that the goals of higher education are pursued within a Catholic context drawing upon a variety of traditions from which over time we have had to learn. This Catholic context roots in the belief that God's fullest self-revelation is Jesus Christ and that "Christ, the one Mediator, established and ceaselessly sustains here on earth His holy Church, the community of faith, hope, and charity, as a visible structure," (Lumen gentium, 8). Obviously, a "community of faith, hope, and charity" inherits and develops over time attitudes and values that sustain its being. These might be called the ethical dimension of the Catholic context, a dimension with a variety of aspects which are shared with many non-Catholics. A university identifying itself as Catholic will

organize and conduct itself in such a way that these attitudes and values are acknowledged, supported, and honored, and their critical appropriation made possible and encouraged throughout university life.

What this means in detail it is neither possible nor desirable to specify for all time. It does mean continuing ethical sensitivity to moral issues that arise within various disciplines. Candidates for appointment who have concerns arising from the Catholic nature of the University or its ethical dimension are encouraged to raise these questions with chairpersons or deans.

2. The University should allocate funds for faculty workshops on ethics and for a clearing house which would be a repository for resources on ethics. Catholic social teaching should be a priority.

We are impressed by the range and diversity of courses, or parts of courses, explicitly concerned with ethics and related subjects, which are now offered in various parts of the university. It is also clear that in courses on literature, history and the social and natural sciences issues with moral import are introduced in a variety of important and instructive ways. But this impressive range and diversity could serve us better than it now does.

What goes on in one department or college for the most part has too little or no relationship to what goes on elsewhere in the university. One negative consequence is that teachers are often unaware of the resources available in other departments and colleges. We would like to see regular opportunities made for systematic discussion between members of different departments and schools on what each has to offer the other and on the ways in which cooperative activity could strengthen course offerings in ethics. Experience shows that this will seldom happen spontaneously, although we are impressed by what has been achieved through faculty discussion in the Ethics Workshop. So we recommend that the university should budget funds for faculty workshops and an ethics clearing house which would serve as a repository for ethical resources for teaching and research.

3. A register of faculty members with a particular expertise in ethics should be maintained in the clearing house.

We believe that the practice of inviting members of faculty who have particular expertise or informed concern in certain areas to visit classes in ethics and make presentations at appropriate points in certain courses should be encouraged. We recommend that a register of faculty members able and willing to do this should be compiled and circulated to all teachers of ethics and other relevant classes.

4. All faculty advising students should consider an ethics course as a top priority for every student.

Although the ideal should be that no student can escape encounter with the systematic and explicit presentation of moral issues, it is quite possible for an undergraduate to spend four years at Notre Dame without ever taking a course in which this occurs. We are not persuaded that this should be remedied in all instances by adding one more requirement to a curriculum already heavily burdened by requirements, but we think that it should be a major aim of the advising system to ensure that, so far as possible, a student is exposed to systemic analysis of moral issues.

5. The Office of the Provost should periodically bring together groups of faculty and those with responsibilities for life outside the classroom, such as rectors, to enhance moral education.

The ethical dimension of an undergraduate life at Notre Dame is curiously bifurcated. On the one hand there is the teaching which occurs in courses. On the other outside the classroom there is the moral education provided by the ethos of life in the residence halls, by the influence of members of the Congregation of Holy Cross and other priests and nuns, and by participation in volunteer work. But what occurs on one side of this divide is rarely brought into connection with what occurs on the other. At its worst—and we do not at all think that the worst is what generally happens—this cannot but produce an unfortunate conjunction of barren moral theory with mindless moral activity. We think it very important that we should avoid any tendency in this direction by arranging for meetings at regular intervals between those engaged in classroom teaching and those, such as rectors, with responsibilities for life outside the classroom. This too will require action from above to bring together two groups who will otherwise remain relatively isolated from each other.

6. All seniors should be invited to attend a two-day ethics workshop to be held at the beginning of the senior year.

We believe that students need to be provided with an opportunity to take stock of what they have learned about ethics theoretically and practically and of the bearing of theory upon practice and practice upon theory during their time at Notre Dame, so that they may summarize and focus upon the essentials of what they have learned. A small-scale survey of alumni revealed a prevalent inability to recall specifics and particulars of what they had learned of ethical relevance while at Notre Dame (see Appendix C). We think that this inability would be a good deal less prevalent if such an opportunity were to be provided.

We, therefore, recommend that at the beginning of their senior year undergraduates should be invited to attend a two-day ethics workshop in which students would meet in small groups, with appropriate leadership by faculty and hall rectors (we emphasize these latter here in accord with our remarks under recommendation no. 5). The aim would be to discover how far they could bring to bear what they had learned about ethics from a variety of sources upon issues posed by case-studies of particular real or realistically imagined situations. Such case studies would be chosen with a view to inviting students to consider what resources they have to answer such questions as: What are the morally relevant concerns when a child or children weigh the decision about putting a parent in a rest home? What are the key moral issues when a breadwinner (husband or wife) weighs the desirability of a job change that will double salary but keep the person away from the family for greater lengths of time? What range of people may be wronged if one cheats in one's business or professional life, and why? What is the difference between a tolerable and an intolerable negotiated compromise on some issue of moral importance? These are, of course, only examples of such questions.

We recognize the difficulties and the costs involved in organizing such workshops regularly and successfully. We still, however, recommend this as a worthwhile undertaking that would be of potentially lasting value.

7. Moral questions raised by issues of gender and race are questions for the whole university and we would hope for a serious consideration of them, whenever relevant, in all the particular contexts about which we make specific recommendations.

