

## **UNDERGRADUATE COURSES**

### **CMGT 2110: Construction Codes & Documents**

This course offers a study of national/local building codes and their relationship to specific construction contract documents. Students examine design, pre-bid and bidding phase documents, as well as forms of agreement, bonding and insurance. We will be discussing and reviewing the International Building and Residential construction codes, in addition to their relationship to the construction. Offered SP, SU.

### **CMGT 2160: Residential Construction Systems**

This course is a study of residential construction practice. This course will analyze construction projects from concept and documentation to a survey of major structural systems. The relationship of each system and construction process is delivered through the use of actual construction drawings and documentation. Offered FA, SP.

### **CMGT 2170: Commercial Construction Systems**

Taught as a continuation of CMGT 2160, this course surveys common structural and environmental systems in commercial buildings. Once introduced to all pertinent systems, the student studies the relationships and sequencing criteria critical to the construction industry. A study of the methods and materials of commercial construction practice. This course will analyze construction projects from concept and documentation to a survey of major structural systems. The relationship of each system and construction process is delivered through the use of actual construction drawings and documentation. **PREREQ: CMGT 2160.** Offered WI, SU.

### **CMGT 3100: Construction Estimating**

This course is in three major sections, and will include a focus for each of how those items fit within the framework of the overall project management approach. The three sections are (1) Detail Estimating: Quantity Survey and Detail Pricing; (2) Pre-construction Planning; and (3) other topics (includes bid estimating and ethics). **PREREQ: CMGT 2170.** Offered FA, SP.

### **CMGT 3120: Project Scheduling & Control**

This course offers a study of Construction Project Controls (Costing and Scheduling) including different scheduling techniques and methodologies. You will learn about bids, proposals and contracts, project planning and initiation, construction scheduling and cost engineering (project controls), estimation, resource planning, organization, and project / construction management. You will also learn how to use Primavera P6 in special training sessions where you will learn how to plan, organize, schedule and resource load a project. You will also be instructed in how to plan for and pass the Project Management Professional (PMP) or the Certified Associate in Project Management (CAPM). The course emphasizes Project Controls (Costing and

Scheduling) with an emphasis on Project Management and the Certificate Program. **PREREQ: CMGT 2170.** Offered WI.

## **CMGT 3170: Financial Management for Constructors**

This course focuses on financial management from three perspectives: asset acquisition requirements for construction project; cash-flow requirements for project administration; and construction company financial management. **PREREQ: CMGT 3120.** Offered WI.

## **CMGT 3177: Mechanical and Electrical Systems**

This course is a study of electrical and mechanical systems used in both residential and commercial construction. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, power systems and lighting. The course will also explore emerging technology and environmental issues related to mechanical and electrical systems in buildings. Offered SP.

## **CMGT 3180: Construction Layout/Surveying**

This course is designed to provide the student with the theory, principles and techniques of construction layout and surveying. Topics include field procedures in fundamental land surveying as well as site and foundation layout. Not offered on regular basis.

## **CMGT 3190: Construction Management Seminar**

A course sequence designed to emphasize the practical application of the theories and concepts of residential development. The course provides a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property in a case format. Students will apply accounting, finance, marketing, real estate and construction management techniques in the planning for a residential development. Not offered on regular basis.

## **CMGT 3300: Commercial Practicum I**

This is a three-course sequence emphasizing practical application through development, construction and disposition of a small commercial project. Students work with developers, architects-engineers, attorneys, lenders, survey agents, contractors and brokers to plan, develop, construct and broker the site. **PREREQ: GPA 3.0 or higher.** Offered FA.

## **CMGT 3301: Commercial Practicum II**

Continuation of CMGT 3300. This is a three-course sequence emphasizing practical application through development, construction and disposition of a small commercial project. Students work

with developers, architects-engineers, attorneys, lenders, survey agents, contractors and brokers to plan, develop, construct and broker the site. **PREREQ: CMGT 3300.** Offered WI, SP.

### **CMGT 3302: Commercial Practicum III**

Continuation of CMGT 3301. This is a three-course sequence emphasizing practical application through development, construction and disposition of a small commercial project. Students work with developers, architects-engineers, attorneys, lenders, survey agents, contractors and brokers to plan, develop, construct and broker the site. **PREREQ: CMGT 3301.** Offered SP.

### **CMGT 3401: Residential Practicum I**

A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, and real estate and construction management techniques in the development of a single family residence. **PREREQ: GPA 3.0 or higher.** Offered FA.

### **CMGT 3402: Residential Practicum II**

Continuation of CMGT 3401. A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, and real estate and construction management techniques in the development of a single family residence. **PREREQ: CMGT 3401.** Offered WI.

### **CMGT 3403: Residential Practicum III**

Continuation of CMGT 3402. A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, and real estate and construction management techniques in the development of a single family residence. **PREREQ: CMGT 3402.** Offered SP.

