WISCONSIN
UNIVERSITY OF WISCONSIN–MADISON

University of Wisconsin – Madison, School of Business
REAL EST 870: ADVANCED REAL ESTATE FINANCE THEORY
Spring 2024

Course Credits: Three (3)
Course URL: https://canvas.wisc.edu/courses/396321
Course Designation: N/A
Meeting Time: Mon 14:30 ~ 16:45
Location: 4349 Grainger Hall
Instructional Mode: In-person

Primary Instructor: Professor Dayin Zhang
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Email: dayin.zhang@wisc.edu
Office Hours: By appointment
TA: Heejin Yoon (heejin.yoon@wisc.edu)

Course Description
A Ph.D. seminar intended to provide an overview of theoretical and empirical research on real estate, with a focus on real estate finance. The topics covered in the course are intended to expose students to some of the major contributions in real estate research as well as a consideration of the current trends and methodological advances in recent papers.
The course will start from the global financial crisis, and study the causes, mechanisms, and consequences of large-scale mortgage defaults during the crisis. Then we move to public policies targeting mortgage borrowers and learn how government interventions panned out. Lastly, we study the different features of the current mortgage market, including financial intermediation, GSEs, brokerage, racial disparities, and market powers.

Course Requisites
Declared in Business, Ph.D. graduate program.

Learning Outcomes
- Demonstrate the ability to read and criticize theoretical and empirical papers in real estate finance.
- Enhance skills needed to undertake and present theoretical and empirical research
- Demonstrate knowledge of some of the main econometric tools and theoretical modeling strategies used in recent papers

How Course Credit Hours Are Met

The credit standard for this course is met by an expectation of a total of 135 hours of student engagement with the course learning activities (at least 45 hours per credit), which include regularly scheduled instructor: student meeting times [one meeting per week of 135 minutes], reading, writing, and other student work as described in the syllabus..

How to Succeed in This Course

Attending the in-person lectures is critical to completing the course. Students are encouraged to ask questions, bring up relevant discussion topics, and participate in interactive lectures. Outside of class, students are expected to *complete the relevant readings, review available lecture notes, and attempt the homework problems in advance of the lecture*.

Regular and Substantive Student-Instructor Interaction

REAL EST 870 is an in-person course taught by the Instructor and students receive direct instruction once weekly. Students are encouraged to ask questions, bring up relevant discussion topics, and participate in interactive lectures. This in-class interaction is part of the class participation portion of the student's grade. The Instructor will provide information and respond to questions about the content of the course or a specific competency. In addition, on certain assignments, comments and suggestions about how to improve their work will be provided to students.

Course Grading

1. In-class Participation	30%
2. Homework Assignments	30%
3. Final Literature Review Paper	40%
	100%

1. In-class Participation and Professionalism

Class participation is an important component of your overall grade. Class participation is graded based on attendance, discussions and presentations of assigned readings.

Guidelines for Evaluating Participation

Outstanding Contributor: You exhibit exceptional preparation, offer ideas that are substantive, and provide major insights. If you were not a member of the class, the quality of discussion would be diminished markedly. (You will receive full credit = 30 points.)

Good Contributor: You exhibit thorough preparation, offer ideas that are usually substantive, and provide good insights. If you were not a member of the class, the quality of discussion would be diminished. (You will receive 27 points.)

Adequate Contributor: You exhibit satisfactory preparation, offer ideas that are sometimes substantive, and provide generally useful insights. If you were not a member of the class, the quality of discussion would be diminished somewhat. (You will receive 24 points.)

Non-Participant or Unsatisfactory Contributor: You say little or nothing in class and your contributions in class reflect inadequate preparation. You offer few if any insights. If you were not a member of the class, the quality of discussion would not be changed. (You will receive 10 points.)

2. Homework Assignments

You will have several homework assignments throughout the semester. Written solutions to homework assignments should be thoroughly explained and logically coherent. Clear writing reveals the clarity of understanding. Leaving a paper trail is essential so that your solution logic can be followed. Your assignments will be graded based on completeness (breadth) and understanding (depth).

