

# REAL ESTATE ANALYSIS AND DEVELOPMENT

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| <b>Graduate Program Head</b> | Brent W. Ambrose   |
| <b>Program Code</b>          | REA  |
| <b>Campus(es)</b>            | University Park (M.S.)   |
| <b>Degrees Conferred</b>     | Master of Science (M.S.)<br>Master of Real Estate (M.R.E.)   |
| <b>The Graduate Faculty</b>  | View ( <a href="https://secure.gradsch.psu.edu/gpms/?searchType=facprog=REA">https://secure.gradsch.psu.edu/gpms/?searchType=facprog=REA</a> ) |

The Master of Science in Real Estate Analysis and Development and the Master of Real Estate in Real Estate Analysis and Development will prepare graduates to stand out in a competitive job market by studying at a highly reputed business school with some of the world's leading real estate academic thinkers and industry experts. This program will provide students with the analytical skills grounded in economics and finance required to successfully engage in the real estate industry. Students will gain the skills needed to succeed in today's dynamic work environments, gain a firm understanding of issues and problems facing the real estate industry, develop an understanding and appreciation for leading edge research used to solve problems in real estate markets, and be prepared to become a successful leader. World-class professors who are specialists in real estate finance and economics will teach in the program. A solid foundation in decision analysis, project management, accounting, valuation, market analysis, econometrics, investment analysis and finance will make the target audience more attractive to hiring managers and enable graduates to advance more rapidly into management and leadership positions.

## Admission Requirements

Applicants apply for admission to the program via the J. Jeffrey and Ann Marie Fox Graduate School application for admission (<https://gradschool.psu.edu/admissions/how-to-apply/>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>).

## Educational Background

Applicants must:

- Submit a completed online Graduate School Application for Admission (<http://gradschool.psu.edu/prospective-students/how-to-apply/>), including short admissions essay, resume, and three professional references with complete contact information.
  - Résumé reflecting relevant professional experience including internships and co-op experiences.
- Submit official transcripts from all post-secondary institutions attended (<http://gradschool.psu.edu/prospective-students/how-to-apply/new-applicants/requirements-for-graduate-admission/>).

Master of Real Estate (M.R.E.)

Students who do not have foundational backgrounds in statistics may be required to take MBADM 813 (or equivalent course work) prior to entering the program. The program faculty director will assess the background of each applicant.

## Language of Instruction

The language of instruction at Penn State is English. English proficiency test scores (TOEFL/IELTS) may be required for international applicants. See GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

## Core Application Packet

- Completed official online Graduate School application (<http://gradschool.psu.edu/prospective-students/how-to-apply/>) and payment of nonrefundable application fee.
- Statement of purpose: a 600-word essay articulating career and educational goals that demonstrates the applicant's written communication skills.
- Vita or Résumé.
- Two letters of recommendation that attest to the applicant's readiness for graduate study and document the requisite minimum of one year of work experience. Letters must be submitted through the online application.
- Official transcripts from all post-secondary institutions attended (<http://gradschool.psu.edu/prospective-students/how-to-apply/new-applicants/requirements-for-graduate-admission/>).

## Degree Requirements

### Master of Real Estate (M.R.E.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-700 Professional Degree Policies (<https://gradschool.psu.edu/graduate-education-policies/>).

The minimum total credits required for the REA\_M program is 30 credits at the 400, 500, or 800 level, with a minimum of 18 credits at the 500 or 800 level, and at least 6 credits at the 500 level.

The culminating experience in the REA\_M program consists of the creation and presentation of a real estate development proposal. Students will be presented with a potential development site during Module I in the fall term. Throughout the program, students will acquire the legal and institutional background and skills in data analysis and financial and economic modelling required to propose a successful project that meets all stakeholder requirements. A committee of the graduate faculty in the real estate area in the Smeal College of Business will evaluate the project and presentation quality.