### **CMGT 3438: RECM Legal Issues**

This course introduces general contract and real estate law, tax law, landlord-tenant law, and various areas of liability for real estate practitioners. The course also covers construction contract preparation, bonding and insurance requirements; indemnity agreements; and the

rights and remedies of property owners, contractors and subcontractors, with emphasis on administering a complete contract package for procurement and construction. Not offered on regular basis.

## **CMGT 3700: Topics: Sustainable Development/LEED**

Our built environment has a substantial impact on energy and material resources as well as being a critical determinant of health, comfort, and productivity for occupants. In response, there are numerous local, national, and international entities adopting green, sustainable criteria for new construction and renovations. Sustainable development starts with site planning and evaluation, and proceeds through construction, commissioning, and occupancy phases. The course includes many case studies of historic and contemporary structures exemplifying various sustainability features. Emphasis will be placed on how Leadership in Energy and Environmental Design (LEED) project certification influences the overall construction project. Topics will include LEED certification techniques for sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation and design. The following topics will be covered from a LEED perspective: ventilation, air conditioning, heating, electrical lighting, energy efficiency, and building control systems. The student will study and analyze how management and LEED techniques are applied to current construction projects. Offered WI.

## **CMGT 3800: NAIOP Challenge**

NAIOP Challenge is a very different type of course. Since this is not a traditional course, we will not engage in “typical” classroom activities, nor will we have lectures or exams. We will, however, break into student-led teams and attempt to solve a complex real estate problem. **PREREQ: Permission of instructor.** Offered WI.

## **GRADUATE COURSES**

### **CMGT 4020: Construction Codes & Documents**

This course offers a study of national/local building codes and their relationship to specific construction contract documents. Students examine design, pre-bid and bidding phase documents, as well as forms of agreement, bonding and insurance. We will be discussing and reviewing the International Building and Residential construction codes, in addition to their relationship to the construction. Offered SU.

### **CMGT 4177: Energy Design for Sustainable Development**

A study of electrical and mechanical systems used in both residential and commercial construction. Course content will include system design, component selection and utilization for energy conservation, cost estimating of systems, coordination and management of installation. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, fire protection, life safety, communication,

power systems and lighting. The course will also explore emerging technology and environmental issues related to mechanical and electrical systems in buildings. Offered SP.

## **CMGT 4170: Financial Management for Constructors**

This course focuses on financial management from three perspectives: asset acquisition requirements for construction project; cash-flow requirements for project administration; and construction company financial management. Offered WI.

## **CMGT 4180: Construction Layout & Surveying**

This course is designed to provide the student with the theory, principles and techniques of construction layout and surveying. Topics include field procedures in fundamental land surveying as well as site and foundation layout. Not offered on regular basis.

## **CMGT 4300: Commercial Practicum I**

This three-course sequence emphasizes practical application of commercial development and construction through development, construction and disposition of a small commercial project. Students work with developers, architects-engineers, attorneys, lenders, survey agents, contractors and brokers to plan, develop, construct and broker the site. Offered FA.

## **CMGT 4301: Commercial Practicum II**

Continuation of CMGT 4300. This three-course sequence emphasizes practical application of commercial development and construction through development, construction and disposition of a small commercial project. Students work with developers, architects-engineers, attorneys, lenders, survey agents, contractors and brokers to plan, develop, construct and broker the site. **PREREQ: CMGT 4300.** Offered WI, SP.

## **CMGT 4302: Commercial Practicum III**

Continuation of CMGT 4301. This three-course sequence emphasizes practical application of commercial development and construction through development, construction and disposition of a small commercial project. Students work with developers, architects-engineers, attorneys, lenders, survey agents, contractors and brokers to plan, develop, construct and broker the site. **PREREQ: CMGT 4301.** Offered SP.

## **CMGT 4401: Residential Practicum I**

A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land,

building and selling a residential property. Students will apply accounting, finance, marketing, and real estate and construction management techniques in the development of a single family residence. Offered FA.

## **CMGT 4402: Residential Practicum II**

A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, and real estate and construction management techniques in the development of a single family residence. Continuation of CMGT 4401. **PREREQ: CMGT 4401.** Offered WI.

## **CMGT 4403: Residential Practicum III**

A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, and real estate and construction management techniques in the development of a single family residence. Continuation of CMGT 4402. **PREREQ: CMGT 4402.** Offered SP.

## **CMGT 4405: Residential Construction Systems**

This course is a study of residential construction practice. This course will analyze construction projects from concept and documentation to a survey of major structural systems. The relationship of each system and construction process is delivered through the use of actual construction drawings and documentation. Offered FA, SP.

## **CMGT 4410: Commercial Construction Systems**

Taught as a continuation of CMGT 4405, this course surveys common structural and environmental systems in commercial buildings. Once introduced to all pertinent systems, the student studies the relationships and sequencing criteria critical to the construction industry. A study of the methods and materials of commercial construction practice. This course will analyze construction projects from concept and documentation to a survey of major structural systems. The relationship of each system and construction process is delivered through the use of actual construction drawings and documentation. **PREREQ: CMGT 4405.** Offered WI, SU.

