JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

II. CLASSES AT THE UNIVERSITY OF WISCONSIN--MADISON

Q. Examples of Multidisciplinary Coursework

3. Correspondence and Catalogue Excerpt Regarding Real Estate Program as Member of Center for Land Information Science (Fall, 984)

Index

The School of Business
University of Wisconsin-Madison

Graduate School of Business
1155 Observatory Drive
Madison, WI 53706
608/262-0391

DATE: 26 November 1984

TO: Ben Niemann

FROM: James Graaskamp
Mike Robbins

SUBJECT: "Centers of Excellence in Land Information Science Group"

The Department of Real Estate and Urban Land Economics would be honored to participate in a new, multi-disciplinary Center for Land Information Science. Land Economics and commercial applications of Land Data Systems are critical elements in the justification of methods for modernizing Land Data Systems.

In response to your memo of November 12 we are providing the following attachments:

1. a list of Real Estate Department faculty who will be associated.

2. a paragraph describing our department activities, suitable for insertion at the bottom of page eleven of the "Centers" paper to which we would then add our name as authors. We believe it very important that our department be regarded as an equal partner to the others listed and identified.

3. a list of relevant courses.

A. The edited page eleven is attached.

B. Insert for page fifteen.

Real Estate and Urban Land Economics, Department of, School of Business
Drs. James A. Graaskamp and Michael L. Robbins

C. Faculty inserts for Appendix A

James A. Graaskamp
- Professor and Chairman, Department of Real Estate and Urban Land
- Economics, School of Business, real estate appraisal theory and technique,
- urban investment, institutional real estate portfolio management, and
- urban land economic systems.

Michael L. Robbins
- Assistant Professor, Real Estate and Urban Land Economics, School of
- Business. Acting Director of Business School Computer Center.
- Land development, real estate computer systems, wilderness valuation,
- Municipal land use planning models.

A Page 11 Insert

LAND RECORDS MODERNIZATION: CENTERS OF EXCELLENCE FROM A WISCONSIN PERSPECTIVE

The Business School Department of Real Estate and Urban Land Economics offers a broad array of coursework and research in Urban Land Appraisal, Wilderness Valuation, Land Development Process, Institutional Real Estate Investment Practices, Land Use Control Law, Urban Economics and Land Economics and Real Estate Taxation. It has been a leader in the introduction of computer data processing to real estate and urban decision models for 20 years and has worked closely with the IES and Environmental Monitoring programs since their inception with an array of cross-listed courses which are unique for Business School/Environmental Science relationships.

<u>Recent Faculty Discussions</u>: Due to this long-term interest in land records modernization plus the history of interdepartmental activity, it became apparent that discussions were in order concerning Wisconsin's role. these discussions have resulted in identification of the most active faculty, and the types of professions and disciplines associated with this activity; and development of statements reflective of each unit's teaching and research interest. Identifying relevant coursework and beginning the process of identifying the necessary components of a center of excellence have also resulted.

<u>Existing Programs and Faculty</u>: The University of Wisconsin-Madison offers a broad array of graduate studies in the general realm of mapping and land information sciences. An analysis of this array shows that the disciplines of agricultural economics, cartography, geodesy, geography, landscape architecture, planning photogrammetry, environmental remote sensing, and surveying support several study or research and teaching themes (e.g., environmental studies, geographic information systems, image processing, land tenure, land registration, land records modernization, multipurpose cadastre, natural resource inventory, pattern recognition, policy formulation and analysis, and spatial analysis).

Fifteen faculty that have been identified as being interested in these areas of study come from a range of departments and institutes and centers including the Departments of Agricultural Economics, Civil and Environmental Engineering, Geography and Cartography, Landscape Architecture, Urban and Regional planning, and the Institute for Environmental Studies (especially the IES Environmental Monitoring Program and Environmental Remote Sensing Center) and the Land Tenure Center. (see Appendix A)

Four of these academic units deal most specifically with the technological elements and conceptual bases of the mapping and land information disciplines. Three ~~Two~~ of these departments and one center offer relevant coursework and conduct research that provides economic and social context for land information studies.