These are questions which are central to the operation of the university as well as to our teaching and learning.

8. The Alumni Continuing Education Program should continue and expand its focus on ethical concerns.

Alumni Continuing Education offers non-credit programs that encourage intellectual dialogue between alumni and friends of the University with distinguished members of the University, outstanding graduates of Notre Dame or with specialists from other institutions. Selection of programs reflect the unique strengths of Notre Dame: leadership in church issues, family life, ethical concerns, contemporary social problems, political questions, spiritual life and the liberal arts. In the last few years the programs in legal and medical ethics have made remarkable strides and we urge that they continue and be expanded to include the other professions. (For a summary of Notre Dame alumni opinions on ethics, see Appendix C).

Section 2: Recommendations Concerning the College of Arts and Letters

Although the College of Arts and Letters already has a notable emphasis on the ethical dimension in its varied courses and programs, the committee offers the following recommendations:

- 1. Following the mini-course for seniors recommended above (see Section 1, Recommendation Number 6), there should be an optional continuation of that course, perhaps through informal groups at the homes of professors. Related programs, such as visiting lecturers, might be sponsored by the Arts and Letters College Fellow; the Reilly Center for Science, Technology and Values; the Helen Kellogg Institute for International Studies; the Institute for International Peace Studies; and the Center for Social Concerns.
- 2. Both individual teachers and departments should be encouraged to review their syllabi and curricula to ensure that, wherever relevant, points of view, subject-matters and issues whose significance for women and minorities make them significant for all of us should be given due recognition. There may be a need to develop specific programs, perhaps summer workshops, to assist Arts and Letters faculty in integrating issues of gender, race and the ethical dimension into their teaching and research.

To a considerable degree, the teaching and research about ethics that takes place in the College of Arts and Letters provide the academic foundation for the University's work in moral inquiry and formation. Throughout the College—in undergraduate and graduate classes as well as in research conducted by individual faculty members—ethical questions and issues receive sustained attention, no matter the discipline. The ethical choices confronting a character in a novel, a public figure (past or present), or an editor deciding treatment of controversial story are not only relevant subjects to consider but central concerns.

The Departments of Romance Languages and Literatures, German and Russian, and Classical and Oriental Languages and Literatures broaden students' understanding of ethics by teaching the different perspectives in which foreign authors and thinkers approach truth and special and unusual values.

Work carried out in the Departments of Philosophy and Theology provides the cornerstone for the College's orientation to pursue ethical inquiry on the theoretical, historical and practical levels. In Philosophy, for example and to be highly selective, there are specific courses devoted to the study of "Ethics and Business," "Medical

Ethics," "Philosophy of Law," "The Political Ethics of Plato and Aristotle," "Contemporary Ethical Theory," "Rival Historians of Ethics," and "Problems in Applied Ethics." In Theology, and again to select just a few offerings, there are courses that focus on "Christian Ethics," "Corporate Conscience," "War, Law, Ethics," "Religious Ethics in Democratic Society," "Social Ethics," "Ethics: Family," and "Ethics: Biomedical Issues." The diversity and comprehensiveness of dealing with ethics in teaching and research are identifying characteristics of the two departments and help create a university-wide framework for ethical deliberation.

Teaching and research carried out in several other departments in Arts and Letters broaden and enhance the College's ethical focus and orientation. The Program of Liberal Studies includes detailed consideration of ethical problems as part of its Great Books curriculum. The Department of Economics has as a continuing priority the investigation of questions of morality and justice related to development, especially in the Third World. The Department of Government and International Studies addresses the ethical implications of political conduct and governance, nationally and internationally. Throughout the College, normative concerns permeate the factual, in some cases quantitative, material dealt with by the faculty and students.

Sophomores in Arts and Letters are required to take a "Core Course," titled "Ideas, Values, Images," which is an interdepartmental offering to introduce students to perennial human problems and fundamental concerns of moral thought and action.

Interdisciplinary concentrations within the College help to keep ethical inquiry as a primary undertaking in Arts and Letters. "Science, Technology and Values" explores science and technology as human enterprises, where values are fundamental. "The Hesburgh Program in Public Service" seeks to develop sensitivity to ethical issues as a dimension of policy-making and administration. The concentration "Philosophy, Politics, and Economics" fosters integration of the study of subjects where ethics, politics, and economics intersect and overlap.

In the light of this wide-ranging influence of the ethical dimension in the curriculum and programs of the College, we still believe that the two-day workshop discussed above (Section One, Recommendation 6), and its optional continuation during the senior year, will add much to the ethical education of our students. In all of this, issues of gender and race must be recognized as contributing to the ethical imperatives of our time and circumstances, especially in the light of our own history and tradition.

Section 3: Recommendations Concerning the College of Business Administration

1. All undergraduate students in the College of Business Administration ought to be required to take at least one course focusing on the ethical dimensions of business.

The question is not *if* ethics should become an integral part of the experience of College of Business Administration students, but rather *what* to do and *how* to do it effectively. The external world already perceives Notre Dame as a leader in this area. For example, a ranking of business schools by *Business Week* said "...the University of Notre Dame prides itself on its commitment to ethics" (October 30, 1989). Furthermore, a recent evaluation by *U.S.News and World Report* on the best professional schools indicated that "greed is out and ethics is in" for the nation's business schools.

The current situation with respect to ethics within the College of Business Administration was assessed in a survey of the faculty in December 1989. A minority of the faculty have integrated ethics into their courses (see Appendix A). There appears to be good representation across the undergraduate courses in the four departments and within the MBA classes in the College. The predominant view of the Business faculty is that ethics should be integrated into courses and a separate course on ethics should also exist.