## **CMGT 4420: Construction Estimating**

This course is in three major sections, and will include a focus for each of how those items fit within the framework of the overall project management approach. The three sections are (1)

Detail Estimating: Quantity Survey and Detail Pricing; (2) Pre-construction Planning; and (3) other topics (includes bid estimating and ethics). **PREREQ: CMGT 4410.** Offered FA, SP.

## **CMGT 4438: RECM Legal Issues**

The course's topics are: general contract and real estate law, including property rights; title concepts; deeds; purchase contracts; leases; law of agency, environmental issues and disclosures, basics finance concerns, tax law, landlord-tenant law, construction contracts, indemnity agreements, rights and remedies of property owners, contractors and subcontractors issues, and various areas of liability for real estate practitioners and property owners. Offered SU.

## **CMGT 4480: Construction Project Management**

This course offers a study of Construction Project Management and different scheduling techniques and methodologies. Students will be mental side of construction management including exposure to management needs; bids, proposals and contracts, project planning and initiation, construction scheduling, estimation and cost control, resource planning, organization, project control, project. You will be using a computer, which you need to provide, to help in the planning, organizing and scheduling of a project. **PREREQ: CMGT 4410.** Offered WI.

## **CMGT 4700: Topics: Sustainable Development/LEED**

Our built environment has a substantial impact on energy and material resources as well as being a critical determinant of health, comfort, and productivity for occupants. In response, there are numerous local, national, and international entities adopting green, sustainable criteria for new construction and renovations. Sustainable development starts with site planning and evaluation, and proceeds through construction, commissioning, and occupancy phases. The course includes many case studies of historic and contemporary structures exemplifying various sustainability features. Emphasis will be placed on how Leadership in Energy and Environmental Design (LEED) project certification influences the overall construction project. Topics will include LEED certification techniques for sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation and design. The following topics will be covered from a LEED perspective: ventilation, air conditioning, heating, electrical lighting, energy efficiency, and building control systems. The student will study and analyze how management and LEED techniques are applied to current construction projects. Offered WI.

## **CMGT 4800: NAIOP Challenge**

NAIOP Challenge is a very different type of course. Since this is not a traditional course, we will not engage in "typical" classroom activities, nor will we have lectures or exams. We will, however, break into student-led teams and attempt to solve a complex real estate problem. **PREREQ:** Instructor permission required. Offered WI.

## **UNDERGRADUATE COURSES**

### **REAL 1777: Introduction to Real Estate**

This course is intended for the student to obtain a basic knowledge of the principles and practices involved in a real estate brokerage transaction. The student will obtain recognition of the steps involved in a real estate purchase or sale and the duties of a real estate agent involved in such a transaction. The student will also fulfill the requirements of the licensing law. Offered SU, FA, WI, SP.

### **REAL 3007: Computer Applications for Real Estate Analysis**

This course is designed to give the student an overview of the various forms of technology available to the real estate investor, developer, practitioner or analyst. The central focus of this course is to expose the real estate student to a broad array of analysis and presentation tools which will be expanded upon in other course work. The course is centered around the controlled application of many industry standard PC based programs designed to focus on specific facets of real estate decision making. The course covers applications in Investment Analysis, Lease Analysis, Valuation, Feasibility Analysis and Report Writing and Presentation. Special attention will be given to critical analyses of assumptions underlying the output in all of the applications. It is assumed that the student understands basic real estate principles and financial analysis, however it is not assumed that the student possesses more than rudimentary computer skills. The course is delivered in modules. Each module has specific requirements and builds towards an understanding of the application of key terms and analysis techniques, such as how to present financial data; how to develop a proforma; how to analyze discounted cash flow models; and how to interpret critical financial information. **PREREQ: REAL 3307.** Offered SU, FA, WI, SP.

### **REAL 3010: Real Estate Capital Markets**

This course will expose students to the Commercial Real Estate Capital Markets that have evolved from exclusively private in the 1980s to a mix of private and public including commercial mortgage backed securities (CMBS) and real estate investment trusts (REITs) in the 1990s. Every real estate person should understand all the alternative capital sources available and their requirements. Students will be exposed to the positives and pitfalls of all the capital market products. This course will provide students with the general concepts and definitions of real estate securitization as well as the institutional investment environment. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies using real life examples. The class will run the DU real estate fund that currently has \$70,000 to invest. Students will become REIT analysts and portfolio managers for the quarter. **PREREQ: REAL 3007.** Offered WI, SP.

### **REAL 3110: Advanced Issues in Real Estate**

This course will provide students with exposure to issues and concepts not covered in other courses. A combination of lectures, and guest lectures from industry experts, as well as article readings, and class discussions will be used to help students analyze issues and take positions. Students will understand the following: Capital Markets; real estate economics; current

development issues including environmental; TICs and 1041 exchanges; and current construction management issues. **PREREQ: REAL 3307.** Offered WI.

