

Curriculum Vitae of Robert Allan Mead

Last updated January 2, 2011

Date of Birth: December 8, 1947

Home Address: 830 Dartmouth College Highway

Haverhill, NH 03765 USA

Telephone: (603) 989-5523

e-mail address: claire.mead@alumni.duke.edu

Certification: Secondary Mathematics Education, Vermont, through 2013

Education

Graduate:

- May, 2000: M. Ed. in Mathematics Education, Plymouth State College, NH
- 1998-9: Graduate Assistant for Mathematics Department, Plymouth State College

Undergraduate:

- 1973-1975: Plymouth State College: B.S., Mathematics Education, summa cum laude, (aide for Mathematics Dept., 1974)
- 1965-67: Drexel University (Philadelphia, PA): 18 mathematics credits, (internship with Missile and Space Data Processing Division, General Electric)

Teaching Experience

- 2004-2010: volunteer mentor for The Math Forum @ Drexel
- 2008-2009: volunteer group study leader "The Night Sky and You," for ILEAD (adult education at Dartmouth)
- 2006-2007: paid mentor for The Math Forum @ Drexel
- Winter/Spring 2007: St. Paul's School, Concord, NH, long-term substitute calculus and precalculus teacher
- Fall 2005: long-term substitute, math in grades 7-12 Thetford Academy, VT
- 1997-2005: Plymouth State (now) University – adjunct lecturer for Mathematics Department
- Summer, 2002: Instructor for Calculus I and II in North Country Teacher Apprenticeship Project (Eisenhower funded)
- Jan- Dec. 2000: Mathematics coordinator and e-structor, Smarthinking.com (online tutoring service)
- 1983-1997: Oxbow High School, Bradford, VT, mathematics teacher. Courses taught: Precalculus, Calculus I, II, Algebra I, Seventh Grade Math, Eighth Grade Math, Practical Geometry, Consumer Math, General Math.
- 1975-80: Orford Middle School, Orford, NH, mathematics teacher. Courses taught: Math for grades 5-8, Reading

Technology

- Using online Lesson Builder (SoftChalk) interactive software for curriculum development
- Working knowledge of spreadsheet, database, graphing, Dreamweaver (web design), programming in BASIC, dynamic geometry software, and Mathematica
- Developed web-based Calculus, including notes, assignments, live chat, Sketchpad demonstrations, and WebCT, 2002
- Worked as an online tutor (real time, whiteboard) for college-level math, 2000
- Teaching college classes with TI-83 graphing calculators
- Developed software (BASIC, Mathematica and Sketchpads) to use in teaching:
 - Calculus – slope and limit approximation, numerical integration, series.
 - Precalculus – fractal iteration and image scanning, Monte Carlo simulations, statistical calculations, matrix operations and transformations.
 - Probability and Statistics
 - Patterns of Growth
 - Algebra / geometry connections
 - Numerical analysis and number theory
(many programs developed with student collaborators)

Activities

- April, 2010: Co-presenter, orientation to The Math Forum @ Drexel, Westford, MA schools
- Fall 2008 through 2009: Curriculum developer for Duke University's Talent Identification Program (TIP): authored 10-week unit, *Cryptology and Mathematics: Secret Codes and Number Secrets* for gifted middle grade students
- November 2008: presenter at Association of Teachers of Mathematics in New England (AMTE), workshop on using games and puzzles to learn and practice math in grades 5-12. The main vehicle was the website:
<http://www.unclebobpuzzles.com/Permasite/aNHTM07puzz/Lower/lowermenu.html>)
- Spring 2007: Presenter at New Hampshire Teachers of Mathematics (NHTM), same as above
- Summer 2006: Tutor for gifted high school geometry student (earned credit independently)
- Spring 2006: co-led workshop for K-6 teachers at St. Catherine School, Manchester, NH
- April, 2004 to present: "Uncle Bob's Puzzle Monthly":
<http://www.unclebobpuzzles.com/>

- October 2001: Presenter at NHTM Focus Forum, Manchester, NH, "Where's the Geometry?" (similarity in secondary curriculum)
- Summer 2001: Co-instructor for Algebra/Geometry Connections professional development course at Plymouth State University.
- Spring 2000: Graduate project in Math History, "Four Areal Views" self-published on web
- Spring 1999: Served on Plymouth faculty panel to review draft of *NCTM Standards 2000*
- 1999 and 1995: Designed and delivered "A Starburst of Mathematics" 15-hour teacher inservice
- 1998-present: Board of Directors, North Country YMCA
- 1997: Facilitated Math Camp at Oxbow High School in collaboration with Dartmouth College mathematics graduate program under supervision of Professor Ken Bogart, Dartmouth College Mathematics Department
- 1997: Delivered workshop on math manipulatives to Prof. Bogart's students
- 1995: Vermont state finalist for Presidential Excellence Award (PAESMT)
- 1994: Served on planning team led by Vivian Ladd for Hood Museum of Art (Dartmouth College) outreach program for teacher inservice
- 1994-1996: Served on Orange East Supervisory Union Mathematics/Science/Technology Committee to produce inservice activities funded through Eisenhower grants
- 1993-7: Developed and taught a Precalculus course which emphasized writing about non-routine problems and connections to other mathematics and real applications
- 1989-present: Volunteer for Haverhill Recreation Association, oversee fund-raising, tennis court maintenance and activities
- 1987-89: Oxbow High School computer coordinator
- 1986-present: Member, NCTM
- 1986-1997: Member, VT-NEA
- 1986-1997: Developed and taught Differential and Integral Calculus as a laboratory course
- 1976-present: Member, North Country Chorus
- 1991-93: Organized and directed Valley Singers, a small a cappella choir
- 1993-present: Amateur astronomy as a serious hobby

Writing (general interest, Mathematics, puzzles, astronomy)

Published Articles

- 2010: *Cryptology and Mathematics: Secret Codes and Number Secrets*, a ten-week unit for gifted students produced by Duke University Talent Identification Program (DukeTIP)
- 2009: Wrote pilot lesson "Secret Codes and Number Secrets" for DukeTIP
- 2006: Monthly astronomy series (self-published at *Uncle Bob's Puzzle Corner*)

- 2005: Online interactive article "Shear Mathematics: Euclid's Paradoxicals Applied" for NCTM's OnMath
- 2004-present: *Uncle Bob's Puzzle Monthly* e-zine self-published with math, word, and logic puzzles, astronomy articles.
- 1998- 2005: "Uncle Bob's Puzzle Corner" math articles and puzzles for local monthly, *Behind the Times*, Bradford, VT
 - 1999: Four-articles of Favorites of the Night Sky in each season.
 - 1997: "Second Comet Show in as Many Years"
 - 1996: "The Sky -- We're Losing It", on the problem of light pollution.
- 2003: Four articles on astronomy highlights in each season
- 2003: Two articles published by Journal of Recreational Mathematics (JRM, Baywood Publications): "Trig or Treat" and "Calc Play II" and review of *ZomeTools* and *Zome Geometry*
- 2002: "Calc Play" published by JRM

Unpublished articles:

- 2006: "A Mesh of Gears" submitted to NCTM OnMath
- 2000: "Four Areal Views"
- 1997: "Champions of Mathematics Education Reform"

Professional References

Lyn Hawks, Coordinator of Independent Learning, Duke TIP, lhawks@tip.duke.edu

Dr. Jane Brandt, St. Paul's School, Concord, NH, jbrandt@sps.edu

Martha Rich, head, Thetford Academy, VT, Martha.Rich@thet.net

Dr. Wm. Roberts, Mathematics Department, Plymouth State University, wjr@plymouth.edu