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Department of Mathematics  
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EDUCATION

**Ph. D. Mathematics, May 2009**, University of Montana  
*Advisor:* Dr. Thomas Tonev  
*Dissertation:* Norm-Preserving Criteria for Uniform Algebra Isomorphisms  
**M. A. Mathematics, May 2006**, University of Montana  
*Advisor:* Dr. Adam Nyman  
*Professional Project:* Classifying Quadratic Forms  
**B.S. Mathematics, May 2003**, Wheaton College, magna cum laude  
Illinois Initial Teaching Certificate, Mathematics, Grades 6–12

TEACHING  
EXPERIENCE

**Houghton College/University**  
Professor, 2023–present  
Associate Professor, 2016–2023  
Mathematics Department Chair, 2015–2022  
Assistant Professor, 2009–2016  
*Courses Taught:* Calculus I with Precalculus A, Calculus and Problem Solving, Calculus I and II, Linear Algebra I and II, Introduction to Proofs, Real Analysis I and II, Complex Analysis, Abstract Algebra II, Probability and Statistics I, Graph Theory, Mathematics for the Liberal Arts, Mathematics Research Seminar, Reason and Abstraction: The Infinite, Reason and Abstraction: Mathematics for Human Flourishing, Reason and Abstraction: Origami and Math, Reason and Abstraction: Math of Games and Puzzles, Introduction to Category Theory, Game Theory, Mathematics of Origami, Senior Seminar, various independent studies.  
*Honors Projects Supervised*  
Numerical Range over Finite Fields (Timothy Lund, 2023)  
Exploring Numerical Range over Finite Fields (Amy Huddell, 2020)  
Variations on Multiplicative Preservers of the  $C$ -Numerical Range and Radius (Samantha Fairchild, 2015)  
**University of Montana**  
Teaching Assistant/Predoctoral Associate, Fall 2004–Spring 2009  
*Courses Taught:* Linear Algebra, Calculus I, Precalculus, Probability and Linear Math, Contemporary Mathematics  
*Courses Assisted:* Applied Calculus, Probability and Linear Math  
**Whitefield Academy, Smyrna, GA**  
Middle School Teacher, August 2003–May 2004  
*Courses Taught:* 7th grade math, 8th grade honors algebra

PUBLICATIONS

Camenga, K. A., Paranamana, P., and Yates, R. B. J. *Bingo! A solution to syllabus information overload*, MAA FOCUS, accepted.

Camenga, K. A., Rault, P. X., Spitkovsky, I. M., and Yates, R. B. J. *The Gau–Wu Number for  $4 \times 4$  and Select Arrowhead Matrices*, Linear Algebra and Its Applications, Volume 644, Elsevier, 1 July 2022, pp. 192–218.

Camenga, K. A., Collins, B., Hoefler, G., Quezada, J., Rault, P. X., Willson, J., and Yates, R. B. J. *On the geometry of numerical ranges over finite fields*, Linear Algebra and Its Applications, Volume 628, Elsevier, 1 November 2021, pp. 182–201.

## REBEKAH B. JOHNSON YATES

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### PUBLICATIONS CONTINUED

Camenga, K. A., Deaett, L., Rault, P. X., Sendova, T., Spitkovsky, I. M., and Yates, R. B. J. *Singularities of Base Polynomials and Gau–Wu Numbers*, Linear Algebra and Its Applications, Volume 581, Elsevier, 15 November 2019, pp. 112–127.

Camenga, K. A., and Yates, R. B. J. *The Real Numbers: Not All Decimals Are Fractions*, Frontiers for Young Minds, 8:4.

Camenga, K., and Yates, R. *Connecting the dots: rediscovering continuity*, Mathematics Teacher, Volume 108, Number 3, National Council of Teachers of Mathematics, October 2014, pp. 213–217.

Deaett, L., Lafuente-Rodriguez, R., Marin, J., Martin, E., Patton, L., Rasmussen, K., and Yates, R. *Trace conditions for symmetry of the numerical range*, Electronic Journal of Linear Algebra, Volume 26, International Linear Algebra Society, September 2013, pp. 591–603.

Hatori, O., Lambert, S., Luttmann, A., Miura, T., Tonev, T., and Yates, R. *Spectral Preservers in Commutative Banach Algebras*, in Function Spaces in Modern Analysis, Contemporary Mathematics, vol. 547, American Mathematical Society, Providence, RI, 2011, pp. 103–123.

Tonev, T. and Yates, R. *Norm–Linear and Norm–Additive Operators Between Uniform Algebras*, Journal of Mathematical Analysis and Applications, Volume 357, Issue 1, 1 September 2009, pp. 45–53.

Yates, R. *Classifying Quadratic Forms*, Professional Project for M.A. degree, published in the University of Montana Department of Mathematical Sciences, 2006.

Hruska, S., Johnson, R., and Yates, R. *An Alternating Series Expansion for  $(\ln 2)^2$* , Pi Mu Epsilon Journal, 11:10(2004), 545–548.