There are several routes that might be explored to provide ethics courses for undergraduates. The first two suggestions are possible options for a required course while the third suggestion is for elective courses in business ethics.

- a. Courses Provided by the Philosophy and Theology Departments. Some students in the College of Business Administration now take a course in business ethics as one of their required courses in either the philosophy or theology departments. Having all students in the College follow this option would entail adding sections in one or both of these departments, since at present there are far too few sections. The possibility of team teaching these courses with faculty from the College of Business Administration is worth exploring.
- b. Sophomore Core Course in the College of Business Administration. An alternative that seems most feasible and attractive to meet our needs is to have a Sophomore Core Course for the College of Business Administration. The objective of the course would be to assist students in developing an appreciation of the crucial role of business in our society by a series of readings, lectures and discussions. Using literature, business history and a

focus on ethical reasoning and virtue, the course would be required for all sophomores and taught by tenured faculty in the College and qualified graduate students.

- c. Elective courses in the College of Business Administration. Each of the functional areas of business administration (accounting, finance, management and marketing) could develop an upper division elective course focusing on the ethical issues in the area. Faculty already in the departments could offer these courses with some assistance from an ethicist.
- 2. The MBA program ought to build on the sound ethical basis provided by the one required course in ethics now in the MBA curriculum and explore ways to integrate an ethical dimension into the other major courses of the functional areas. This may require summer workshops for faculty.

There are three dominant models for integrating the ethical dimension into the major courses of MBA programs: the Harvard Model, the Wharton Model and the University of Washington Model. While each of these has its own strengths and weaknesses, our faculty should have the opportunity to learn their merits through workshops or other appropriate vehicles. One of these models, or some combination of them, should become an integral part of the Notre Dame MBA curriculum. In brief, the three alternatives are as follows:

- a. *Harvard Model*. Following the Harvard Model, the program would begin with an intensive nine session ethics course compressed into the first week of class at the beginning of the MBA program.
- b. Wharton Model. Following the Wharton Model, ethics would be integrated into the required functional area courses.
- c. Washington Model. Following the University of Washington Model, there would be a one credit course that discusses the ethical issues entailed in the major courses that students are currently enrolled in. This one credit offering is taught on Fridays, a day on which there are no other offerings.
- 3. The Center for Ethics and Religious Values in Business in the College of Business Administration ought to receive additional funding so that it might be a resource in ethics for the College.

Resources such as a library of cases and video materials readily available to faculty would assist the development of the ethical dimension in course teaching. Also, the Center should have a budget to invite practicing managers to campus to discuss ethical issues. There should be an

annual series of lectures on business ethics by speakers who would have ample time to discuss and interact with students.

Section 4: Recommendations Concerning the College of Science

1. We recommend that all the faculty of the College of Science make a decided effort to include ethical considerations in the subject matter of their courses, and we encourage them to involve other agencies of the university, such as the Reilly Center for Science, Technology and Values and the Institute for International Peace Studies, in this effort.

The degree to which science influences both our public and private lives and the great difficulty faced by laymen, no matter how well educated, in understanding its content and ramifications have imposed a terrible burden of trust on scientists. Given this responsibility it is imperative that a College of Science, particularly one in a university that is religiously based and concerned with transmitting values, give careful consideration to the ethical content of its curriculum.

The ethical dimension of scientific education has two aspects. The first of these involves what might be termed the "outward" face of science; that is to say, the social implications of scientific discovery and the moral questions they engender. One has only to think of the progress made in the last decade in genetic engineering to appreciate the scope and complexity of the issues that may arise. In this regard the committee undertook a survey of the courses presently offered in the College of Science, and we found a number of them, some for majors and some for non-majors, that addressed ethical questions involving societal attitudes and public policy. The subject matter of these courses included such topics as ecology, genetics, environmental chemistry, energy and nuclear warfare. For example, courses, such as the following, already include an important ethical dimension:

Biology 101	Human Genetics, Evolution & Society
Biology 412	General Ecology
Biology 420	Aquatic Ecology
Biology 426	Fundamentals of Human Genetics
Chemistry 102	Survey of Chemistry
Chemistry 204	Environmental Chemistry
Physics 104/204	Energy and Society
Physics 205	Nuclear Warfare

The faculty members we interviewed in the course of this survey were uniform in emphasizing the pains they took to avoid proselytizing or presenting value judgments *per se;* but there was a consensus that part of the purpose of such courses is to increase the level of awareness of the

ethical issues involved, to give students the scientific underpinning for making value judgments, and to make them aware that science is not a value-free activity.

It is with this in mind that we recommend that the faculty of the College of Science maintain and expand this effort to explore, in a way consistent with the important principle of scientific objectivity, the ethical considerations inherent in the subject matter of their courses; and we encourage them to involve other agencies of the university, such as the Institute for Peace Studies, in this effort. There is at present at least one course in physics that is cross-listed with that institute, and several of the science faculty are members of the institute. We recommend that such contact be enhanced wherever possible.

2. We recommend that the recent ethics publication by the National Academy of Sciences, On Being a Scientist, be purchased for all faculty and students in the College and that appropriate opportunities for discussion of this booklet be provided.

The second context in which ethical issues arise in science is methodological and involves the obligations that scientists owe to the enterprise itself and to their colleagues. In addition to such obvious moral considerations as the avoidance of plagiarism and falsification of data, there are subtler ethical issues that involve such things as the responsibilities of joint authorship, the objectivity of peer review and a host of others. These questions are well delineated and discussed in some depth in the booklet *On Being a Scientist*, published by the Committee on the Conduct of Science of the National Academy of Sciences.