3. Final Literature Review Paper

All students are required to complete a literature survey related to one of the topics covered in the class. Deadlines for topic selection, outlines, first drafts, and completed papers will be covered in class.

Grade Distribution

Final grades will be based on a curve to meet the WSB Grading Expectations Policy.

Grade	**Points**
A (Excellent)	93 and above
AB (Intermediate grade)	86-92
B (Good)	81-85
BC (Intermediate grade)	76-80
C (Fair)	61-75
D (Poor)	50-60
F (Failure, see section below)	Below 50

Required Textbook, Software, and Other Course Materials

Text: There is no required textbook but numerous papers will be reviewed throughout the semester.

Software: Python, Stata.

Readings: I will assign readings and presentations each week from the list below.

I will assign papers from the following list each week. **This list is subject to change.**

Global Financial Crisis I: Supply-side Empirics

Mian, A., & Sufi, A. (2009). The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis. *Quarterly Journal of Economics*, *124*(4), 1449–1496.

Keys, B. J., Mukherjee, T., Seru, A., & Vig, V. (2017). Did Securitization Lead to Lax Screening? Evidence from subprime Loans. *Quarterly Journal of Economics*, 56.

*Harrison, David, Thomas Noordewier and Abdullah Yavas (2004), Do Riskier Borrowers Borrow More? *Real Estate Economics*, 32 (3), 385-411.

*Arentsen, E., Mauer, D. C., Rosenlund, B., Zhang, H. H., & Zhao, F. (2015). Subprime Mortgage Defaults and Credit Default Swaps: Subprime Mortgage Defaults and Credit Default Swaps. *The Journal of Finance*, *70*(2), 689–731.

Global Financial Crisis II: Demand-side Empirics

Adelino, M., Schoar, A., & Severino, F. (2016). Loan Originations and Defaults in the Mortgage Crisis: The Role of the Middle Class. *Review of Financial Studies*, *29*(7), 1635–1670.

Foote, C. L., Loewenstein, L., & Willen, P. S. (2021). Cross-Sectional Patterns of Mortgage Debt during the Housing Boom: Evidence and Implications. *The Review of Economic Studies*, *88*(1), 229–259.

Palmer, C. J. (2023). An IV Hazard Model of Loan Default with an Application to Subprime Mortgage Cohorts. *NBER Working Paper 32000*.

*Mian, A., & Sufi, A. (2017). Fraudulent Income Overstatement on Mortgage Applications During the Credit Expansion of 2002 to 2005. *The Review of Financial Studies*, *30*(6), 1832–1864.

*Mian, A., & Sufi, A. (2015). Household Debt And Defaults From 2000 To 2010: Facts From Credit Bureau Data. *NBER Working Paper 21203*.

*Adelino, M., Schoar, A., & Severino, F. (2015). Loan Originations And Defaults In The Mortgage Crisis: Further Evidence. *NBER Working Paper 21320*.

*Case, K., Shiller, R., & Thompson, A. (2012). What Have They Been Thinking? Homebuyer Behavior in Hot and Cold Markets. *Brookings Papers on Economic Activity*.

*Foote, C., Gerardi, K., & Willen, P. (2012). Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes Of The Foreclosure Crisis. *NBER Working Paper 18082*.

*Albanesi, S., DeGiorgi, G., & Nosal, J. (2022). Credit growth and the financial crisis: A new narrative. *Journal of Monetary Economics*, *132*, 118–139.

Global Financial Crisis III: Propagation of Shocks

Defusco, A. A. (2018). Homeowner Borrowing and Housing Collateral: New Evidence from Expiring Price Controls. *The Journal of Finance*, *73*(2), 523–573.

Mian, A., Rao, K., & Sufi, A. (2013). Household Balance Sheets, Consumption, and the Economic Slump, *The Quarterly Journal of Economics*, *128(4)*, 1687–1726.