The Department of Civil and Environmental Engineering offers coursework and research opportunities in the measurement sciences plus the historical, legal, and practical aspects of property location. The cartography program within the Department of Geography offers in-depth study of map design, production, and use, plus the historical and philosophical aspects of cartography. The Department of Landscape Architecture offers opportunities to address the institutional complexities, applications, and use of modern informational technology. The IES Environmental Monitoring Program addresses the use of remote sensing as a technology to expedite the inventory and monitoring of environmental conditions; data collection from airborne and satellite platforms is emphasized.

The Department of Agricultural Economics offers opportunities in studies of land values, capitalization of conservation practices and zoning and benefit-cost analyses. The Department of Urban and Regional Planning provides background course work in land use and environmental planning and the utility of land information for planning and analysis, policy formulation, and policy implementation. The Land Tenure Center focuses upon land tenure systems and economic development primarily in Latin America, Africa and Asia. Recent work has involved land registration, and cadastres in Latin America. (see Appendix B)

insert

SCHOOL OF BUSINESS ADMINISTRATION
DEPARTMENT OF REAL ESTATE AND URBAN LAND ECONOMICS
ROOM 118 COMMERCE BUILDING
1155 Observatory Drive
(608) 262-6378

Urban Land Economics is a tradition at Wisconsin and the School of Business legitimized real estate and the study of City building enterprises as proper subject material for a School of Business and as a multi-disciplinary field in the late 50's and early 60's. The Department's programs prepare qualified students to become effective Real Estate Project Developers, Financiers, Managers, Corporate Asset Managers, Public Administrators of Housing and Economic Development Programs, and objective valuers of land resources and improvements to the land. Real Estate is a field for the eclectic curiosity and gallant entrepeneur and the academic background of department faculty include advanced degrees in Risk Management, Environmental Monitoring, Urban Economics and History, Law of Land Use, as well as Real Estate. The Department has always emphasised data processing for decision making and has been funded for research over many years of Real Estate Taxation Systems, Wilderness Valuation, and Corporate Asset Real Estate Performance.

Degrees offered: BBA, MBA (Real Estate), MS (Real Estate Appraisal and Investment Analysis), Ph.D. (Urban Land Economics).

Bus 550 The Real Estate Process
Bus 551 Real Estate Finance: Income Property
Bus 552 Residential Real Estate Finance
Bus 553 Urban Land Economics - Housing
Bus 554 Residential Property Development and Management
Bus 555 Commercial Property Development and Management
Bus 556 Valuation of Real Estate
Bus 557 Urban Economics: Sturcture and Dynamics
Bus 559 Construction Enterprise Management
Bus 650 History and Principles of Urban Land Economics Theory
Bus 651 Urban Economics: Public Sector
Bus 652 Microcomputer Applications For Real Estate Analysis
Bus 757 Real Estate Market Analysis
Bus 850 Real Estate Equity Investment
Bus 851 Real Estate Administration: Public and Corporate Institutions
Bus 705 The Real Estate Process
Bus 852 Land Use Controls on Business
Bus 853 Advanced Urban Land Economics
Bus 856 Advanced Appraisal Theory and Practice
Bus 857 Seminar in Feasibility and Appraisal Reports
Bus 858-59 Seminar in Urban Land Economics

Appendix 3

The Institute for Modernization of Land Data Systems/LAND INFORMATION INSTITUTE

November 27, 1984

Please reply to: 7516/83

Dr. Irving Shain,
Chancellor
Room 158, Bascom Hall
University of Wisconsin-Madison
Madison, WI 53706

Dear Chancellor Shain:

On behalf of the Board of Directors of the Institute for Modernization of Land Data Systems (MOLDS), I wish to inform you that at its March board meeting MOLDS designated the University of Wisconsin-Madison as one of three Centers of Excellence in Land Information Science.

This designation recognizes the University of Wisconsin-Madison's long interest and leadership in research and instruction in the area of multipurpose land information systems through its College of Agricultural and Life Sciences, the College of Engineering, the Institute for Environmental Studies, and the College of Letters and Science.

