

MATHEMATICS 349: FALL 2005:

COURSE SCHEDULE:

<u>Date</u>	<u>Topic</u>	<u>Readings</u>
	various handouts throughout the term	
Sept. 13	Introduction Expectations Northfield High School	“A Guide to Classroom Observation” <u>A Nation at Risk</u> (1983) <u>Everybody Counts</u> (NRC, 1989)
Sept. 15	NHS Visit/Classes	
Sept. 20	Who Should Study Mathematics The High School Classroom McNeil: “The Last Time You Used Algebra Was ...”	Steen: “Does Everybody Need to Study Algebra?” Steen: “Teaching Mathematics for Tomorrow’s World”
Sept. 22	NHS classes	
Sept. 27	Reform/Traditional Raimi: “A Brief Chronology and <i>Dramatis Personae</i> of the New Math (1951-1975, R.I.P.) Price: “President’s Report: Selling and Buying Reform: If They Come?” Friedberg: “Teaching Mathematics Graduate Students How to Teach” Overview of the NCTM Standards	Raimi: “Whatever Happened to the New Math?” We Build It, Will <u>Principles and Standards for School Mathematics</u>
Sept. 29	NHS classes	
Oct. 4 21st Century”	Lesson plans Riley: “The State of Mathematics Education: Building a Strong Foundation for the Askey: “Why does a negative times a negative = a positive?” Phi Delta Kappan: “NCLB: Dreams and Nightmares” NYT: “More Schools Rely on Tests, But Big Study Raises Doubts” (12/28/’02) video: “Good Morning, Ms. Tolliver”	Miller: “Begin Mathematics Class with Writing” Strong Foundation for the
Oct. 6	NHS classes	

- Oct. 11 Standards 9-12 Chazan: “Knowing School Mathematics”
 Finn: “What If Those Math Standards Are Wrong?”
 Apple, Romberg: “Do the Standards Go Far Enough?”
 American Educator: “Helping Children Learn Mathematics
 (Fall 2005)
 Feynman: “Judging Books By Their Covers”
 Forbes: “The Great American Textbook Scandal”
- Oct. 13 NHS classes
- Oct. 20 The Classroom; Assessment “What to Expect Your First Year of Teaching”
 Landsman: “A Menu of Ideas for a Manageable Classroom”
 “What Would You Do If?” Johnson: Every Minute Counts (1986)
 Crowley and Dunn: “The Mathematics Portfolio”
- Oct. 25 NHS classes
- Oct. 27 Teacher preparation Ma: Knowing and Teaching Elementary Mathematics
 Shreffler: “A Deeper Look at Elementary Mathematics”
 Herrera: “An Interview with Liping Ma”
 Askey: “Knowing and Teaching Elementary Mathematics”
 Kenshaft: “Racial Equity Requires Teaching Elementary
 School Teachers More Mathematics”
- Nov. 1 TIMSS ABC video
 “Right Teacher, Wrong Class”
 TIMSS video “Six Lessons”
- Nov. 3 NHS classes
- Nov. 8 Japanese classrooms Stevenson: “Learning from Asian Schools”
 Saul: “Reifying the Research: Mathematics Education
 In Taiwan”
 TIMSS video
 Single sex classes “Should Schools Offer All-Girl Math Classes?”
 “To Help Girls Keep Up, Girls-Only Math Classes”
 “All-Girl Schools Duck the Issue”
 Tyre: “Boy Brains, Girl Brains”
 “Right Teacher, Wrong Class”
 Fennema: Teachers’ Beliefs and Gender Differences in Mathematics (“Mathematics
 and Gender,” 1990)
- Nov. 10 NHS classes

Nov. 15

Reform Mathematics “Creative Math, or just ‘Fuzzy Math’?” + letters
Conclusions “Dumbing-down is a ‘Crime;’ Here’s Proof”

Wu: “Basic Skills Versus Conceptual Understanding:

A Bogus Dichotomy in Mathematics Education”

“Right Answer in Math Debate is to Seek a Balance of Old, New”

Klein and Milgram: “The Role of Long Division in the
K-12 Curriculum”

A Cuoco: “Mathematics for Teaching”

P.R.Halmos: “Mathematics as a Creative Art”

George Polya: “On Learning, Teaching, and Learning Teaching”

last week of classes or exam week teaching at NHS