*Cloyne, J., Huber, K., Ilzetzki, E., & Kleven, H. (2019). The Effect of House Prices on Household Borrowing: A New Approach. *American Economic Review*, *109*(6), 2104–2136.

*Guren, A. M., McKay, A., Nakamura, E., & Steinsson, J. (2021). Housing Wealth Effects: The Long View. *The Review of Economic Studies*, *88*(2), 669–707.

*Jensen, T. L., Leth-Petersen, S., & Nanda, R. (2022). Financing constraints, home equity and selection into entrepreneurship. *Journal of Financial Economics*, *145*(2), 318–337.

Global Financial Crisis IV: Structural Approach

Kaplan, G., Mitman, K., & Violante, G. L. (2020). The Housing Boom and Bust: Model Meets Evidence. *Journal of Political Economy*, *128*(4), 3285–3345.

*Justiniano, A., Primiceri, G. E., & Tambalotti, A. (2019). Credit Supply and the Housing Boom. *Journal of Political Economy*, *127*(3), 1317–1350.

*Landvoigt, T., Piazzesi, M., & Schneider, M. (2015). The Housing Market (s) of San Diego. *American Economic Review*, *105*(4), 1371–1407.

*Corbae, D., & Quintin, E. (2015). Leverage and the Foreclosure Crisis. *Journal of Political Economy*, *123*(1), 1–65.

*Greenwald, D. L., & Guren, A. (2021). *Do Credit Conditions Move House Prices? NBER Working Paper 29391.*

*Justiniano, A., Primiceri, G. E., & Tambalotti, A. (2022). The Mortgage Rate Conundrum. *Journal of Political Economy*, *130*(1), 121–156.

Mortgage Market Microfoundation I: Why Do Borrowers Default?

Gerardi, K., Herkenhoff, K. F., Ohanian, L. E., & Willen, P. S. (2018). Can't Pay or Won't Pay? Unemployment, Negative Equity, and Strategic Default. *The Review of Financial Studies*, *31*(3), 1098–1131.

Ganong, P., & Noel, P. (2023). Why do Borrowers Default on Mortgages? *The Quarterly Journal of Economics*, *138*(2), 1001–1065.

*Deng, Y., Quigley, J. M., & van Order, R. (2000). Mortgage Terminations, Heterogeneity and the Exercise of Mortgage Options. *Economatrica*, *68*(2), 275–307.

*Gupta, A. (2019). Foreclosure Contagion and the Neighborhood Spillover Effects of Mortgage Defaults. *The Journal of Finance*, *74*(5), 2249–2301.

*Campbell, J. Y., & Cocco, J. F. (2015). A Model of Mortgage Default. *The Journal of Finance*, *70*(4), 1495–1554.

*Guren, A. M., & McQuade, T. J. (2020). How Do Foreclosures Exacerbate Housing Downturns? *The Review of Economic Studies*, *87*(3), 1331–1364.

*Gyourko, J., & Tracy, J. (2014). Reconciling theory and empirics on the role of unemployment in mortgage default. *Journal of Urban Economics*, *80*, 87–96.

Mortgage Market Microfoundation II: Bankruptcy and Garnishment

Dobbie, W., & Song, J. (2015). Debt Relief and Debtor Outcomes: Measuring the Effects of Consumer Bankruptcy Protection. *American Economic Review*, *105*(3), 1272–1311.

*Li, W., White, M. J., & Zhu, N. (2011). Did Bankruptcy Reform Cause Mortgage Defaults to Rise? *American Economic Journal: Economic Policy*, *3*(4), 123–147.

*DeFusco, A. A., Enriquez, B., & Yellen, M. (2023). Wage Garnishment In The United States: New Facts From Administrative Payroll Records. *Working Paper.*

*White, M. J. (2009). Bankruptcy: Past Puzzles, Recent Reforms, and the Mortgage Crisis, *American Law and Economics Review 11(1),* 1-23.