MOLDS recognizes the extent of economic and human investment already in place at Wisconsin and hopes that this commitment will be maintained and enhanced.

We are also aware that there may well be additional needs to strengthen the program through net additions to the faculty and through securing the computer hardware required for the state-of-the-art research, instruction, and outreach needed to advance this important effort.

As background, MOLDS is an international organization of representatives from an array of public and private agencies. Officially organized in 1974, MOLDS' principal objective has been to foster the development of improved Land Information Systems. We represent a wide range of public and private agencies that are deeply involved with land information collection and management (see enclosure).

The need for concentrated, organized education, research and outreach in land information sciences is an issue of national consequence. In 1980 the Committee on Geodesy of the National Research Council concluded the following:

> "There is a critical need for a better land-information system in the United States to improve land conveyance procedures, furnish a basis for equitable taxation, and provide much-needed information for resource management" (National Research Council, 1980, page 1)

In the Committee's deliberations on the implementation of modern land information systems, it became evident that qualified personnel to manage such systems are rare:

> "There is considerable concern that qualified personnel required to perform the functions inherent in a comprehensive land-information system will not be available at all levels of government and in the private sector. The panel believes that means must be found to develop the qualified personnel and to encourage and support university research and development activities and programs--therefore:
> We recommend support by the federal government for the establishment of a center or centers of excellence in land information science, for the purpose of providing a program that develops scholars and professionals. The curriculum should include direct experience with land-data system problems." (National Research Council, 1980, page 4)

Since this initial study, two additional panels have been sponsored by the NRC. Both panels have concurred with the recommendation that a limited number of academic centers of study and training be established.

To help facilitate this NRC recommendation, MOLDS requested information from two U.S. and one Canadian university concerning their interest and capacity to conduct research, education and outreach in land information science. The initial selection of these three universities was based upon our knowledge of their past work in land records modernization issues.

Faculty from your university responded to this request in two forms. Sponsored by the Institute for Environmental Studies, they prepared a paper and presented their ideas at the American Congress of Surveying and Mapping meeting this past March.

They illustrated your institution's present array of available course work related to land information science, and they identified existing graduate degree programs which could be used to begin the education and training of scholars and professionals.

Based upon this documentation of their past research and teaching activities and their enthusiam, we have concluded that the University of Wisconsin-Madison meets our expectations as a Center.

To expand somewhat, in hopes of indicating how impressed MOLDS has been with your institution's activities in land information studies during the past decade, the following is important: The College of Agricultural and Life Science's work on the automation of highway and electrical transmission location procedures provided some early insights into the potential advantages of computing technology, but also identified various institutional problems associated with land records modernization.

The Land Tenure Center's experience in implementing land registry and property systems as part of agrarian reform in Central and South America has been and continues to be outstanding. I might also say that we would support the extension of the Land Tenure Center's knowlege and expertise to study land tenure in the U.S.

The on-campus relationship between the U.S. Department of Agriculture-Economic Research Service and the College of Agricultural and Life Sciences is also noteworthy.

The Economic Research Service sponsored the first national symposium on local land records modernization issues in 1966. Since that time, they have conducted important work in developing monitoring systems of alien farm ownership and land tenure change in rural America in association with your institution.

The College of Letters and Science has also been active through the Geography Department during the past several decades. The University Cartographic Laboratory was established in 1953, and degree programs in Cartography were established at the bachelor's and master's level in 1973 and 1974 respectively.

The innovative cartographic work by faculty and students in the Geography Department is of national consequence.

The College of Engineering has been instrumental in addressing the issues of modernizing cadastral and ownership records to allow for their merger with other existing land records. It should be noted that a strong surveying component is essential in that geo-positioning, property boundary location, and mapping provide the foundation for land information systems.

The kind of work being conducted by the Departments of Civil and Environmental Engineering and Landscape Architecture in the Dane County Land Records Modernization Project is just the type of educational, research, and training experience we believe essential to bring about needed improvement in land information systems in North America.

