Jefferson
Thomas Jefferson University

Master of Science in Real Estate Development Program
Course Descriptions

MRE-601 - Sustainable Real Estate Development Process
This course provides a step-by-step overview of the stages in environmentally and fiscally sustainable real estate and land-use development, considered from the developer's perspective. Topics range from conceptualization and market analysis; site acquisition, zoning, codes, infrastructure and tax incentives; project planning and design; economic feasibility and financing; the development team; the construction process; plus marketing and financial evaluation. Through cases and lectures presented by leading developers, students investigate the market-driven challenges and benefits of sustainable development with emphasis upon the role of the developer in the creation of an architecturally and ecologically superior built environment.

MRE-604 – Case Study: Mixed-Use, Commercial and Health Care Facilities *(or MRE-638)*
This course focuses on the challenges and opportunities intrinsic to three distinct, but interconnected and overlapping, development types, with primary focus upon Mixed-Use (a blend of residential commercial, cultural, institutional and/or industrial uses), complemented by Commercial (office and retail), and Health Care facilities of multiple scales (including senior assisted living, not-for-profit neighborhood clinics, and outreach services). Working in a team-based process, students investigate exemplary, "real world" case studies in a series of intensive charrettes that employ Philadelphia as a living laboratory. The Case Study Studio not only affords students the opportunity to visit and dissect actual development sites, but also to assess the financial and social impact of each development type upon the community, as well as evaluate long-term fiscal and environmental outcomes in projects whose scale and density carry far-reaching social, economic, and "quality of life" consequences.

MRE-615 - Real Estate Finance and Investment
This course introduces concepts, principles and analytical methods used in making sound finance and investment decisions in real estate development. Topics include pro forma analysis, tax analysis, cash flow forecasting, computer modeling, equity valuation, and risk assessment. Using an inductive approach, students gain practical experience applying financial and investment tools in a wide array of property types and development scenarios. Also investigated are capital sources and availability for sustainable planning paradigms, such as Smart Growth, Adaptive Reuse, Brownfield and Infill redevelopment and Transit-Oriented Development (TOD).

MRE-620 - Case Study: Urban Revitalization, Adaptive Reuse & Historic Neighborhoods
Course addresses a critical issue facing the contemporary city, namely how to creatively invigorate urban communities-architecturally, environmentally and fiscally. By assessing the

macro and microeconomics of neighborhoods, students evaluate the social, political and financial impact of sustainable planning strategies, including Smart Growth, Brownfield and Infill redevelopment, Transit Oriented Development (TOD), New Urbanism "live, work, play," Mixed use environments, and the Adaptive Reuse of existing buildings. Student teams investigate "real world" projects, using Philadelphia as a living laboratory. The course affords students the opportunity to visit and dissect actual development sites and measure sustainable interventions as a springboard to urban revitalization.

MRE-625 - Real Estate Law and Ethical Practices
This course examines fundamental legal principles and ethical practices applicable to real estate development. Topics include: contracts, constitutional law, zoning and regulatory aspects of land use, permitting, environmental law and business ethics. Students evaluate the legal issues and ethical implications raised in current case studies and examine the rights, obligations, and liabilities of the major stakeholders in the development process.

MRE-630 - Market Analysis and Valuation
This course identifies data sources and indicators used to track the demographic, sociological, technological and economic trends that impact the supply and demand for particular building types and sites within specific markets and geographic areas. Linked to market trends, valuation analysis assesses the value of an investment and utilizes income capitalization, cash equivalency, highest and best use concepts of discounted cash flow (DCF), cost approach and direct sales comparison to inform sound development decisions. Through examination of wide-ranging case studies, students apply market analysis and valuation techniques to residential, commercial and office markets, as well as consider their implications for sustainable community prototypes.

MRE-635 - Public Private Partnerships
Increasingly federal, state, and local governments are partnering with for-profit and non-profit development companies, transferring potential risks and rewards of development to the private sector in exchange for financial incentives, such as tax abatements, innovative financing, subsidies, and regulatory approvals, among other practices. This course examines the opportunities and challenges of public-private partnerships (PPPs), the techniques employed to encourage job and economic growth, the opportunities and challenges that may occur alongside growth, and the market and fiscal feasibility of cross-sector collaborations. In problem-based learning exercises, students analyze case studies drawn from multiple contexts, with particular emphasis upon sustainable neighborhood redevelopment, brownfields, infill development, adaptive reuse, as well as affordable and mixed income housing. Working in teams, students design and plan a mixed-use development, beginning with site selection in one of Philadelphia's Opportunity Zones and considering market feasibility, subsidized and market funding options, community involvement, political considerations, and financial feasibility.

MRE-638 - Case Study: Sustainable Affordable Housing *(or MRE-604)*
The course is oriented towards the issues faced by local housing practitioners and policy analysts in the challenge of providing sustainable affordable housing. Sustainable affordable

housing is examined from multiple viewpoints – historical, design, finance, policy, planning, and development. Students will understand the social and cultural dynamics of housing, the sustainable development process and the economic impact housing has on the American economy. Additionally, students will learn what influences local, State and Federal policies, laws and regulations have on the housing market, and how to meet the demand for affordable housing, special needs housing and other sub-housing markets.

GEOD-625 - Internet GIS Tech for Design and Development
This course introduces students to online geospatial technology tools applicable in various fields including planning, landscape architecture and real estate development. Software utilized in this course aids professionals in site analysis, land planning, urban design, real estate development, market research and feasibility analyses. Emphasis is placed on the ArcGIS Online platform, an instrument used to evaluate site potential, analyze geographic datasets, host and share impactful and informative applications. Students will utilize tools and data pertaining to landscape planning, the dynamics of neighborhood change and spatial growth modeling.

CMGT-600 - Construction Estimating & Scheduling
Utilizing pertinent case studies, this course focuses upon the planning and scheduling stages of the building process, with particular emphasis upon reading construction documents and basic estimating principles applied to small-scale, residential and commercial projects. Construction site procedures, as well as techniques for estimating unit quantities and costs of materials, labor and equipment, are introduced, and given industry application utilizing building specifications and computer software.

SDN-601 - Principles & Methods of Sustainable Design
Sustainability is a cultural phenomenon that is reshaping the way architects, engineers, designers and planners conceive of the built environment. This lecture/seminar course will explore changes in culture over the years that have led to the formation and adoption of contemporary sustainable design practices, technologies and processes. Current aspects of sustainability will be explored including the impact of the LEED rating system, legislation, environmental law, corporate culture evolution, integrated design process, energy modeling and economic impacts of land development. Students will complete a final paper on future directions in sustainable design at the end of the course.

Designated Elective **3.00 Credits**
Students are given the option to take any non-major course within the College of Architecture and the Built Environment or any course in the Innovation MBA program. Students must meet all course pre-requisites.

MRE-640 – Capstone **4.00 Credits**
Successful completion of the Capstone course provides evidence that students have performed significant and acceptable research and analysis in real estate development and have made an original and permanent contribution to the field. Under the guidance of faculty and professional advisors, each student investigates a focused topic of inquiry relative to current

debates within the field, relevant case studies, core literature and bibliography. It will represent rigorous student-directed research and be as carefully written and edited as any other publication. The final document demonstrates substantive inquiry, supported by topic specific research strategies.

Prerequisites: Students must successfully complete all other required courses for the MS in Real Estate Development prior to taking MRE-640.