Government Intervention I: Mortgage Modification and Debt Relief

Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S., Piskorski, T., & Seru, A. (2017). Policy Intervention in Debt Renegotiation: Evidence from the Home Affordable Modification Program. *Journal of Political Economy, 125(3)*.

Ganong, P., & Noel, P. (2020). Liquidity versus Wealth in Household Debt Obligations: Evidence from Housing Policy in the Great Recession. *American Economic Review*, *110*(10), 3100–3138.

*Mayer, C., Morrison, E., Piskorski, T., & Gupta, A. (2014). Mortgage Modification and Strategic Behavior: Evidence from a Legal Settlement with Countrywide. *American Economic Review*, *104*(9), 2830–2857.

*Piskorski, T., & Seru, A. (2021). Debt relief and slow recovery: A decade after Lehman. *Journal of Financial Economics*, *141*(3), 1036–1059.

*Government and Private Household Debt Relief during COVID-19. (2024). *Brookings Papers on Economic Activity*.

*Herkenhoff, K., & Ohanian, L. (2011). Labor Market Dysfunction During the Great Recession. *NBER Working Paper 17313*.

Government Intervention II: Transmission of Monetary Policies

Di Maggio, M., Kermani, A., Keys, B. J., Piskorski, T., Ramcharan, R., Seru, A., & Yao, V. (2017). Interest Rate Pass-Through: Mortgage Rates, Household Consumption, and Voluntary Deleveraging. *American Economic Review*, *107*(11), 3550–3588.

Di Maggio, M., Kermani, A., & Palmer, C. J. (2020). How Quantitative Easing Works: Evidence on the Refinancing Channel. *The Review of Economic Studies*, *87*(3), 1498–1528.

*Berger, D., Milbradt, K., Tourre, F., & Vavra, J. (2021). Mortgage Prepayment and Path-Dependent Effects of Monetary Policy. *American Economic Review*, *111*(9), 2829–2878.

*Coibion, O., Georgarakos, D., Gorodnichenko, Y., & Weber, M. (2023). Forward Guidance and Household Expectations. *Journal of the European Economic Association*, *21*(5), 2131–2171.

*Stroebel, J., & Taylor, J. B. (2012). Estimated Impact of the Federal Reserve's Mortgage-Backed Securities Purchase Program. *International Journal of Central Banking*, *8*(2).

*Willen, P. (2014). Evaluating Policies to Prevent another Crisis: An Economist's View, *NBER Working Paper 20100*.

Government Intervention III: Mortgage Refinance

Agarwal, S., Amromin, G., Chomsisengphet, S., Landvoigt, T., Piskorski, T., Seru, A., & Yao, V. (2023). Mortgage Refinancing, Consumer Spending, and Competition: Evidence from the Home Affordable Refinance Program. *The Review of Economic Studies*, *90*(2), 499–537.

Keys, B. J., Pope, D. G., & Pope, J. C. (2016). Failure to Refinance. *Journal of Financial Economics*, *122*(3), 482–499.

*Agarwal, S., Driscoll, J. C., & Laibson, D. I. (2012). Optimal Mortgage Refinancing: A Closed-Form Solution. *Journal of Money, Credit and Banking*, 45(4), 591-622

*Chen, H., Michaux, M., & Roussanov, N. (2020). Houses as ATMs: Mortgage Refinancing and Macroeconomic Uncertainty. *The Journal of Finance*, *75*(1), 323–375.

*Khandani, A. E., Lo, A. W., & Merton, R. C. (2013). Systemic risk and the refinancing ratchet effect. *Journal of Financial Economics*, *108*(1), 29–45.

Mortgage Market I: Market Power and Mortgage Rate Dispersions

Fuster, A., Bhutta, N., & Hizmo, A. (2020). Paying Too Much? Price Dispersion in the U.S. Mortgage Market. *Finance and Economics Discussion Series*, *2020*(062).

Agarwal, S., Grigsby, J., Hortaçsu, A., Matvos, G., Seru, A., & Yao, V. (Forthcoming). Searching for Approval. *Econometrica*.