The Institute for Environmental Studies' Environmental Remote Sensing Center has been at the forefront of applying advances in remote sensing technology to the mapping sciences. The Environmental Remote Sensing Center has also been addressing the use of remote sensing in land management policy formulation.

The Institute for Environmental Studies' spring semester sponsorship of the "Seminar on the Multi-Purpose Cadastre: Modernizing Land Information Systems in North America" has made a major contribution to understanding the complex of issues as seen from the academic, governmental agency, and commercial perspectives. The breadth of subject matter and the quality of the speakers have been most impressive.

Perhaps the most important aspect of your institution's past and present activities is the interdisciplinary nature of the research and training in land information science.

The most compelling proof, however, is the paper submitted by the fifteen faculty authors from seven departments and/or institutes.

The fact that consensus could be obtained across such a diverse set of disciplines is proof of your institution's ability to provide needed leadership in beginning the process of integrating and synthesizing knowledge relevant to the problems this country faces as it begins to modernize its land records systems and institutions.

We are also cognizant of the fact that your institution, through the Institute for Environmental Studies, has the administrative structure, experience, and expertise to provide meaningful frameworks for cooperative interaction across traditional school and college boundaries.

These examples are provided to suggest that we believe the University of Wisconsin-Madison is deserving of being designated as a Center of Excellence in Land Information Science.

To further the aims of MOLDS and your LIS activities, we encourage joint sponsored research, workshops, and conferences, joint sponsored publications, and joint pursuit of mutual goals.

Please advise us, if any specific joint sponsorship of any particular project would be helpful.

Again, our congratulations on your level of excellence. We extend best wishes for your continued growth and excellence in Land Information Sciences.

Yours truly,

K. L. Shirk, Jr.
President
MOLDS/LII

KLSjr:dd:clc
cc: Dr. Robert M. Bock, Dean, Graduate School (333 Bascom Hall)
Dr. John G. Bollinger, Dean, College of Engineering (258 Mechanical Engineering Building)
Dr. Reid A. Bryson, Director, Institute for Environmental Studies (1007 WARF Building)
Dr. Bernard C. Cohen, Vice Chancellor-Academic Affairs (150 Bascom Hall)
Dr. E. David Cronon, Dean, College of Letters and Science (102 South Hall)
Dr. Leo M. Walsh, Dean, College of Agricultural and Life Sciences (140 Agriculture Hall)

REPRESENTATIVES TO MOLDS/LII BOARD OF DIRECTORS

American Bar Association
American Congress on Surveying and Mapping
American Land Forum
American Land Title Association
American Planning Association
American Public Works Association
American Society of Photogrammetry
Bureau of Census
Bureau of Land Management
Canadian Bar Association
Canadian Department of Energy Mines & Resources
Canadian Institute of Surveying
Council of State Governments
Direcion General de Geografia
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Forest Service
Institute of Registration and Notarial Law of Puerto Rico
International Association of Assessing Officers
International City Management Association
Land Information Institute
Land Registration and Information Service
Lincoln Institute of Land Policy
National Association of Counties
National Association of County Recorders and Clerks
National Oceanic and Atmospheric Administration
Office International Du Cadastre Et Du Regime Foncier
Urban and Regional Information Systems Association
U.S. Department of Agriculture
U.S. Department of Housing and Urban Development
U.S. Geological Survey

ABS→JLC

UNIVERSITY OF WISCONSIN-MADISON

"Centers" FYI

CHANCELLOR
Bascom Hall • 500 Lincoln Drive
Madison, Wisconsin 53706
608-262-9946

December 12, 1984

IES
DEC 18 1984
Business Office

Mr. K. L. Shirk, Jr.
President
The Institute for Modernization of Land Data Systems/
Land Information Institute
P.O. Box 1552
Lancaster, PA 17603

Dear Mr. Shirk:

The University of Wisconsin-Madison is pleased to accept the designation as a "Center of Excellence in Land Information Science" conferred on it by the Board of Directors of the Institute of Modernization of Land Data Systems (MOLDS). We are cognizant that this designation has been made by MOLDS only after a careful scrutiny of the commitment, accomplishments, and capabilities of the board, an interdisciplinary group of UW-Madison faculty who have been engaged in research, instruction, and outreach activities associated with land information systems for more than a decade.