| Code  | Title  | Credits |
|---|--|---------|
| <b>Required Courses</b>   |  |         |
| BA 512  | Quantitative Analysis for Managerial Decision Making | 2       |
| BA 817  | Communication Skills for Management                  | 2       |
| BA 821  | Foundation in Managerial Accounting                  | 2       |
| Elective courses can be chosen from a list of approved courses maintained by the graduate program office. |  | 2-3     |
| RM 424  | Real Estate Law                                      | 3       |
| REST 550  | Contemporary Issues in Real Estate Markets           | 2       |
| REST 570  | Institutional Real Estate Investment                 | 2       |
| REST 575  | Quantitative Analysis for Real Estate                | 3       |
| REST 560  | Real Estate Financial Analysis                       | 2       |

|                               |   |              |
|-------------------------------|---|--------------|
| REST 830                      | Real Estate Institutions and Markets Analysis | 1            |
| REST 840                      | Real Estate Analysis Software and Tools       | 1            |
| REST 880                      | Real Estate Development and Analysis          | 2            |
| REST 885                      | Real Estate and Business Valuation            | 3            |
| REST 890                      | Colloquium                                    | 2            |
| <b>Culminating Experience</b> |   |              |
| REST 894                      | Capstone Experience                           | 1            |
| <b>Total Credits</b>          |   | <b>30-31</b> |

## Master of Science (M.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (<https://gradschool.psu.edu/graduate-education-policies/>)

The number of total credits required for the REA\_MS program is 30 credits at the 400, 500, or 800 level, with at least 18 credits at the 500 level.

The culminating experience for the degree program will be an original scholarly paper that applies rigorous empirical methods to a selected topic related to real estate investments or securities. The culminating scholarly paper will build on and fully integrate content from courses in the REA\_MS program. In particular, the REA\_MS program contains 2-credits of a Real Estate Colloquium (REST 590) that will expose students to current research in real estate topics and thus require that they delve into the appropriate literature. Students in the REA\_MS will be reminded on a regular basis of the research requirement and that they should be using the colloquium sessions to identify possible research topics. A committee of graduate faculty in the real estate area in the Smeal College of Business will evaluate the quality and completeness of the scholarly paper during Module IV in the Spring term.

| Code                          | Title  | Credits   |
|-------------------------------|--|-----------|
| <b>Required Courses</b>       |  |           |
| MBADM 811                     | Financial Accounting                                 | 3         |
| STAT 500                      | Applied Statistics                                   | 3         |
| BA 512                        | Quantitative Analysis for Managerial Decision Making | 2         |
| ECON 501                      | Econometrics   | 3         |
| ECON 502                      | Microeconomic Analysis                               | 3         |
| REST 550                      | Contemporary Issues in Real Estate Markets           | 2         |
| REST 560                      | Real Estate Financial Analysis                       | 2         |
| REST 570                      | Institutional Real Estate Investment                 | 2         |
| REST 575                      | Quantitative Analysis for Real Estate                | 3         |
| REST 590                      | Colloquium (repeatable for a total of 2 credits)     | 2         |
| REST 830                      | Real Estate Institutions and Markets Analysis        | 1         |
| REST 840                      | Real Estate Analysis Software and Tools              | 1         |
| REST 880                      | Real Estate Development and Analysis                 | 2         |
| <b>Culminating Experience</b> |  |           |
| REST 594                      | Research Topics (Scholarly Paper)                    | 1         |
| <b>Total Credits</b>          |  | <b>30</b> |

## Minor

A graduate minor is available in any approved graduate major or dual-title program. The default requirements for a graduate minor are stated in

Graduate Council policy GCAC-218 Minors (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-218-minors/>).

## Student Aid

Graduate assistantships available to students in this program and other forms of student aid are described in the Tuition & Funding (<https://gradschool.psu.edu/funding/>) section of the J. Jeffrey and Ann Marie Fox Graduate School's website. Students on graduate assistantships must adhere to the course load limits (<https://gradschool.psu.edu/graduate-education-policies/gsad/gsad-900/gsad-901-graduate-assistants/>) set by the Fox Graduate School.

## Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Real Estate (REST) Course List (<https://bulletins.psu.edu/university-course-descriptions/graduate/rest/>)

## Learning Outcomes

The Master of Science in Real Estate Analysis and Development and Master of Real Estate Analysis and Development Learning Goals and Objectives include:

### 1. Demonstrate Competency In and Across Real Estate Disciplines

REA\_MS and REA\_M graduates will master a broad core of financial and economic knowledge and be able to integrate and apply this knowledge to business situations within the real estate industry requiring interdisciplinary and global perspectives.