### TALKS

*Research Early and Research Often: A Low Floor Early Introduction to Mathematics Research* with Kristin Camenga, Joint Mathematics Meetings, Washington, D. C., January 6, 2026.

*Derivative or Integral? Connecting Mathematics with Faith, Learning, and Life in a Senior Seminar Course*

The Kuyers Institute/International Network for Christian Higher Education/De Vries Institute 2024 Conference on Integrated Education in a Reductionist Age, Calvin University, October 11, 2024

*Every valley shall be raised up, and every mountain made low, and the rough places...a crane?* Association of Christians in the Mathematical Sciences (ACMS) Conference, Dordt University, May 30, 2024

*The Dot and the Line: A Romance in Finite Field Numerical Ranges* Joint Mathematics Meetings, San Francisco, CA, January 3, 2024

*Integrating Math and Faith: Highlights*

Wheaton College Mathematics and Computer Science Department Chapel, November 8, 2023

*The Dot and the Line: A Romance in Finite Field Numerical Ranges*

Fall Meeting of the Math Division of the Associated Colleges of the Chicago Area November 7, 2023 (invited plenary speaker)

*Two Person Games Not Worth Playing (and Some That Might Be)*

Fall Meeting of the Math Division of the Associated Colleges of the Chicago Area, November 7, 2023 (invited plenary speaker)

*Math at the Ballot Box*

Houghton University Math Day interactive session, October 26, 2023

*Infinite Snowflakes*

Houghton University Math Day interactive session, October 27, 2022

*All Natural  $\pi$*

Calvin College Mathematics Colloquium, April 29, 2021.

*Oh the Books You Can Read!*

Joint Mathematics Meetings, Denver, CO, January 16, 2020.

TALKS  
CONTINUED

- Making Stuff Up: A Model for Undergraduate Research in Mathematics*,  
ACMS Conference, Indiana Wesleyan University, May 30, 2019.
- All Natural  $\pi$*   
MAA Seaway Section Banquet Address, St. John Fisher College, April 5, 2019.
- A Century at Home on the (Numerical) Range*  
Houghton College Science and Math Colloquium, February 26, 2019.
- Taxis, Trains, and Teleportation: Circling the Value of  $\pi$* ,  
Math and Science Day interactive session, Houghton College, February 6, 2019.
- Taxis, Trains, and Teleportation: Circling the Value of  $\pi$*   
Juniata College Mathematics Colloquium, November 1, 2018.
- A Century at Home on the (Numerical) Range: Historical Highlights and Current Research*  
University of Nebraska at Omaha Mathematics Colloquium, October 26, 2018.
- Incarnate in the Ordinary*  
Houghton College Baccalaureate, May 11, 2018.
- Knowing What You Know*  
Joint Mathematics Meetings, San Diego, January 12, 2018.
- On Beyond Calculus: A Day for Community Outreach*  
ACMS Conference, Charleston Southern University, June 2, 2017.
- There Are 10 Kinds of People: Those Who Come to This Session and Those Who Don't*  
Math and Science Day interactive session, Houghton College, February 7, 2017.
- The Mathematics of Voting*  
Math Discovery Day interactive session, Houghton College, April 9, 2016.
- As the Crow Flies and the Taxi Drives*  
Math and Science Day interactive session, Houghton College, February 2, 2016.
- On Beyond Calculus*  
Joint Mathematics Meetings, Seattle, January 9, 2016.
- The Road Best Traveled: The Mathematics of Getting There and Back Again*  
Math and Science Day interactive session, Houghton College, February 2015 & 2018.
- The Subspace Game*  
Joint Mathematics Meetings, San Antonio, January 10, 2015.
- To Infinity and Beyond*  
Math and Science Day interactive session, Houghton College, February 2011 & 2014.
- Helping Students Overcome Discouragement in Real Analysis*  
Joint Mathematics Meetings, Baltimore, January 13, 2014.
- Integrating Faith through Writing in Calculus I*  
ACMS Conference, Bethel University, May 31, 2013.
- What If I Get Bored? How One Chapel Made Me a Mathematician.*  
Houghton Education and Life Planning Day Alternative Chapel, March 13, 2013.
- Writing in Calculus I: Is It Derivative or Integral?*  
Joint Mathematics Meetings, San Diego, January 12, 2013.
- Obama and Romney: What's Math Got to Do with It?*  
with Jill Jordan, Houghton College Homecoming, Fall 2012.
- Numerical Range: Counting Necklaces and Searching for Symmetry*  
SUNY Geneseo Mathematics Colloquium, October 13, 2011.
- An Infinity of Infinities*  
Houghton College Faculty Lecture Series, September 21, 2011.
- A Second Course in Linear Algebra: Teaching Students to Read and Speak Mathematics*  
ACMS Conference, Westmont College, June 2, 2011.
- Helping Pre-Service Teachers Recognize Continuity in the Secondary Curriculum*  
with Kristin Camenga, Joint Mathematics Meetings, New Orleans, January 9, 2011.