This designation serves as a significant recognition of UW-Madison faculty leadership and energy in an area of study that has far-ranging implications at national and international levels for both public and private sectors--the individual citizen; local, state and federal government; and business and industry. Their work has been in the best tradition of the Wisconsin Idea.

The designation will also serve to draw greater attention to the complex array of technological, institutional, and public policy issues involved in modernizing land records. Diverse experience and disciplinary expertise and a coordinated effort to integrate knowledge are required to meet real world needs and provide flexibility for the future. In addition, this designation will help faculty attract resources to move the effort forward.

It has become increasingly evident that ours is an information society. Computer technology permits the storage and manipulation of vast quantities of information and data. The microprocessor revolution makes this technology readily available. At the UW-Madison we have recognized that this reality also requires new institutional arrangements to facilitate the flow of information through systems that are compatible and can be networked for greater efficiency and power. For this reason, we established an all-campus Office of Information Technology designed to promote effective uses of computers and preclude the confusion and inefficiency that would result from unplanned, uncoordinated proliferation of systems and approaches. Though the issues involved in modernizing land records are far more complex than handling information on one university campus, the need for new institutional mechanisms not only to manage information but to provide flexibility and balance for as yet unidentified future needs, is not dissimilar. We applaud the farsightedness of MOLDS in taking such steps as this designation of the UW-Madison as a Center of Excellence in Land Information Science in the effort to respond to an important national need.

I would welcome the opportunity to meet with you, the faculty involved, and their academic deans and directors should you wish to come to Madison for a formal presentation of this designation.

Sincerely,

Irving Shain

Irving Shain
Chancellor

cc: Robert M. Bock
John G. Bollinger
Reid A. Bryson
Bernard C. Cohen
E. David Cronon
Leo M. Walsh

Institute for Environmental Studies

University of Wisconsin-Madison

Center for Geographic Analysis

1042 WARF Building, 610 Walnut Street
Madison, Wisconsin 53705
(608) 262-9937

DATE: 20 December 1984

TO:

Born, Steve, URB R PL/IES
Buttenfield, Barbara, GEOG/CART
Chrisman, Nick, LAND ARC/IES
Clapp, Jim, CEE/IES
Gilbert, Jess, RUR SOC
Graaskamp, James, BUSINESS
Jacobs, Harvey, URB R PL/IES
Jordahl, Harold, URB R PL/IES
Kanarek, Marty, IES/PREV MED
Kaufman, Jerome, URB R PL
Kiefer, Ralph, CEE/IES
Krikelas, James, LIB & INF ST
Kuipers, Ed, CEE
Lillesand, Tom, CEE/IES/FOR
MacDonald, James, LAW/IES
Mezera, Dave, CEE
Miller, Al, SEA GRANT INST
Morse, Anita, LAW
Moyer, Dave, AG ECON
Muehrcke, Philip, GEOG/CART/IES
Raushenbush, Walter, LAW
Robbins, Mike, BUSINESS
Sacks, Arthur, IES
Scarpace, Frank, CEE/IES
Scherz, James, CEE
Stanfield,David, LAND T CTR
Steinhart, John, GEOL/IES
Strasma, John, AG ECON/ECON
Thome, Joseph, LAW/LAND T CTR
Vonderohe, Alan, CEE
Walker, Richard, LIB & INF ST
Williams, Robert, LAW
Wolf, Paul, CEE
Woodward, David, GEOG/CART