There is not at present any formal mechanism within the College of Science for addressing these matters, nor do we recommend that any be instituted. Our interviews with members of the science faculty revealed an overwhelming consensus against the establishment of any courses or requirements involving ethics within the College of Science. Indeed, the difficulty of staffing such a course without sacrificing standards of professional competence appears to be insurmountable to many faculty. The scientists we interviewed felt that behavior is largely taught be example, and that the best way to inculcate our students with a sense of ethical responsibility is to continue to provide, via the appointment and tenure process, a faculty of scientists who will serve as role models.

We do, however, suggest some steps to enhance the awareness and discussion of ethics as an integral part of the scientific life. First, we recommend that the College of Science procure enough copies of the aforementioned booklet On Being a Scientist to provide one to each faculty member and graduate student in the college. Second, we recommend that the faculty be encouraged to distribute

copies of the booklet to their undergraduate classes as supplementary material, particularly in introductory courses for majors; and, if appropriate, to allow some time for discussion of the issues raised in the booklet. A similar practice, using the booklet *Honor in Science*, published by Sigma Xi, The Scientific Research Society, was successfully done in certain biology courses in the past.

3. We recommend that all undergraduates in the College of Science be encouraged to fulfill part of their philosophy and/or theology requirements with courses in ethics, especially courses which consider the ethical dimension of science.

At present this policy is implemented in the case of Preprofessional students who are directed toward a course in medical ethics taught in the department of theology. Over 80 percent of the Preprofessional majors take a course in Medical Ethics (THEO 266) which counts toward fulfillment of their university requirement in theology. Identification of other suitable courses would, of course, require the cooperation of the departments of philosophy and theology, but we have no doubt that this cooperation can and should be secured.

Section 5: Recommendations Concerning the College of Engineering (The School of Architecture is Considered Under Section 6)

1. All undergraduate students in the College of Engineering ought to be required to take one course focusing on the ethical dimensions of engineering.

The only course currently offered in the College of Engineering that deals explicitly and exclusively with ethics is EG 491, "Values, Culture, and Standards." This is a one-credit course, and the enrollment has varied from approximately 40 students per semester to as few as four. In general, the course consists of presenting case studies to the students, having them prepare reflection papers, and then holding small group discussions of the cases and the papers. The course has been offered nearly every semester for approximately 10 years.

One reason the enrollment has declined in EG 491 recently is that much of the material has now been incorporated in CE 450. This is a regular three-credit course that counts as a technical elective for students in any of the departments in the College of Engineering. The "ethics" topics constitute roughly one-third of that course, the other two-thirds being devoted to engineering law and engineering management principles.

Responses to a recent faculty survey designed to determine the attention currently being given to ethics issues in the College of Engineering (see Appendix B) suggest that the

only other course which treats the ethical dimension of engineering in any depth is an aerospace design course. This course is taken by all seniors in Aerospace Engineering, but not by other students in the College. In that same survey, 22 other courses are mentioned as including some treatment of ethics. In most cases, however, the "ethical dimension" is integrated into discussions of design rather than as an independent topic.

Considering the magnitude of responsibility for the common good assumed by engineers in our society, we recommend that all undergraduate students in the College be required to take one course with a focus on the ethical dimension. There are a number of ways this course might be construed, including:

- a. Expanding EG 491 to a three-credit course and making it required for all students in the College of Engineering. We, however, recognize that there may be difficulties in doing this and that only the faculty in the College of Engineering will be able to identify the problems adequately. We ask them to investigate seriously this option.
- b. Replacing one of the required theology/philosophy courses with a course in engineering ethics team-taught by faculty from both the College of Engineering and the Departments of Theology and/or Philosophy.
- 2. We recommend the founding of a Center for Ethics and Engineering in the College which would serve as a clearing house for engineering ethics resources and as a focus for ethics related activities. This Center would work in cooperation with the Reilly Center for Science, Technology and Values as well as other appropriate Centers and Institutes at the University.

The faculty survey indicates an interest in pursuing some ethics related activities but these may require some leadership and direction that a focal point such as a Center might provide. Activities such as the following would enhance the ethical dimension of engineering education.

- a. Monthly seminars treating topics in engineering ethics. This seminar series could help the faculty become more familiar with the relevant theories of ethics, and the techniques for "applying" them to technical dilemmas.
- b. Preparation of case studies for use in the classroom. The survey indicates that many faculty members would like to use case studies, but often they do not know where to obtain them. It is important that these case studies be personal and immediate. The real crunch in most ethical behavior dilemmas comes at the gut level—it is easy to say what should be done when one is detached

from the situation, but another story when one has personal gain or loss at stake (where "loss" can be personal relations, stature, etc., not just money).

- c. *Preparation of a list of resources*. Thirty-eight of the 45 faculty members responding to the survey indicated they are not aware of resources available for teaching engineering ethics.
- d. *Presentations by outside speakers*. The College and the student chapters of the various professional societies should invite outside speakers who can present real-life ethical dilemmas in engineering and architecture practice.

Section 6: Recommendations Concerning the School of Architecture of the College of Engineering

1. We recommend that a faculty seminar be instituted in the School of Architecture with the purpose of developing a common vision among the faculty on how best to raise and promote ethical discussion in the various courses.

The Architects' role as public and private servant places him or her in a position of decision making that frequently has ethical implications. As a player in the coordinated efforts of engineers, builders, and public agencies, the architect is often the spokesperson who most frequently articulates and directs discussion.

