# Jim Ashe

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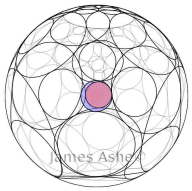


## Teaching Philosophy Summary

After more than 20 years of teaching in different capacities, I recognize the need to learn from students and adapt to their needs. Assessing individuals and setting attainable but challenging goals has been key to my success and what brings me joy as a teacher. A student who believes they can succeed -can succeed; it is my job to find a path they accept. More than anything, I want students to recognize my genuine passion for teaching and their future.

## Education

PhD in Mathematics, University of Tennessee. *2012*
*Generalized Branching in Circle Packing*

MS in Mathematics, University of Tennessee. *2004*
*Fractured Branched Circle Packings on the Plane*

BS in History with a minor in Art, East Tennessee State University. *1999*

## Experience

**Course Faculty, IT College WGU** *2016-current*
I have taught every mathematics and computer science course at our university. WGU is a 100% online, accredited non-profit university. Our unique competency-based model makes education accessible independent of location, time, or background.

- Teach 320+ online, asynchronous students in up to 5 different courses.
- Facilitate and organize faculty meetings and math colloquiums.
- Develop and manage resources for all math courses, teacher exam prep, AI, algorithms, machine learning, Java, Python, and others.

**Math Content Writer, Shmoop University Inc.** *2015-2016*
Wrote content, problems, and detailed solutions for online calculus and pre-calculus courses in the flavor of the Shmoop brand.

**Assistant Professor of Mathematics, Johnson C. Smith University** *2012-2014*
Taught and developed curriculum for Calculus, abstract algebra, analysis, linear algebra, algebra, pre-calculus, and math education courses, Wrote an introductory abstract algebra textbook, served on senior thesis committees, advised student research, and observed student teaching.

**Adjunct Professor of Mathematics, Pellissippi State Community** *2004-2005*
Taught developmental and freshmen algebra to traditional and non-traditional students.

**Adjunct Professor of Mathematics, University of Tennessee** *2001-2012*
All freshmen and sophomore level course, e.g, probability & stats, pre-Calculus, Calculus I, finite math, algebra, etc.

## Skills

- Highly skilled with online, asynchronous education, and managing virtual and real classrooms with diverse populations including traditional, non-traditional, minority, ESL, developmental level, and math-focused students.
- Experienced with online learning management systems (LMS), e.g., MyMathlab, WebAssign, Blackboard, Jenzabar, and Moodle; and online meeting tools, e.g., Adbode, WebEx, Zoom, and Join.me.
- Technically skilled with video creation software, LaTeX, Python, Java, Maple, Microsoft 365, Microsoft Office Word, Excel, Outlook, PowerPoint, Teams, etc. Subject matter expert in mathematics, statistics, and computer science.

## Research & Professional Development

My research is in circle packing (math subject classification 52C26) focusing on discrete analytic functions via circle packings involving singularities. As a topic, circle packing is ripe with many open and interesting questions inviting traditional and experimental methods -perfect for undergraduate student research.

*Circle Packings with Generalized Branching* — *2016*
James Ashe, Edward Crane, & Kenneth Stephenson.
*The Journal of Analysis* vol. 24, 251-276.

*How to Learn Math for Teachers* — *2016*
Stanford Center for Professional Development.

*Circle Packing: A Visual Introduction* — *2014*
UNCA junior colloquium.

*Generalized Branching in circle packing: A discrete Ahlfors function* — *2014*
AMS Southeastern Spring Sectional Meeting.

*Modeling the Thomson Problem with Circle Packing* — *2012-2013*
HBCU-UP mini-grant student research project.

AMS Mathematical Research Communities — *2012*
*Discrete and Computational Geometry*, Conference participant.

## References

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