FROM: Ben Niemann

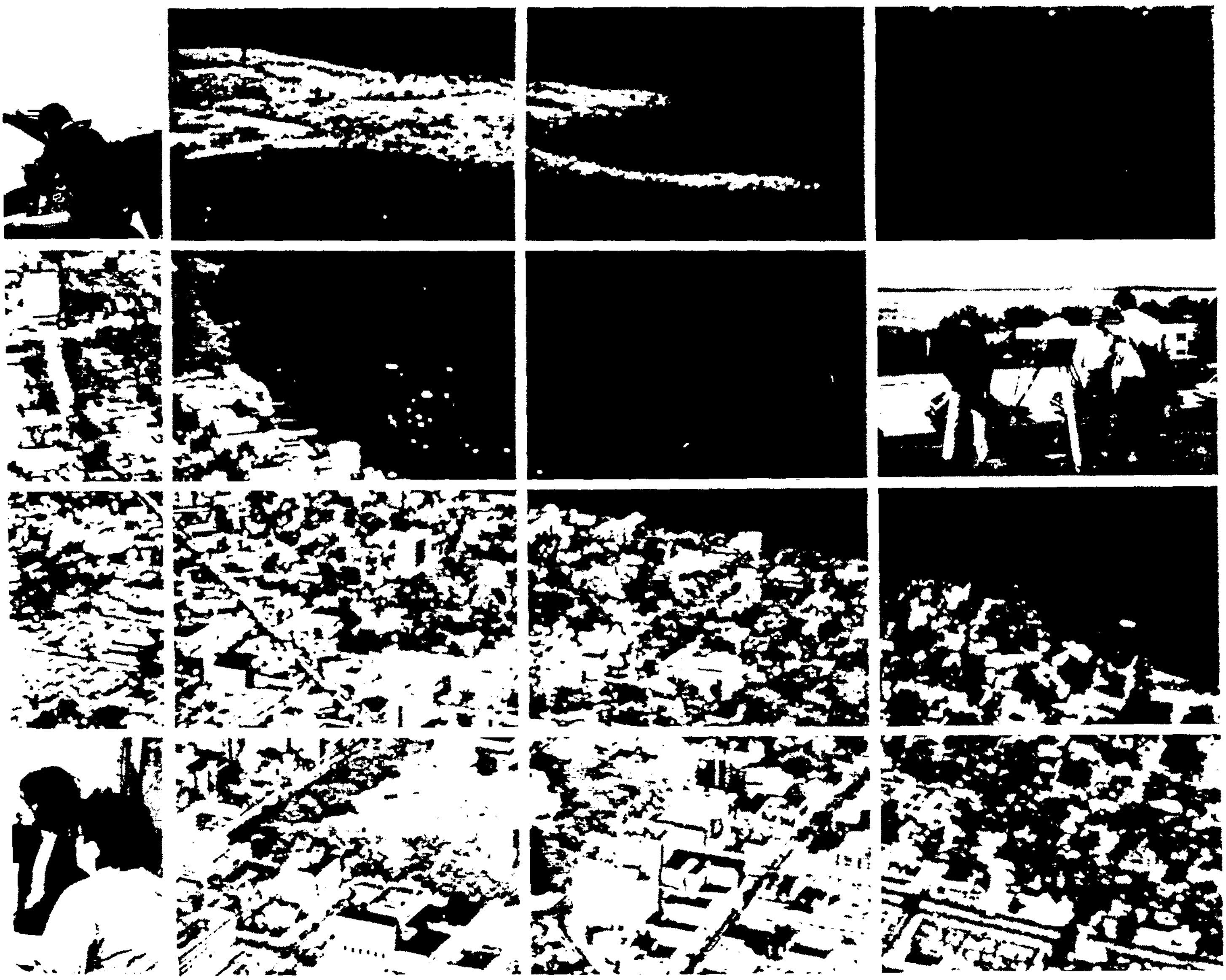
RE: UW-Madison - Center of Excellence in Land Information Sciences

Chancellor Shain responded favorably to the MOLDS designation of UW-Madison as a "Center of Excellence in Land Information Sciences". A copy of the acceptance letter is attached. For those of you who were unable to attend the last "Centers" faculty meeting and did not receive the MOLDS "designation letter", dated 27 November 1984, it is also attached.

