PROJECT NExT
NEW EXPERIENCES IN TEACHING
2012-2013 FELLOWS

Workshop held in Madison, WI
July 30 - August 1, 2012

A program of

THE MATHEMATICAL ASSOCIATION OF AMERICA

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THE 2011-12 (peach11) PROJECT NExT FELLOWS
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MONDAY, JULY 30

11 am - 1:15 pm  Arrival and registration – Pyle Center Main Lobby

1:30 - 1:55 pm  Welcome and opening remarks – Pyle 325/326
Aparna Higgins, University of Dayton and Director of Project NExT

2:00 - 2:45 pm  Small group discussions – See information for assignments.
An opportunity to share your thoughts about the coming year with other Fellows.
Group A: Pyle 111  Group E: Pyle 226
Group B: Pyle 112  Group F: Pyle 309
Group C: Pyle 220  Group G: Pyle 317
Group D: Pyle 225  Group H: Pyle 320

2:55 - 3:55 pm  The Many Faces of Mathematical Proof – Pyle 325/326
Doug Ensley, Shippensburg University

3:55 - 4:25 pm  BREAK – Pyle Prefunction Space, 3rd Floor East

4:30 - 5:15 pm  Small group discussions [Same room assignments by group above, but your group assignment may have changed – see information.]
An opportunity to talk about teaching techniques with Fellows who work at institutions that are similar to your institution.
Group A: Pyle 111  Group E: Pyle 226
Group B: Pyle 112  Group F: Pyle 309
Group C: Pyle 220  Group G: Pyle 317
Group D: Pyle 225  Group H: Pyle 320

5:30 - 7:00 pm  DINNER – Dining Room in Lowell Center

7:15 - 8:30 pm  Panel: Joining the Mathematical Community – Pyle 325/326
Four Project NExT Fellows from previous years will describe how they became involved in various forms of service to the mathematics community.
Matthew DeLong, Taylor University
Heather Hulett, University of Wisconsin – La Crosse
Kim Roth, Juniata College
Christopher Swanson, Ashland University

8:30 p.m. - ?  INFORMAL SOCIALIZING
TUESDAY, JULY 31

6:30 - 8:00 am  BREAKFAST – available in Newell’s Dining Room in Smith Hall, if you are staying in the dorm

8:30 - 9:45 am  Selected topics in teaching undergraduate mathematics I [Five simultaneous sessions – See information for assignments.]
A. Visualization Techniques for Teaching Calculus – Julie Barnes, Western Carolina University, Pyle 112
C. Technically Speaking: Preparing Students to Communicate Technical Information in a Non-technical World – Lew Ludwig, Denison University, Pyle 309
D. Using Good Questions in Calculus – Kim Roth, Juniata College, Pyle DE227
E. (Free) Technology for Teaching Mathematics – John Travis, Mississippi College, Pyle DE232

9:55 - 10:25 am  BREAK – Pyle Prefunction Space, 3rd Floor East

10:25 - 11:40 a.m.  Panel: Deciding how to teach – Pyle 325/326
Each panelist will discuss a particular way of teaching or assessing, explaining the technique, its benefits and its limitations.
David Pengelley, New Mexico State University
Hortensia Soto-Johnson, University of Northern Colorado
Ron Taylor, Berry College

11:45 am - 1:10 pm  LUNCH – Pyle Center Main Dining Room

1:15 - 2:30 pm  Repeat of morning breakout sessions – see information for assignments.

2:40 - 3:40 pm  Something for Everyone – Pyle 325/326
Sarah Spence Adams, Olin College

3:40 - 4:10 pm  BREAK – Pyle Prefunction Space, 3rd Floor East

4:10 - 5:25 pm  Panel: The faculty member as teacher and scholar – Pyle 325/326
Panelists representing a variety of institutions will discuss what expectations early career faculty should fulfill for tenure at those institutions.
Katie Fowler, Clarkson University
Mickey McDonald, Kalamazoo College
Bruce Reznick, University of Illinois at Urbana-Champaign
Martha Siegel, Towson University