Learning Objectives:

- REA\_MS and REA\_M graduates will be able to demonstrate competency in the underlying concepts, theory, and tools taught in the REA\_MS and REA\_M curriculum.
- REA\_MS and REA\_M graduates will be able to use their knowledge of economics, finance, and real estate institutions and markets to identify, analyze, and recommend solutions to complex real estate problems and projects requiring interdisciplinary and global perspectives.
- REA\_MS graduates will be capable of designing and implementing rigorous research methods to create new solutions to critical problems facing the real estate industry.  
Assessment Method: Course-embedded measure (REST 560, REST 570, REST 575, and REST 590)
- REA\_M graduates will be capable of designing and implementing a complex real estate development and market analysis plan based on applications of tools and techniques derived from rigorous economic and financial research.  
Assessment Method: Course-embedded measure (REST 560, REST 570, and REST 880)

### 2. Analytical and Critical Thinking Skills

REA\_MS and REA\_M graduates will develop analytical and critical thinking skills needed to excel in today's business environment.

Learning Objectives:

- REA\_MS and REA\_M graduates will acquire the analytical and critical thinking skills needed to identify, analyze, and evaluate

alternative solutions to problems and projects facing the real estate industry.

- REA\_MS and REA\_M graduates will develop the skills needed to craft and implement strategic and tactical plans.
- REA\_MS and REA\_M graduates will be able to articulate and defend their analysis and recommended solutions to multiple audiences from business, government, and the community.
- REA\_MS and REA\_M graduates will be able to integrate findings and analysis from cutting edge research to problems and projects in the real estate industry.

Assessment Method: Course-embedded measure (REST 570, REST 575, REST 880, REST 590, REST 890)

### 3. Interpersonal Skills

REA\_MS and REA\_M graduates will possess the interpersonal skills needed to be effective managers and leaders.

Learning Objectives:

- REA\_MS and REA\_M graduates will be skilled at leadership, team building, interpersonal influence, and the management of change.
- REA\_MS and REA\_M graduates will be able to communicate and work effectively with others in work settings involving cultural and demographic diversity.
- REA\_MS and REA\_M graduates will be competent at writing clear, concise, and analytical reports and documents.

Assessment Method: Course-embedded measure (REST 590, REST 880, BA 817)

### 4. Value System

REA\_MS and REA\_M graduates will be able to evaluate the ethical and societal implications of real estate investment and development decisions.

Learning Objectives:

- REA\_MS and REA\_M graduates will be skilled at evaluating the impact of various courses of action on multiple stakeholders, including investors, lenders, customers, and the broader community.

Assessment Method: Course-embedded measure (REST 830, REST 570, REST 880, REST 590, REST 890, BA 817)

Assessment Measures:

- **REA\_MS:** The learning outcomes will be achieved by a combination of lectures by faculty and invited guest lecturers, reading of key literature, individual and team projects, and practical involvement in a research project. Course embedded measures will include an exam administered every Spring in REST 570, writing assignments embedded in REST 830, REST 590, REST 560, REST 570, REST 575, and REST 880, and a speaking assignment embedded every Spring in REST 594. A committee of graduate faculty in the real estate program will assess the students' research papers or essays in REST 594 to determine the students' ability to conduct a rigorous research project.
- **REA\_M:** The learning outcomes will be achieved by a combination of lectures by faculty and invited guest lecturers, reading of key literature, individual and team projects, and practical involvement in a real estate development and market analysis culminating experience. Course embedded measures will include an exam administered every Spring in REST 570, writing assignments embedded in REST 830, REST 560, REST 570, REST 575, and REST 880, and a speaking assignment embedded every Spring in BA 817. Students will complete a culminating experience in REST 894 comprising

the creation and presentation of a real estate development project. A committee of the graduate faculty in the real estate area in the Smeal College of Business will evaluate the project and presentation quality.

## Contact

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| <b>Campus</b>  | University Park   |
| <b>Graduate Program Head</b>   | Brent William Ambrose   |
| <b>Director of Graduate Studies (DGS) or Professor-in-Charge (PIC)</b> | Brent William Ambrose   |
| <b>Program Contact</b>   | Andrea Lyn Murphy-Faust<br>220 Business Building<br>475 Shortlidge Road<br>University Park PA 16802<br>alm205@psu.edu<br>(814) 863-0474 |
| <b>Program Website</b>   | View ( <a href="https://msread.smeal.psu.edu/">https://msread.smeal.psu.edu/</a> )  |