The effect of building projects on the environment, on the social interaction of people and even the sensitive area of aesthetic impact, requires that the architect be able to recognize and evaluate issues that are not always obvious but do have an ethical dimension. Far too often, one hears architects complaining that they are helpless in their course due to the red tape of bureaucracy or economic pressures from the client. These difficulties are not new to practice, although with greater public involvement, perhaps there are more hurdles to jump in seeing a project realized. None the less, the persistent resolve of an individual is necessary to get projects complete. In addition, the recognition of ethical problems depends on the quality of individuality.

The following reflects the current status of teaching ethical issues in the School of Architecture and suggest areas for further development. Courses currently being offered include:

a. Arch 241 — Environmental Studies. The course provides exposure to ethical obligations of the architect, especially in regard to environmental issues. Within the course, students undertake an experiential service component which emphasizes the service aspect of architecture. Students are exposed to the needs of the

less fortunate, including an awareness for the architect's "option to work with the poor." The professor is aided by fourth and fifth year teaching assistants who take a concurrent seminar that explores the issues more deeply.

b. Arch 546 — Professional Practice. The course develops an understanding of the development of a design project from the initial phase of client contact through execution of construction documents. It employs a surrogate approach compressing a lengthy project into a semester. The professional American Institute of Architects documents and forms are introduced. Issues involving the architect as developer are also discussed with the ethical issues of this role considered. From this material, the course inherently deals with ethical issues. To improve the ethical component, we must explore ways in which case studies can be further incorporated to stimulate discussion and to help students apply a method of analysis in evaluating similar situations later in professional life.

Our design courses are beginning to include a lecture component in addition to the traditional studio/section orientation. This provides us with an opportunity to present ethical issues to the class at large in the context of the most integrative classes we offer. A faculty seminar would assist in developing a common framework to discuss the ethical dimension with the students.

In the fourth year design course, Arch 444, the problem of designing a sky-scraper for Chicago has traditionally been assigned. Some professors have developed discussions regarding the moral questions involved with advocating this potentially destructive type of building—especially as they become bigger and not only accommodate more people, but are imposed even more aggressively on the surroundings.

Within the architectural profession, debate over conflicting philosophies of design often takes on a misleadingly moralistic tone. This issue should be discussed so that students can distinguish between these opinions and ethical dilemmas. Issues surrounding the questions of authorship and plagiarism in design must also be discussed. The issue becomes more delicate and complex because teaching in architecture is increasingly based on imitations of traditional paradigms—but the ultimate goal is to encourage individuality and independence.

2. All fifth year students in the School of Architecture should have a two-day workshop focusing on the specific ethical issues confronting architects.

The class years in the School of Architecture develop an unusually high degree of interdependence due to the studio project format of teaching and the tendency to work together for long hours. The students' year in Rome tends to increase this interdependence, due to cultural isolation and the impact of this experience in developing maturity and responsible attitudes. In this light, we must develop the students' consciousness of ethics more during the fifth year.

The proposal for a university-wide two-day ethics workshop would be a valuable addition for our fourth year students. During their fifth year, a similar two-day workshop focused on specific dilemmas faced by architects would be an appropriate way to reinforce awareness of these issues.

Section 7: Recommendations Concerning the Law School

1. We recommend that the first-year ethics course in the Law School be given more status and class time, perhaps by increasing the credits for the course from one credit to three credits.

The Law School curriculum at Notre Dame is based on a two-faceted mission statement that the faculty developed in 1974. Moral values are central to both facets: (1) to be an outstanding teaching school that prepares competent and compassionate attorneys whose decisions are guided by the values and morality that Notre Dame represents; (2) to promote leading contributions to the development of the law, the system of justice, the legal profession, and legal education, through faculty scholarship and institutional projects that embody important qualities of the Notre Dame value system. We intend to dedicate as much intensity to sensitizing our students and other scholars to the many ethical dilemmas that lawyers and clients face as we do to teaching and scholarship on substantive or procedural issues. The Notre Dame Law School has taken Law and Ethics as its main theme. Creating a course of study that is permeated by Law and Ethics is a difficult task, however, because the curriculum must still give substance and procedure thorough treatment, and it must also explore other philosophies of law along with the main institutional theme.

If a school is to accomplish all of its curricular goals, most courses must serve more than a single purpose. The Notre Dame plan turns this necessity into a distinctive choice: we expect the entire faculty to find the time to explore the ethical dimensions of their subjects. This is referred to as the pervasive method of teaching legal ethics. Because the pervasive method alone might fail to cover all aspects of ethics and law, we created three new required courses: a first-year legal ethics course; a jurisprudence course (a requirement that several options fulfill); and a third-year applied-ethics course. The jurisprudence courses explore a number of the philosophies of law. The third-year ethics

course (1 credit) focuses on practical ethical questions: How does the practitioner recognize an ethical dilemma? What can be done about it? What rules and theories apply? Assignments requiring such techniques as time keeping and journal preparation introduce third-year students to how a responsible practitioner might organize a law practice.

Thus, the first-year ethics course has its significance within the framework of the pervasive method and the required jurisprudence and applied-ethics courses. The pervasive method ensures the teaching of ethics in relation to each of the traditional subjects. The first-year ethics course is designed to do something else. It is a theoretical course that emphasizes that ethics has an existence and nature independent of its application. Studying ethics is in itself every bit as important to the law graduate as learning contracts, torts, procedure, criminal law, or property. It is with all of this in mind that we make the recommendation to increase the class time and credits for the course.

2. We recommend that the programs of the Center for Civil and Human Rights and the Thomas J. White Center on Law and Government be given more prominence in the undergraduate colleges, especially the College of Arts and Letters.