## **REAL 3140: Global Perspectives in Real Estate**

The purpose and direction of this course is to give each student an opportunity to bring together basic real estate concepts relative to United States real estate issues and to determine the applicability and differences of those concepts and principles in the international real estate market. The focus allows for the consideration of principles and concepts in international real estate outside the United States and the applicability of those factors within and outside of the United States. The topics include detailed real estate, geographic, political, historical, and related information on about 35 countries. These are covered in a multi- point template on each country and in the Global International Real Estate Text. Broad international issues are covered in class and in books written by Friedman. Offered SP.

## **REAL 3307: Real Estate Finance**

This course focuses on income property financial analysis to prepare the student to properly underwrite commercial real estate, whether for financing, valuation, or investment. **PREREQ: Junior standing.** Offered WI, SP.

## **REAL 3317: Real Estate Appraisal**

Income property appraisal analysis to prepare the student to properly value commercial real estate, whether for financing, or investment. **PREREQ: REAL 3307.** Offered FA, WI.

## **REAL 3337: Real Estate Securities, Syndicators, and Entrepreneurship**

This course introduces real estate securities with emphasis on private offerings, securities, registration requirements and exemptions, investor suitability, syndication, property acquisition, marketing the property, and tax and legal structure considerations. Offered SU, FA.

## **REAL 3347: Management of Income Properties**

This course explores the complexities of managing apartments, condominiums, office buildings, industrial property and shopping centers. The course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting, and owner relations. Offered SP.

## **REAL 3367: Commercial Development & Feasibility**

Real estate development is an awesome responsibility. The build environment is an integral part of our civilization, and what is built affects people's lifestyles and dreams. Developers play

a key role in the growth and financial health of cities where people work, eat, shop, sleep and play. They must protect the long-term economic well being of cities. Projects that go bankrupt or are poorly designed create not only a financial loss for the developer, but a loss to the whole community. Commercial Development & Feasibility is exciting because it is dynamic. This course introduces its participants to the complex world of development where sound development principals must be used in concert with community leaders, neighbors and others. Developers must understand and manage urban dynamics, architecture, construction, law, public approvals, public and private finance, marketing and property management. Development talents include: envisioning projects to meet future demands, getting entitlements for raw land, buying and fixing workout properties, renovating, and repositioning. **PREREQ: REAL 3007.** Offered WI, SP.

### **REAL 3369: Real Estate Taxation**

This course focuses on topics such as: tax factors affecting real estate investments; legal forms of ownership, capital gain and loss; deductions, credits, depreciation, tax basis, tax impacts on exchanges; syndications; real estate securities; and other federal tax laws affecting real estate. Application of sustainability concepts is important in this class dealing with real estate tax issues. Offered SU, WI.

### **REAL 3377: Real Estate Investment Seminar**

This is a seminar designed to apply concepts and techniques through the use of case studies. Topics include concepts of structuring ownership of private, public, and joint real estate projects, skills useful in negotiating ownership interest in projects; techniques of risk analysis; (measuring the present value of alternative outcomes) for specific case projects will be covered, cash flow analysis, yield measurement.. **PREREQ: REAL 3007 and REAL 3317; Senior Standing.** Offered SU, WI, SP.

### **REAL 3438: RECM Legal Issues**

This course introduces general contract and real estate law, tax law, landlord-tenant law, and various areas of liability for real estate practitioners. The course also covers construction contract preparation, bonding and insurance requirements; indemnity agreements; and the rights and remedies of property owners, contractors and subcontractors, with emphasis on administering a complete contract package for procurement and construction. Offered WI.

### **REAL 3500: Argus Financial Analysis**

This course concentrates on practical applications of the Argus Real Estate Financial Software. Through interactive examples and case studies, participants will be exposed to the software's capabilities, fundamentals, and unique nuances. **PREREQ: REAL 3007.** Offered FA, SP.

## **REAL 3700: Topics in Real Estate**

This course is an exploration of various topics and issues related to real estate. Not offered on regular basis.

## **REAL 3701: Global Perspectives in Real Estate II**

Corporate property is routinely identified as the second biggest cost within a business organization after staff. Effective management of such a major asset requires a fundamental understanding of both the operation of the property markets and the operational requirements of the business occupier. This course on strategic property management focuses on how property held as a corporate asset can be used to add value to the primary business activity of an organization. Rather than separate the needs of the business from the management of the real estate, the goal of a Corporate Real Estate Class is to enable the student to effectively support the primary corporate functions through strategic management of corporate property, thereby adding value to the overall company. The class provides a framework analyze of any corporate property portfolio for decision making. The class applies concepts through case studies that cover a variety of property users and property types. **PREREQ: REAL 3140.** Not offered on regular basis.