## REBEKAH B. JOHNSON YATES

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### PROFESSIONAL ACTIVITIES

- Mathematical Association of America Chauvenet Prize Committee member*  
July 2025–February 2028.
- Linear and Multilinear Algebra reviewer*  
August 2025–present.
- Problems, Resources, and Issues in Mathematics Undergraduate Studies (PRIMUS) editorial board*  
August 2017–August 2020.
- Proceedings of the Association of Christians in the Mathematical Sciences reviewer*  
August 2017–present.
- Association of Christians in the Mathematical Sciences board member*  
2013–June 2021, secretary May 2015–May 2017.
- MAA Seaway Section Department Liaison*  
Spring 2010–present.
- Undergraduate Research Poster Session judge*  
Joint Math Meetings, January 2011, 2012, 2013, 2014.
- Abstract Reviewer for the Young Mathematicians Conference*  
The Ohio State University, June 2012.
- Graduate Student Talks mentor*  
MathFest, August 2011.

### HOUGHTON SERVICE

- Admission Committee*  
Fall 2024–Spring 2025.
- re:SET Task Force on student evaluations and evaluating teaching and service*  
January 2024–September 2026.
- Peer Reviewer for mid- and post-tenure reviews  
Fall 2022, Spring 2024, Fall 2024, Spring 2025, Fall 2025
- Rank and Tenure Committee*  
Fall 2021–Spring 2024.
- Faculty Concerns Committee*  
Fall 2017–Spring 2019.
- Houghton College Science and Math Colloquium Organizer*  
Fall 2014–Spring 2018.
- Investigative Team for Sexual Harassment Complaints*  
Fall 2014–Spring 2019.
- Self-Study Steering Committee for reaccreditation and co-chair of a working group*  
2013–2015.
- Faculty Search Committees, Houghton College*  
2011–2012 (math), 2013–2014 (math), 2014–2015 (math and applied math; chair of applied math), 2016–2017 (philosophy).
- Co-PI for application for NSF Robert Noyce Teacher Scholarship*  
February 2014. Application was not funded.
- Virginia Tech Regional Math Contest local organizer*  
Houghton College, October 2010, 2011, 2012.
- Faculty Development Committee*  
Houghton College, September 2010–April 2012.
- Willing to Be Wiser mentoring program participant*  
Houghton College, September 2011–April 2012.
- Math Club advisor*  
Houghton College, September 2010–May 2011.

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- HONORS AND AWARDS
- Initiative for Christ-Centered Teaching and Scholarship Fellow*  
Houghton University, AY 2024–2025
  - Excellence in Teaching Award*  
Houghton University, March 2024
  - 2010–2011 Project NExT Fellow*  
MAA and Houghton College.
  - Graduate Student Distinguished Teaching Award*  
University of Montana Department of Mathematical Sciences, 2006–2007.
- GRANTS
- American Institute of Mathematics Research Experience for Undergraduate Faculty Continuation Grant*  
Institute for Computational and Experimental Research in Mathematics, Brown University, Providence, RI, June 2–6, 2025.
  - American Institute of Mathematics Research Experience for Undergraduate Faculty Continuation Grant*  
Houghton, NY, May 31–June 4, 2021.
  - American Institute of Mathematics Research Experience for Undergraduate Faculty Continuation Grant*  
San Jose, CA, August 7–11, 2017.
- CONFERENCES ATTENDED
- Advocating for Students of Color: There’s More You Can Do*  
virtual, Fall 2020.
  - Math Chairs for Racial Justice*  
virtual reading group, Summer 2020.
  - Mastery Based Grading Conference*  
virtual, June 5–6, 2020.
  - Inquiry-Based Learning Workshop*  
Nazareth College, Rochester, NY, July 18–21, 2017.
  - Joint Mathematics Meetings*  
San Francisco 2024, Denver 2020, Seattle 2016, San Antonio 2015, Baltimore 2014 & 2019, San Diego 2018, 2013, & 2008, Boston 2012, New Orleans 2011, Washington, D.C. 2009 & 2026.
  - Association of Christians in the Mathematical Sciences Biennial Meeting*  
Dordt University 2024, Indiana Wesleyan University 2019, Charleston Southern University 2017, Redeemer University College 2015, Bethel University 2013, Westmont College 2011, Wheaton College 2009.
  - MAA Seaway Section Meeting*  
St. John Fisher College Spring 2019, SUNY Oswego Spring 2017, Rochester Institute of Technology Fall 2016, Elmira College Fall 2012, Nazareth College Spring 2011, SUNY Fredonia Fall 2009.
  - Conference on Undergraduate Research in Mathematics*  
Pennsylvania State University, November 2011 (with six students), November 2009 (with seven students).
  - Project NExT Workshops and MAA MathFest*  
Pittsburgh, PA, August 2010 and Lexington, KY, August 2011.
  - American Institute of Mathematics Research Experience for Undergraduate Faculty*  
Palo Alto, CA, July 18–22, 2011.
  - St. Lawrence Valley Mathematics Symposium III*  
Clarkson University, November 5–6, 2010 (with six students).
  - 6th Conference on Function Spaces*  
Southern Illinois University at Edwardsville, May 2010.