Lectures and conferences convened by the two major Centers of the Law School may have much value for many of the students in ethics courses throughout the University. With a clearing house (Section 1, Recommendation Number 2), and with programs and courses such as the ones described above (Section 2, Recommendation Number 1), these Centers can and should play an increasingly prominent role in the education of our students.

Appendix A

Report on a Survey of All Faculty in the College of Business Administration

Thirty-eight of the 83 College of Business Administration faculty responded to the Faculty Survey. Over 70 percent of those responding have included ethical issues in their recent classes. At least four different undergraduate classes were mentioned for each department. Twelve MBA classes were also singled out. When asked about the role of ethics in Business classes, the responses were similar for the undergraduate and MBA, 2.2 and 2.0 respectively, on a 5 point scale where 1=major role.

There appears to be a strong sense by those responding that ethical issues should be integrated into the business curriculum. Ten of the respondents stated that it should be integrated into all Business courses and 12 felt that it should be both integrated and included in a separate course. The role of speakers from business garnered some support from the respondents, with slightly more emphasis being placed on the MBA program (question 6).

Twenty-one of those responded said they wished to learn more about how to bring ethics into their classes (an additional eight answered "don't know"). The best time appears to be during the summer and several mechanisms for transmitting ethics information received support (case examples—13; seminars—12; 10—informal get-togethers). A majority of the responding faculty are not aware of resources available for teaching in this area.

One final point that should be made is that there appears to be *resistance* to integrating ethics into all Business courses by a sizable percentage of our faculty. One interpretation of nonresponse to this survey is lack of interest or support for this idea.

Faculty Survey

1. Do you include ethical (defined as a discussion of moral choices) issues in your classes this year (or in previous two years)?

28 Yes 10 No

If yes, which course numbers?

The 38 faculty returning the survey listed 44 courses which include ethical issues.

Courses listed are:	5. Are you aware of resources (texts, cases, videos, etc.) available for teaching in this area?		
Acct - 231, 234, (2), 371, 476 (2), 480, 481 Fin - 360 (2), 376 (2), 479, 554 Mgt - 231 (2), 351, 373, 454, 472	21 No 14 Yes —Describe the content and source of the ones you would recommend		
Mktg - 231 (4), 350, 384, 476 MBA - 231 (2), 553, 564, 582E, 612, 628, 632, 636, 639, 643, 647, 653, 669, Macroecon MSA - 545	6. What role should speakers from business play in bringing ethics into our classes?		
BA - 490	Major role Minor role No role Undergraduate 1 (6) 2 (9) 3 (13) 4 (3) 5 (4) 2.7		
2. What role do you think the topic of ethics should play in College of Business Administration classes? (circle the	Undergraduate 1 (6) 2 (9) 3 (13) 4 (3) 5 (4) 2.7 MBA 1 (10) 2 (8) 3 (10) 4 (2) 5 (4) 2.5		
numbers that reflect your position)	7. General Comments about the role of the professor in discussing ethics in the College of Business (e.g., role		
Major role Minor role No role Undergraduate 1 (9) 2 (20) 3 (5) 4 (2) 5 (2) 2.2	model, mentor, advisor, etc.).		
MBA 1 (12) 2 (15) 3 (6) 4 (1) 5 (2) <u>2.0</u>	8. Your Department and years at Notre Dame.		
(The number in parenthesis is the number of faculty who circled at that level.)	8 Accountancy 9 Management 11 Finance and Business Economics 20 5 or less 9 6-10		
3. In your view, should a discussion of ethical issues facing managers regarding the functional areas (accounting, finance, marketing, etc.) be: (check one)			
7 Integrated into the required functional area (core) courses	3 11-20 3 21 or more		
 10 Integrated into all Business courses 8 Discussed exclusively in a separate ethics course 12 Both integrated and in a separate course 1 None of the above 2 Other 			
4. Do you wish to learn more about how to bring ethics into your courses?			
<u>21</u> Yes <u>6</u> No <u>8</u> Don't know			
If yes, when would be the best times and ways to do it? (check one or more from each column)			
9 In the summer 1 Between semesters 4 Once a month 0 Other			
 10 Informal get-togethers 12 Seminars with presentations 6 Speakers from outside our college 13 Distributing "case" examples 1 Other process specific information 			

Appendix B

Report on a Survey of All Faculty in the College of Engineering

The results of the faculty survey indicate that approximately 40 percent of the faculty answering the questionnaire do address ethical issues in their courses. Approximately 60 percent of the full-time teaching and research faculty returned the questionnaire.

The second question in that survey addresses the appropriateness of including ethics within College of Engineering classes. In general, the faculty feel these topics do merit some attention, but they do not come out strongly in favor of a "major role." There is more support for including these topics in the undergraduate courses than in the graduate courses.

Roughly half of those who responded to the survey indicated that they wished to learn more about how to bring discussions of ethics into their courses, while half indicated they were not so inclined (and this does not include the 40 percent of the faculty who did not respond to the survey).

A request for general comments about the role of the professor in discussing ethics in the College of Engineering resulted in the following types of comments and suggestions:

Specific calls for integration of ethics topics in all courses, or at least certain courses within the College curricula.

Greater use of case studies in the engineering classroom.

A feeling that the topics should be addressed primarily as opportunities present themselves—in and out of the classroom, in "informal" discussions.

Faculty members can make their best contribution by being ethical in their dealings with students—serving as a "role model."

That it is not feasible to discuss these matters in engineering classes, or at least that it is difficult to do so in a "natural way." Several feel they already have too much material to cover in the technical courses.