## **REAL 3705: Risk Management Insurance**

This course focuses on insurance issues that arise in business and means for minimizing exposure to risk. This includes liability issues as to persons and property, casualty and property damage questions, employee and employer insurance areas, auto insurance, professional liability insurance, directors' and owners' liability issues, medical insurance, and life insurance. Not offered on regular basis.

## **REAL 3800: NAIOP Challenge**

NAIOP Challenge is a very different type of course. Since this is not a traditional course, we will not engage in "typical" classroom activities, nor will we have lectures or exams. We will, however, break into student-led teams and attempt to solve a complex real estate problem. **PREREQ: Instructor permission required.** Offered WI.

## **REAL 3970: Advanced Valuation & Report Writing**

This course focuses on advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. The course includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation. **PREREQ: REAL 3317 and REAL 3367.** Offered SU.

**GRADUATE COURSES****REAL 4007: Computer Applications for Real Estate Analysis**

This course is designed to give the student an overview of the various forms of technology available to the real estate investor, developer, practitioner or analyst. The central focus of this course is to expose the real estate student to a broad array of analysis and presentation tools which will be expanded upon in other course work. The course is centered around the controlled application of many industry standard PC based programs designed to focus on specific facets of real estate decision making. The course covers applications in Investment Analysis, Lease Analysis, Valuation, Feasibility Analysis and Report Writing and Presentation. Special attention will be given to critical analyses of assumptions underlying the output in all of the applications. It is assumed that the student understands basic real estate principles and financial analysis, however it is not assumed that the student possesses more than rudimentary computer skills. The course is delivered in modules. Each module has specific requirements and builds towards an understanding of the application of key terms and analysis techniques, such as how to present financial data; how to develop a proforma; how to analyze discounted cash flow models; and how to interpret critical financial information. **PREREQ: REAL 4407.** Offered SU, FA, WI, SP.

**REAL 4010: Real Estate Capital Markets**

This course will expose students to the Commercial Real Estate Capital Markets that have evolved from exclusively private in the 1980s to a mix of private and public including commercial mortgage backed securities (CMBS) and real estate investment trusts (REITs) in the 1990s. Every real estate person should understand all the alternative capital sources available and their requirements. Students will be exposed to the positives and pitfalls of all the capital market products. This course will provide students with the general concepts and definitions of real estate securitization as well as the institutional investment environment. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies using real life examples. The class will run the DU real estate fund that currently has \$70,000 to invest. Students will become REIT analysts and portfolio managers for the quarter. **PREREQ: REAL 4007.** Offered WI, SP.

**REAL 4110: Advanced Issues in Real Estate**

The Real Estate and Construction fields are constantly changing and evolving. New issues and topics arise every year that cannot be covered in the curriculum of a normal degree program. This course is designed to bring in industry experts on new and evolving issues to provide students with up-to-date information on the latest developments in many fields. **PREREQ: REAL 4407.** Offered WI.

## **REAL 4140: Global Perspectives in R/E**

The purpose and direction of this course is to give each student an opportunity to bring together basic real estate concepts relative to United States real estate issues and to determine the applicability and differences of those concepts and principles in the international real estate market. The focus allows for the consideration of principles and concepts in international real estate outside the United States and the applicability of those factors within and outside of the United States. The topics include detailed real estate, geographic, political, historical, and related information on about 35 countries. These are covered in a multi- point template on each country and in the Global International Real Estate Text. Broad international issues are covered in class and in books written by Friedman. Offered SP.

## **REAL 4337: Real Estate Securities/Syndications/Entrepreneurship**

The purpose and direction of this course is to identify and determine when real estate might be a security and the implications of the same. Topics include an introduction to real estate securities; emphasis on private offerings; determining whether a contemplated transaction involves a security, and what happens if it does; exemptions from registration (Reg D); registration requirements; investor suitability, how to syndicate, acquisition of property, marketing of the property, tax structure; and formation of syndication, compensation to syndicators, real estate tax considerations. Application of sustainability concepts is important in this class dealing with real estate securities issues. Offered SU, FA.

## **REAL 4347: Management of Income Properties**

This course explores the complexities of managing apartments, condominiums, office buildings, industrial property and shopping centers. The course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting, and owner relations. Offered SP.

## **REAL 4369: Real Estate Taxation**

This course includes topics such as tax factors affecting real estate investments; legal forms of ownership, capital gain and loss; deductions, credits, depreciation, tax basis, tax impacts on exchanges, syndications, real estate securities and other federal tax laws affecting real estate. Application of sustainability concepts is important in this class dealing with real estate tax issues. Offered SU, WI.

## **REAL 4400: Real Estate Concepts**

This course is intended for the student to obtain a basic knowledge of the principles and practices involved in a real estate brokerage transaction. The student will obtain a recognition of the steps involved in a real estate purchase or sale and the duties of a real estate agent

involved in such a transaction. The student will also fulfill the requirements of the licensing law. Offered SU, FA, WI, SP.

## **REAL 4407: Income Property Finance**

This course is focused on income property financial analysis to prepare the student to properly underwrite commercial real estate, whether for financing, valuation, or investment. Offered FA, SP.