*Allen, J., Clark, R., & Houde, J.-F. (2019). Search Frictions and Market Power in Negotiated-Price Markets. *Journal of Political Economy, 127(4)*.

*Allen, J., Clark, R., & Houde, J.-F. (2014). The Effect of Mergers in Search Markets: Evidence from the Canadian Mortgage Industry. *American Economic Review*, *104*(10), 3365–3396.

*Allen, J., Clark, R., Houde, J.-F., Li, S., & Trubnikova, A. V. (2023). The Role of Intermediaries in Selection Markets: Evidence from Mortgage Lending. *NBER Working Paper 31989*

*Gan, J., & Riddiough, T. J. (2008). Monopoly and Information Advantage in the Residential Mortgage Market. *Review of Financial Studies*, *21*(6), 2677–2703.

*Scharfstein, D., & Sunderam, A. (2013). Concentration in Mortgage Lending, Refinancing Activity and Mortgage Rates. *NBER Working Paper 19156.*

Mortgage Market II: Brokerage

Woodward, S. E., & Hall, R. E. (2010). Consumer Confusion in the Mortgage Market: Evidence of Less than a Perfectly Transparent and Competitive Market. *American Economic Review: Papers & Proceedings*, *100*(2), 511–515.

Woodward, S. E., & Hall, R. E. (2012). Diagnosing Consumer Confusion and Sub-Optimal Shopping Effort: Theory and Mortgage-Market Evidence. *American Economic Review*, *102*(7), 3249–3276.

*Robles-Garcia, C. (2020). Competition and Incentives in Mortgage Markets: The Role of Brokers. *Working Paper*.

*Agarwal, S., Ang, S. H., Deng, Y., & Wang, Y. (2021). Mortgage Brokers and the Effectiveness of Regulatory Oversights. *Management Science*, *67*(8), 5278–5300.

*Berndt, A., Hollifield, B., & Sandås, P. (2010). The Role of Mortgage Brokers in the Subprime Crisis. *NBER Working Paper 16175*.

*Kleiner, M., & Todd, R. (2007). Mortgage Broker Regulations That Matter: Analyzing Earnings, Employment, and Outcomes for Consumers. *NBER Working Paper 13684*.

Mortgage Market III: Racial Disparities

Munnell, A. H., Tootell, G. M. B., Browne, L. E., & Eneaney, J. M. (1996). Mortgage Lending in Boston: Interpreting HMDA Data. *American Economic Review*, *86*(1), 25–53.

Bhutta, N., & Hizmo, A. (2021). Do Minorities Pay More for Mortgages? *The Review of Financial Studies*, *34*(2), 763–789.

Gerardi, K., Willen, P. S., & Zhang, D. H. (2023). Mortgage prepayment, race, and monetary policy. *Journal of Financial Economics*, *147*(3), 498–524.

Frame, W. S., Huang, R., Mayer, E. J., & Sunderam, A. (2023). The Impact of Minority Representation at Mortgage Lenders. *Working Paper.*

*Ambrose, B. W., Conklin, J. N., & Lopez, L. A. (2021). Does Borrower and Broker Race Affect the Cost of Mortgage Credit? *The Review of Financial Studies*, *34*(2), 790–826.

*Bartlett, R., Morse, A., Stanton, R., & Wallace, N. (2022). Consumer-lending discrimination in the FinTech Era. *Journal of Financial Economics*, *143*(1), 30–56.

*Bayer, P., Ferreira, F., & Ross, S. L. (2018). What Drives Racial and Ethnic Differences in High-Cost Mortgages? The Role of High-Risk Lenders. *The Review of Financial Studies*, *31*(1), 175–205.

*Ladd, H. F. (1998). Evidence on Discrimination in Mortgage Lending. *Journal of Economic Perspectives*, *12*(2), 41–62.