That it is not appropriate to discuss these matters in engineering courses.

That it is irrelevant!

The survey also indicates that the majority of the faculty responding believe that ethical issues facing engineers and architects should be addressed in a separate ethics course (not to the exclusion of integrating ethics discussions in the regular courses, but in addition to).

College of Engineering

Results of Faculty Survey

1. Do you include ethical issues (defined as a discussion of moral choices) in the classes you teach this year (or in the previous two years)?

Yes (18)* No (27)

If Yes, which course numbers?

AE 240, 241, 441, 442L ARCH 144, 251, 443, 444, 543, 545 CHEG 447 EE 361, 476, 498B EG 491 ME 241, 339, 342, 348, 439, 448 *A few indicated "Yes," but did not list specific courses.

2. What role do you think the topic of ethics should play in College of Engineering classes? (Circle the numbers that reflect your position.)

 Undergraduate
 Major role
 Minor role
 No role

 1 (6)
 2 (11)
 3 (16)
 4 (7)
 5 (3)
 2.8

 MBA
 1 (5)
 2 (9)
 3 (10)
 4(10)
 5 (8)
 3.2

(The number in parenthesis is the number of faculty who circled at that level. The underlined number is the mean score.)

- 3. In your view, should a discussion of ethical issues facing engineers and architects be: (Check one.)
- (6) Integrated into the required Department or School (core) courses
- (6) Integrated into all Engineering and/or Architecture courses
- (10) Discussed exclusively in a separate ethics course
- (16) Both integrated and in a separate course
- (4) None of the above
- (3) Other: Design components only
 In each course as appropriate
 In selected courses

4. Do you wish to learn more about how to bring discussions of ethics into your courses?

Yes (21)

No (16)

Don't know (6)

If Yes, when would be the best times and ways to do it? (Check one or more from each column.)

- (4) In the summer
- (4) Between semesters
- (9) Once a month
- (5) Other
- (10) Informal get-togethers
- (18) Seminars with presentations
- (10) Speakers from outside our College
- (13) Distributing "case" examples
- (0) Other process specific information
- * Department Meetings
- * Twice a semester
- 5. Are you aware of resources (texts, cases, videos, etc.) available for teaching in this area?

No (38)

Yes (7)

Tapes/books from NIH and ASHRAE
AIA Guidelines on ethics in practice of Architecture
Some limited case studies
Martin and Schinzinger textbook
Power of Ethical Management; Blanchard and Peale (text
and tapes).
Gilbane Gold (videotape)

6. What role should speakers from engineering and architecture practice play in bringing ethics into our classes

Major Role Minor Role No Role Ave.

Undergraduate 1 (8) 2 (9) 3 (21) 4 (4) 5 (2) 2.6 Graduate 1 (5) 2 (9) 3 (16) 4 (6) 5 (6) 3.0

7. General Comments about the role of the professor in discussing ethics in the College of Engineering (e.g., role model, mentor, advisor, etc.).

Not feasible to discuss ethics on regular basis in most classes.

Discuss moral/ethical role in establishing codes. Emphasize the "hard choices" that must be made; bring in case studies.

Stimulate conversation when opportunities arise. Informal discussions and role model best—may be too "preachy" in the classroom.

Should be discussed at College Council and Department Meetings.

In class, stress that ethics involves choices and consequences.

Seems very difficult to incorporate these ideas in a natural way.

Professional societies (student chapters) should play a major role here by inviting outside speakers to address these topics—better than discussions in class. Irrelevant!

Required course should replace current theology/philosophy. Keep it *out* of technical courses.

- 8. Your Department (School) and years at Notre Dame.
- (17) Aerospace and Mechanical Engineering
- (4) Architecture
- (2) Chemical Engineering
- (5) Civil Engineering
- (15) Electrical and Computer Engineering
- (0) Materials Science and Engineering

5 or less (16) 6-10 (6) 11-20 (10)

21 or more (13)

Appendix C

Summary of Notre Dame Alumni Survey on Ethics

- 1. Over 200 five-page surveys were sent out in early 1990. Ninety-seven were returned. Those that were returned were filled out conscientiously.
- 2. About 98 percent characterized their knowledge or ability to resolve an ethical problem as good or excellent, the majority as excellent.
- 3. Relatively few identified Notre Dame influences on their moral capacities either very strongly or with any clarity. Very few specifics are recalled.
- 4. When Notre Dame is said to have had an influence, it is that of Religious (priests/brothers/sisters) or of other students which is largely referred to. References to faculty or to courses are much rarer.
- 5. The open-ended questions were answered in interesting ways, often with suggestions which have much merit. For example, question 21 of the survey asked the following question: IF YOU WERE TO GIVE US TWO POINTS OF ADVICE FROM YOUR PERSONAL OR PROFESSIONAL EXPERIENCE ON HOW TO IMPROVE THE LIKELIHOOD THAT CURRENT AND FUTURE NOTRE DAME STUDENTS COULD BETTER HANDLE ETHICAL ISSUES, WHAT WOULD THEY BE? A sampling of the answers is as follows: (Year of graduation and major is indicated in parenthesis).
 - a. More emphasis in course work outside of theology, particularly in the *later* part of undergraduate study. Seminars, lectures, etc., focusing on ethical issues that arise in personal and professional life—perhaps a festival similar to the Sophomore Literary Festival with guest speakers and workshops. ('83, American Studies)
 - b. Require one of the philosophy/theology requirements to be an ethics course/seminar with off campus projects. Offer more courses in professional ethics, that is, business and legal ethics. ('78, Economics)
 - c. Create a Business Ethics course in the business school and make it required. In fact, create an ethics course in each college, tied to *that particular college*, that is *required* for all students. ('63, Economics)
 - d. Utilize more case study forms of education and provide a lower student-faculty ratio so more small classes can be available to students. ('62, Modern Languages)