Congratulations are in order to all of you. Have a great holiday.

University of
Wisconsin-Madison

Land Information and Mapping Studies



Real Estate and Urban Land Economics

School of Business
Room 118 Commerce Building , 1155 Observatory Drive
Madison, WI 53706
(608) 262-6378

Urban Land Economics is a tradition at Wisconsin. The School of Business legitimized the study of real estate and city building enterprises as proper subject material for a School of Business and as a mutidisciplinary field in the late 1950s and early 1960s. The department's programs prepare qualified students to become effective real estate project developers, financiers, managers, corporate asset mangers, public administrators of housing and economic development programs, and objective valuers of land resources and improvements of the land. Real estate is a field for the eclectically curious and gallant entrepeneur, and the academic background of department faculty include advanced degrees in risk management, environmental monitoring, urban and economic history, and land use law, as well as real estate. The department has always emphasized data processing for decision making and has been funded for research over many years in real estate taxation systems, wilderness valuation, and corporate asset real estate performance.

Degrees available

B.B.A., M.B.A. in Real Estate
M.S. in Real Estate Appraisal and Investment Analysis
Ph.D. in Urban Land Economics

Faculty

James A. Graaskamp
Professor, Business
Chairman, Real Estate and Urban Land Economics
Professional interests:
Real estate appraisal and technique, urban investment, institutional real estate portfolio management, and urban land economic systems.

Dowell Myers
Assistant Professor, Business
Professional interests:
Economic base analysis, demography, and real estate marketing research.

Michael L. Robbins
Assistant Professor, Business
Professional interests:
Land development, real estate computer systems, wilderness valuation, municipal land use planning models.

Land information related courses

BUSINESS 551 *Income Property Finance and Group Investment*
Income property loans; risk management strategies and alternative financing instruments during uncertain times; the rise of group equity funding; and implications for institutional sources of funds.

BUSINESS 552 *Residential Finance and Housing Policy*
Financing homes and apartments, sources of funds; institutional risk management systems; alternative home finance subsidy programs; and the pervasive role of governmental agencies charged with the implementation of legislative shelter priorities.

BUSINESS 553 *Urban Land Economics (Use Location and Succession)*
Analysis of location theories of major urban land use classes; urban land use succession theory.

BUSINESS 554 *Residential Property Development and Management*
Creating housing including strategy; market and merchandising trends; legal and political constraints; site selection; social implications; design and construction procedures; and financial analysis and control for single family subdivisions; multifamily projects and new towns. Case studies emphasize rental property management and federally subsized projects for lower income families.

BUSINESS 555 *Commercial Property Development and Management*
Creating industrial real estate, office space, shopping centers, and recreational facilities including strategy and feasibility analysis, functional design and construction factors, and financial analysis. Emphasis on negotiation of leases from the viewpoint of both tenant and landlord.

BUSINESS 556 *Valuation of Real Estate*
Economic theories of value applied to real estate; valuation as a guide to business decisions; real estate markets which affect value; valuation methods, analysis of evidence of value; appraising residential and income properties.

BUSINESS 557 *Urban Economics: Structure and Dynamics*
Nature and structure of urban economies; location of economic activity; economic analysis in an urban framework; principles of urban economic development, housing, transportation, poverty, unemployment and municipal finance. Forecasting economic activity using census and socioeconomic data.

BUSINESS 559 *Construction Enterprise Management*
An analysis of construction from the viewpoint of organization, accountability, and contractual relations of all participants: owner, architect, contractor, subcontractor, and insurance and bonding companies. Attention to assessing financial capabilities; accounting and cost systems; plus labor relations and legal contractual problems.

Real Estate and Urban Land Economics

BUSINESS 650 *History and Principles of Urban Land Economics Theory*
Historical development of theories explaining the value of urban land and location of urban economic activities. Evolution of institutions and policies which influence and regulate urban land use and value. Interdisciplinary approach emphasizing economics, geography and planning.

BUSINESS 651 *Urban Economics: Public Sector*
Identification and economic analysis of the service policies, problems, and financial systems of American municipal and urban county governments with emphasis on the relation of public sector policies to activity in the local private sector.