*Zhang, D. H., & Willen, P. (2020). Do Lenders Still Discriminate? A Robust Approach for Assessing Differences in Menus. *Working Papers.*

Mortgage Market IV: GSEs

Hurst, E., Keys, B. J., Seru, A., & Vavra, J. (2016). Regional Redistribution through the US Mortgage Market. *American Economic Review*, *106*(10), 2982–3028.

Elenev, V., Landvoigt, T., & Van Nieuwerburgh, S. (2016). Phasing out the GSEs. *Journal of Monetary Economics*, *81*, 111–132.

*Zhang, D. (2020). Government-Sponsored Wholesale Funding and the Industrial Organization of Bank Lending. *Working Paper*

*Caplin, A., Cororaton, A., & Tracy, J. (2015). Is the FHA Creating Sustainable Homeownership? *Real Estate Economics*, *43*(4), 957–992.

*Chernenko, S., Hanson, S. G., & Sunderam, A. (2014). The Rise and Fall of Demand for Securitizations. *Working Paper*

*Jaffee, D., & Quigley, J. (2011). The Future of the Government Sponsored Enterprises: The Role for Government in the U.S. Mortgage Market. *NBER Working Paper 17685*.

***Mortgage Market V: Financial Intermediation**

*Gurun, U. G., Matvos, G., & Seru, A. (2016). Advertising Expensive Mortgages. *The Journal of Finance*, *71*(5), 2371–2416.

*Piskorski, T., Seru, A., & Witkin, J. (2015). Asset Quality Misrepresentation by Financial Intermediaries: Evidence from the RMBS Market. *The Journal of Finance*, *70*(6), 2635–2678.

*Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S., & Evanoff, D. D. (2014). Predatory lending and the subprime crisis. *Journal of Financial Economics*, *113*(1), 29–52.

*Buchak, G., Matvos, G., Piskorski, T., & Seru, A. (2018). Fintech, regulatory arbitrage, and the rise of shadow banks. *Journal of Financial Economics*, *130*(3), 453–483.
*Fuster, A., Plosser, M., Schnabl, P., & Vickery, J. (2019). The Role of Technology in Mortgage Lending. *The Review of Financial Studies*, *32*(5), 1854–1899.

Course Policies

In-Person Instruction

This is a face-to-face class. Class time will be reserved for going through the lecture material, covering additional related topics, demonstrating solutions to example problems, taking quizzes and tests. Students are strongly encouraged to review the posted lecture material, read the assigned readings, and attempt the homework prior to the class presentation. Attendance and participation during the lectures will count towards the overall class participation portion of the grade. If a student needs to miss a lecture at the scheduled time, students must email the instructor well in advance.

Late Assignments

Late assignments will not be accepted unless cleared well in advance with the instructor. Late assignments that are not cleared well in advance will receive a reduction in score, and possibly a zero. It is very important that you do all your own work in this class. Exams will be closed book and closed note, unless otherwise announced.

Academic Integrity Statement

By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary action include, but is not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Additional Information on Academic Integrity

It is vitally important to stress the University's academic integrity policy. I cannot emphasize enough how important working independently on this course is to your future in real estate. If I believe, for any reason, there is potential collaboration happening, I will meet individually with all individuals involved. Based on the outcome of that meeting, your grade may be impacted. With this said, there are times throughout the semester when working together will be encouraged and required (e.g. the case study).

More generally, you will be expected to show common courtesy to your instructor and fellow students while in the classroom by giving them your undivided attention. While computer use is acceptable for taking notes in class, if the use of a computer becomes a distraction for any reason, the privilege to use a computer may be revoked.

Privacy of Student Records & the Use of Audio Recorded Lectures Statement

Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

Accommodations for Students with Disabilities

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (UW-855) require the university to provide reasonable accommodations to students with disabilities to access and participate in its academic programs and educational services. Faculty and students share responsibility in the accommodation process. Students are expected to inform faculty [me] of their need for instructional accommodations during the beginning of the semester, or as soon as possible after being approved for accommodations. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to provide reasonable instructional and course-related accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. (See: McBurney Disability Resource Center)

Diversity and Inclusion

Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.