- e. Invite business people in to talk to students about real life situations they have faced, and what they and/ or their businesses did about them. Develop a sensitivity to doing the right thing and demonstrate how such a philosophy leads to success in the long run. ('51, Mechanical Engineering)
- f. Provide faculty members time to interact with students. Don't expect students to know professional ethics from their family lives. Encourage discussion of the many minor ethical issues one may face as a preparation for addressing the few major ones to be encountered. ('55, Civil Engineering)
- g. Ethics courses should include ample time for discussion. Encourage students to *think* about *their* morals. Have former students and others who are currently in the professional world come to the classroom as guests. They can discuss *real life* ethical situations that must be faced in the profession. Encourage students to think about actual decisions they *will be* faced with. ('77, Marketing)
- h. In ethics courses I would suggest role playing and case studies of ethical issues. Values clarification courses and seminars as well as a focus on self-awareness are valuable. ('58, Business Administration)
- i. Continue medical ethics courses for those entering the profession. ('85 Science-Preprofessional)
- j. Require business students to take a business ethics course in seminar format where they are required to deal with real life scenarios. Offer more courses in ethics. This was a strong interest of mine but few courses were offered and the best ones were only open to certain majors. ('85, Accounting)

The Graduate School

Zahm Research Travel Fund Awards for 1989-90

The Graduate School announces the following awards from the Zahm Research Travel Fund for the period July 1, 1989, through June 30, 1990.

- Maria S. Aguirre, Department of Economics. Parallel Sector for Dollars and Domestic Currency in Argentina and Its Effects on the Demand and Supply of Credit. Argentina. \$1,000.
- German Creamer, Department of Economics. Evolution of the Ecuadorean Economy in the Period 1982-1988. The Netherlands. \$1,300.
- Richard R. Gaillardetz, Department of Theology. The Ordinary Universal Magisterium of Bishops. Italy. \$800.
- Anthony R. Gangloff, Department of Chemistry. Synthetic Organic Methodology. Sweden. \$800.
- Henry B. Kreuzman, Department of Philosophy. Established Techniques for Doing Citation Analysis. Philadelphia. \$377.
- Shensheng Liu, Department of Sociology. The Assembly Industry in Mexico. Mexico. \$500.
- Reverend Patrick A. Malloy, Department of Theology. The Shifts in Piety Implicit in the Evolution of the Editions of the *Manual of Prayers*. England. \$1,100.
- Pawitterjit S. Mangat, Department of Materials Science and Engineering. Structural Studies of Metal-Semiconductor Interfaces by Photoemission Extended X-Ray Absorption Fine Structure. Wisconsin. \$900.
- Antonio Menendez, Department of Sociology. Relations Between Television and Power in a Developing Capitalist Country of Latin America, Specifically the Case of The Dominican Republic. The Dominican Republic. \$700.
- Ruth A. Myers, Department of Theology. The Process of Change in the Theology and Practice of Christian Initiation in the Episcopal Church. Texas and New York. \$600.
- Randall A. Poole, Department of History. The Current *Glastnost'*-inspired Re-evaluation of Soviet and Russian History. U.S.S.R. \$1,000.
- John F. Quinn, Department of History. Temperance Movement Launched in Ireland by Father Theobald Matthew. Ireland. \$700.

- Kenneth C. Richmond, School of Architecture. Architectural Documentation of Shaker Architecture. Washington, D.C. \$300.
- Robert W. Shaffern, Department of History. Study of Two Fourteenth-Century Treatises on Indulgences Written by the Alsatian Dominican Scholar, John of Dambach. California. \$500.
- Cris Toffolo, Department of Government and International Studies. Effects of Cultural Pluralism on the Maintenance of Democracy in Pakistan. Pakistan. \$700.
- Matthew A. Williams, Department of Chemistry. Utilizing Transition Metals in Organic Synthesis. Sweden. \$1,196.

Jesse H. Jones Faculty Research Travel Grants for 1989-90

The Graduate School announces the following awards from the Jesse H. Jones Faculty Research Travel Fund for the period July 1, 1989, through June 30, 1990.

- Barbara Allen, American Studies. Regional experiences and narrative expression in the American West. \$1,000.
- Steven Hurtt, School of Architecture. The work of the artist Thomas Hart Benton and the landscape of the region depicted in his work—Detroit and Missouri. \$650. (Awarded during 1988-89 fiscal year.)
- Stephen Hurtt, School of Architecture. Study of selected works of Le Corbusier. \$1,600.
- Mark Jordan, Medieval Institute. Preparing for an edition of Constantine the African's *Pantegni*. \$500.
- Wilson D. Miscamble, C.S.C., Department of History. Research on the United States and the Vietnam War—Vietnam, Cambodia, Laos. \$1,000.
- William O'Rourke, Department of English. Preparation of a book manuscript, *Notts*. \$800.
- Terrence W. Rettig, Department of Physics. Research Travel to Siding Spring Observatory to obtain data for completion of the spectroscopic analysis of Comets Halley, Wilson and Nishikawa-Takamizawa-Tago. \$2005.
- Lynn M. Wozniak, Department of Government and International Studies. Completion of data for a book manuscript, *Industrial Restructuring and Political Protest in Socialist Spain.* \$1,800.

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