## **REAL 4417: Income Property Appraisal**

Income property appraisal analysis to prepare the student to properly value commercial real estate, whether for financing, or investment. **PREREQ: REAL 4407.** Offered FA, WI.

## **REAL 4438: RECM Legal Issues**

This course will provide students with the general process, concepts and definitions used in the commercial real estate development industry. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies with real life examples are used. Students should be able to: understand the steps of the real estate development process; demonstrate knowledge of the professions needed on the development team; interpret the history of the development process and how it has evolved over the centuries; evaluate development projects for practical and financial success; gather relevant market data for project analysis; prepare market analysis reports to be used in project feasibility analysis; produce creative ideas for development; refine general development ideas into useable project scopes; calculate financial projections for development projects; apply contract negotiation techniques to development processes; oversee construction contractors to complete projects; and manage completed projects to produce desired results. Offered SU, WI.

## **REAL 4467: Advanced Real Estate Feasibility Analysis**

This course will provide students with the general process, concepts and definitions used in the commercial real estate development industry. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies with real life examples are used. Students should be able to: understand the steps of the real estate development process; demonstrate knowledge of the professions needed on the development team; interpret the history of the development process and how it has evolved over the centuries; evaluate development projects for practical and financial success; gather relevant market data for project analysis; prepare market analysis reports to be used in project feasibility analysis; produce creative ideas for development; refine general development ideas into useable project scopes; calculate financial projections for development projects; apply contract negotiation techniques to development processes; oversee construction contractors to complete projects; and manage completed projects to produce desired results. **PREREQ: REAL 4007.** Offered FA, WI, SP.

## **REAL 4477: Income Property Investment**

This is a seminar designed to apply concepts and techniques through the use of case studies. Topics include concepts of structuring ownership of private, public, and joint real estate projects, skills useful in negotiating ownership interest in projects; techniques of risk analysis; (measuring the present value of alternative outcomes) for specific case projects will be covered, cash flow analysis, yield measurement. **PREREQ: REAL 4007 & REAL 4417.** Offered SU, WI, SP.

## **REAL 4500: Argus Financial Analysis**

This course concentrates on practical applications of the Argus Real Estate Financial Software. Through interactive examples and case studies, participants will be exposed to the software's capabilities, fundamentals, and unique nuances. **PREREQ: REAL 4007.** Offered FA, SP.

## **REAL 4701: Global Perspectives in Real Estate II**

Corporate property is routinely identified as the second biggest cost within a business organization after staff. Effective management of such a major asset requires a fundamental understanding of both the operation of the property markets and the operational requirements of the business occupier. This course on strategic property management focuses on how property held as a corporate asset can be used to add value to the primary business activity of an organization. Rather than separate the needs of the business from the management of the real estate, the goal of a Corporate Real Estate Class is to enable the student to effectively support the primary corporate functions through strategic management of corporate property, thereby adding value to the overall company. The class provides a framework analyze of any corporate property portfolio for decision making. The class applies concepts through case studies that cover a variety of property users and property types. **PREREQ: REAL 4140.** Offered SP, SU.

## **REAL 4705: Risk Management Insurance**

Managing risk now outweighs work force concerns as a chief worry of senior executives! This course will focus on introductory and advanced topics in risk management, functional and financial operations of insurers, government regulation of insurance, legal principles such as indemnity and subrogation, analysis of insurance contracts, individual health insurance coverage, employee health insurance and retirement plans, personal property and liability insurance, commercial property and liability coverage, umbrella insurance policies, independent contractors and E&O insurance, crime insurance and surety bonds. Offered WI.

## **REAL 4800: NAIOP Challenge**

NAIOP Challenge is a very different type of course. Since this is not a traditional course, we will not engage in "typical" classroom activities, nor will we have lectures or exams. We will, however, break into student-led teams and attempt to solve a complex real estate problem. **PREREQ: Instructor permission required.** Offered WI.

## **REAL 4980: Advanced Valuations & Report Writing**

This course focuses on advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. The course includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation. **PREREQ: REAL 4467 & REAL 4417.** Offered SU.

## **XRCM 4007: Computer Applications for Real Estate Analysis**

This course is designed to give the student an overview of the various forms of technology available to the real estate investor, developer, practitioner or analyst. The central focus of this course is to expose the real estate student to a broad array of analysis and presentation tools which will be expanded upon in other course work. The course is centered around the controlled application of many industry standard PC based programs designed to focus on specific facets of real estate decision making. The course covers applications in Investment Analysis, Lease Analysis, Valuation, Feasibility Analysis and Report Writing and Presentation. Special attention will be given to critical analyses of assumptions underlying the output in all of the applications. It is assumed that the student understands basic real estate principles and financial analysis, however it is not assumed that the student possesses more than rudimentary computer skills. The course is delivered in modules. Each module has specific requirements and builds towards an understanding of the application of key terms and analysis techniques, such as how to present financial data; how to develop a proforma; how to analyze discounted cash flow models; and how to interpret critical financial information. **PREREQ: XRCM 4407.** Offered FA, WI, SP.