BUSINESS 652 *Contemporary Real Estate Analysis*
The application of contemporary real estate theory, and advanced analytical tools to refine techniques in appraisal, financial analysis, and feasibility. Contemporary real estate theory will be structured to establish consistent problem solving procedures. Emphasis will be placed on the identification of critical assumptions and real estate decision models including field applications of microcomputers.

BUSINESS 705 *The Real Estate Process*
Decision making processes for manufacture, marketing, management, and financing of real estate space. Survey of institutional context, economics of urbanization, historical pattern and structure of city growth, and public policy issues regarding urban environment and business management.

BUSINESS 757 *Real Estate Market Analysis*
Analytical techniques used in performing market research and trade area studies needed to assess feasibility of proposed projects in retail, trade, residential, office and other developments. Includes methods of primary and secondary data collection activities, survey research, spatial patterns of urban development, economic base analysis, retail gravity models, and models of consumer behavior and preferences.

BUSINESS 850 *Real Estate Equity Investment*
Fitting investment strategy in the context of physical property, leverage, form of ownership, income tax, and management alternatives. Review of literature and case problem analysis emphasizing cash flow projection, yield, and risk projection for sole proprietorship, partnership, trust, and corporate real estate enterprises.

BUSINESS 851 *Real Estate Administration: Public and Corporate Institutions*
The programming, procurement, management, or disposal of real estate required for public institutions such as hospitals, cities, churches, government agencies; also, large corporate enterprises requiring real estate peripheral to principal activities or possessing surplus fixed assets in real estate. Primarily intended for the public administration major or real estate major interested in public service or broad corporate management.

BUSINESS 852 *Land Use Controls on Business*
Basic principles of the law affecting the use of land and natural resources including legal remedies and defenses available to the private sector. Recent case law. Rapid introduction of adminstrative law through federal govenment controls (Environmental Protection Agency, Interstate Land Sales, Federal Trade Commission, Securities and Exchange Commission, and Proposed Land Use Resource Conservation Act from 1975). State law in New York, California, Vermont, Florida, and Wisconsin compared in terms of economic impact, compensation, and implications for real estate decision making.

BUSINESS 853 *Advanced Urban Land Economics*
Advanced theory of urban situs principles, structure, succession, and related institutional forces.

BUSINESS 856 *Advanced Appraisal Theory and Practice*
Critical review of existing appraisal techniques being proposed nationwide; field appraisal work to apply market simulation approach of most probable selling price theories.

BUSINESS 857 *Seminar in Feasibility and Appraisal Reports*
Feasibility research technique and appraisal theories applied to an actual case situation in the field; students work in teams on selected projects.

BUSINESS 858-859 *Seminar in Urban Land Economics*
Philosophic basis of research thinking and technique; case application to the problems of urban land economics.

Sample Curriculum

The following is a sample set of courses with a focus on land information studies. Final curriculum decisions must be made in consultation with a faculty member.

MS

BUSINESS 550 or 705 *The Real Estate Process*
BUSINESS 551 *Real Estate Finance: Income Property*
BUSINESS 556 *Valuation of Real Estate*
BUSINESS 652 *Contemporary Real Estate Analysis*
BUSINESS 850 *Real Estate Equity Investment*

two of the following courses

BUSINESS 554 *Residential Property Development and Management*
BUSINESS 555 *Commercial Property Development and Management*
BUSINESS 650 *History and Principles of Urban Land Economics Theory*
BUSINESS 741 *Intermediate Statistics*
BUSINESS 852 *Land Use Controls on Business*
LAND ARC 655 *Survey in Computerized Land Information Systems*
LAND ARC 755 *Methods of Computers and Land Use Planning*
CIV ENGR/ENVIR ST 552 *Remote Sensing of the Environment*
CIV ENGR/ENVIR ST 555 *Airphoto Interpretation for Terrain Evaluation*
CIV ENGR/ENVIR ST 567 *Land Use Suitability Evaluation*