## **XRCM 4010: Real Estate Capital Markets**

This course will expose students to the commercial real estate capital markets, including commercial mortgage-based securities (CMBS) and real estate investment trusts (REITs). The advantages and pitfalls of all capital market products will be discussed, offering students a greater understanding of the alternatives that are available. The class format will consist of lectures, guest speakers, readings, class discussions and case studies. **PREREQ: XRCM 4007.** Offered SP.

## **XRCM 4020: Construction Codes & Documents**

National/local building codes and regulations; relationship to specific construction contract documents; design, pre-bid, and bidding phase documents, forms of agreement, bonding and insurance; reading and interpreting codes and specifications. Offered FA, SP

## **XRCM 4110: Advanced Issues in Real Estate**

This course concentrates on 5 advanced real estate and construction management topics; The Design Build Environment, Negotiation Skills in Real Estate and Construction management, Real Estate Capital Markets, The Entitlement Process - Urban Planning/Zoning/PUDs and

Underutilized Tax Advantages in Real Estate - Self Directed IRAs, TICs and Cost Segregation.  
Not offered on regular basis.

## **XRCM 4140: Global Perspectives in Real Estate**

The purpose and direction of this course is to give each student an opportunity to bring together basic real estate concepts relative to United States real estate issues and to determine the applicability and differences of those concepts and principles in the international real estate market. The focus allows for the consideration of principles and concepts in international real estate outside the United States and the applicability of those factors within and outside of the United States. The topics include detailed real estate, geographic, political, historical, and related information on about 35 countries. These are covered in a multi- point template on each country and in the Global International Real Estate Text. Broad international issues are covered in class and in books written by Friedman. Offered SP.

## **XRCM 4170: Financial Management for Constructors**

A study of financial management including budgeting, cash flow management, asset acquisition, and ratio analysis. This course is taught from the perspective that a contractor's job is not only to construct buildings, but to make and manage money in the process. Offered FA.

## **XRCM 4177: Mechanical & Electrical Systems**

A study of electrical and mechanical systems used in both residential and commercial construction. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, power systems and lighting. The course will also explore emerging technology and environmental issues related to mechanical and electrical systems in buildings. This course will incorporate the Green Code in the design and understanding of the MEP systems. Offered WI.

## **XRCM 4180: Construction Layout & Surveying**

This course focuses on the theory, principles and techniques of constructing layout and surveying; field procedures in fundamental surveying; site, foundation and frame layout. Course is taught only on-campus as a "course in residence". Not offered on regular basis.

## **XRCM 4337: Real Estate Securities/Syndications/Entrepreneurship**

The purpose and direction of this course is to identify and determine when real estate might be a security and the implications of the same. The course serves as an introduction to real estate securities; emphasis on private offerings; determining whether a contemplated transaction involves a security, and what happens if it does; exemptions from registration (Reg D); registration requirements; investor suitability, how to syndicate, acquisition of property, marketing of the property, tax structure and formation of syndication, compensation to syndicators, real estate tax considerations. Application of sustainability concepts is important in this class dealing with real estate securities issues. Offered SP.

## **XRCM 4347: Management of Income Properties**

Almost every business executive and private person will make decisions involving real estate at some point in his or her career. This course is designed to give the student a broad overview of real estate management and introduce basic principles and their applications to residential and commercial properties with a practical application introduced through property professionals. Offered SP.

## **XRCM 4369: Real Estate Taxation**

This course includes topics such as tax factors affecting real estate investments; legal forms of ownership, capital gain and loss; deductions, credits, depreciation, tax basis, tax impacts on exchanges, syndications, real estate securities and other federal tax laws affecting real estate. Application of sustainability concepts is important in this class dealing with real estate tax issues. Offered FA, WI.

## **XRCM 4405: Residential Construction Systems**

This course is a study of and residential construction practice. This course will analyze construction projects from concept and documentation to a survey of major structural systems. The relationship of each system and construction process is delivered through the use of actual construction drawings and documentation. Offered FA, SP.

## **XRCM 4407: Income Property Finance**

This course explores conventional and alternative financing techniques, mortgage banking, law and markets, loan underwriting analysis and the impact of monetary and fiscal policies on the real estate and mortgage markets, with emphasis on decision making from the equity investors point of view. Specific topics include an overview and history of real estate finance, the taxation and legal aspects of real estate finance, compounding and discounting, functions of interest and real estate capital markets and securities. Specific areas of focus will be residential property finance, income property finance and construction and development financing. Offered FA, SP.

## **XRCM 4410: Commercial Construction Systems**

Taught as a continuation of XRCM 4405, this course surveys common structural and environmental systems in commercial buildings. Once introduced to all pertinent systems, the student studies the relationships and sequencing criteria critical to the construction industry. A study of the methods and materials of commercial construction practice. This course will analyze construction projects from concept and documentation to a survey of major structural systems. The relationship of each system and construction process is delivered through the use of actual construction drawings and documentation. **PREREQ: XRCM 4405.** Offered SU, WI.

## **XRCM 4417: Income Property Appraisal**

The overall intent of this course is to familiarize the student with real estate valuation techniques used by appraisers, lenders, and investors. Areas of study include highest and best use, the cost, sales comparison, and income approaches of value as applied to investment properties, as well as, capitalization theory and techniques, mortgage equity, and discounted cash flow analysis. Changing real estate market conditions will also be explored. **PREREQ: XRCM 4407.** Offered FA.

## **XRCM 4420: Construction Estimating**

This course is an integrated approach addressing construction accounting, estimating, purchasing, and management reporting systems. **PREREQ: XRCM 4410.** Offered WI.

## **XRCM 4438: Legal Issues in RECM**

Topics for this course include: general contract and real estate law, including property rights; title concepts, deeds, purchase contracts, leases, law of agency, environmental issues and disclosures, basics finance concerns, tax law, landlord-tenant law, construction contracts, indemnity agreements, rights and remedies of property owners, contractors and subcontractors issues, and various areas of liability for real estate practitioners and property owners. Offered SP.

## **XRCM 4467: Development & Feasibility**

This course is designed to cement the comprehensive analytical framework and techniques developed in the graduate real estate curriculum. The class will focus on gathering, analyzing – and understanding market information and data, forecasting demand and supply leading to decision making from an investor's and/or developer's point of view. We will make use of the market analysis model and will make a practical application of a typical development budget for various commercial property types. **PREREQ: XRCM 4007.** Offered FA.

## **XRCM 4477: Income Property Investment**

Specifically, the learning from this course will give you the ability to: (1) define and use terms related to real estate finance and investment including knowledge of the tools used in ratio analysis and discounted cash flow techniques; (2) define and apply the concepts of Internal Rate of Return and Net Present Value; (3) demonstrate writing and grammar skills to enhance knowledge and business professionalism in all your writing in this course; (4) identify the influences on and steps involved in the real estate investment decision process; (5) formulate investment strategies integral to sustainability and growth; (6) identify new concepts and strategies in real estate investment, specifically regarding financial structures and profit splits; (7) synthesize and evaluate data to make appropriate real estate investment decisions and to write a comprehensive case memorandum. **PREREQ: XRCM 4007.** Offered SU.

## **XRCM 4480: Construction Project Management**

This course offers a study of Construction Project Management and different scheduling techniques and methodologies. Students will be mental side of construction management including exposure to management needs; bids, proposals and contracts, project planning and initiation, construction scheduling, estimation and cost control, resource planning, organization, project control, project. You will be using a computer, which you need to provide, to help in the planning, organizing and scheduling of a project. Offered SU.

## **XRCM 4700: Topics in RECM**

Topics vary per quarter. Offered SP.

## **XRCM 4701: Global Perspectives in Real Estate II**

These courses are also offered in a travel format through the Burns Global Delegation. The Burns Global Delegation is an optional, experiential learning opportunity. This travel course is offered in a condensed format. Participants meet with government officials, real estate professionals and academicians during their travels. This exchange provides a unique opportunity to examine international issues related to real estate and establish personal contacts with international industry leaders. Past delegates have traveled to Asia, Russia, Great Britain, Cuba, Europe, Central and South America, the Middle East, and other locations. Global Delegations normally depart 2-3 times per year. **PREREQ: XRCM 4140.** Not offered on regular basis.

## **XRCM 4702: Argus Financial Analysis**

The central focus of this course is to expose the real estate student to a broad array of analysis and presentation tools, with practical applications of the Argus through interactive examples and case studies. The course covers applications in Investment Analysis, Lease Analysis, Valuation, Feasibility Analysis Budgeting, Report Writing and Presentation. It is assumed that the student understands basic real estate principles and financial analysis. **PREREQ: XRCM 4007.** Offered FA, SP.

## **XRCM 4705: Risk Management: Insurance**

Risk Management focuses on learning to identify risks in the commercial setting and management of those risks, principally through insurance, but also through other means. The module initially looks at insurance from the perspective of the consumer, and then concentrates on the operations of insurance companies. Offered WI.

## **XRCM 4777: Real Estate Concepts**

The purpose of this course is to cover principles of real estate, real estate industry and its markets; legal aspects of home ownership from consumer's point of view, including property

rights, title concepts, deeds, purchase contracts, listing contracts, law of agency, environmental issues and disclosures, types of mortgages, basics of home loan finance, appraisal investment and tax benefits. This Course partially satisfies Colorado real estate broker licensing requirements. Not offered on regular basis.

## **XRCM 4980: Advanced Valuation & Report Writing**

This course focuses on advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. The course includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation.

**PREREQ: XRCM 4417 & XRCM 4467.** Offered SU.