5:30 - 7:00 pm  DINNER – Dining Room in Lowell Center
(Tuesday, July 31, cont’d)
TUESDAY, JULY 31 (cont’d)
8:00 – 10:00 pm  Social Event for 2011-2012 and 2012-2013 Project NExT Fellows and presenters – Smith Hall, Laines Lounge

10:00 pm - ?  INFORMAL SOCIALIZING

WEDNESDAY, AUGUST 1

6:30 – 8:00 am  BREAKFAST available in Newell’s Dining Room in Smith Hall, if you are staying in the dorm

8:30 – 9:35 am  Informal discussions on topics proposed by the 2012-2013 Fellows  

9:35 – 10:05 am  BREAK – Pyle Prefunction Space, 3rd Floor East

10:10 – 11:25 am  Selected topics in teaching undergraduate mathematics II [Five simultaneous sessions – See information for assignments.]
   A. Undergraduate Advising – Suzanne Dorée, Augsburg College, Pyle 112
   B. Effectively Using Applied Writing Projects in Undergraduate Mathematics Courses – Gavin LaRose, University of Michigan, Pyle 225
   C. Using Video to Help Students Evaluate and Construct Proofs – Kay Somers, Moravian College, Pyle 226
   D. Experiencing Spherical Geometry: A Non-Axiomatic Approach to Teaching College Geometry – Christopher Swanson, Ashland University, Pyle DE227
   E. Functioning in Calculus: Combining Algebra, Precalculus, and Calculus for Underprepared College Students – Laura Taalman, James Madison University, Pyle DE232

11:30 am – 12:15 pm  Small Group Discussions with other Project NexT Fellows  
   (This session is organized by area of research. Please attend the group that best fits your research interests.)
   Group A: Algebra, Group Theory, Linear Algebra, Pyle 220
   Group B: Algebraic Geometry, Pyle DE232
   Group C: Analysis, Pyle 111
   Group D: Combinatorics, Graph Theory, Discrete Math, Pyle 226
   Group E: Number Theory, Mathematical Logic, Pyle DE227
   Group F: Geometry, Topology, Pyle 225
   Group G: Differential Equations, Dynamical Systems, Pyle DE332
   Group I: Math Biology, Pyle 313

12:15 – 1:30 pm  LUNCH – Pyle Center Main Dining Room

Wednesday Aug 1, cont’d
WEDNESDAY, AUGUST 1 (cont’d)

1:35 - 2:50 pm  Repeat of morning breakout sessions – See information for assignments.

2:55 - 3:25 pm  Planning session for January Meetings in San Diego, CA – Pyle 325/326

3:25 - 3:55 pm  BREAK -- Pyle Prefunction Space, 3rd Floor East

3:55 - 5:25 pm  Closing Session – Pyle 325/326
    Recognition of 2011-12 Fellows
    Presentation: Finding Your Niche in the Profession
    Joseph Gallian, University of Minnesota Duluth

6:00 – 7:30 pm  Mathfest Opening Reception (cash bar) – Level 1 of the Monona Terrace Convention Center

7:30 - 9:30 pm  Mathfest Opening Banquet

9:30 pm - ?  INFORMAL SOCIALIZING

THURSDAY AND FRIDAY, AUGUST 2 AND 3

Project NExT Courses during the Mathfest: Four-hour courses meeting in the Hilton Madison Monona Terrace on Thursday and Friday, August 2 and 3.

A. Teaching Mathematics for Future Teachers (With an Emphasis on K-8 Teacher Preparation) – Beth Burroughs, Montana State University, 1-3 p.m., Tenney, Hilton Madison Monona Terrace

B. Teaching Liberal Arts Mathematics Courses – Dale Buske, St. Cloud State University, 1-3 p.m., LaFollette, Hilton Madison Monona Terrace

C. Undergraduate Research—How to Make It Work – Aparna Higgins, University of Dayton, 1-3 p.m., Doty, Hilton Madison Monona Terrace

D. Using Inquiry to Teach Mathematics and Thinking – Carol Schumacher, Kenyon College, 1-3 p.m., Vilas, Hilton Madison Monona Terrace

E. When Life is Linear: Applications of Linear Algebra – Tim Chartier, Davidson College, 3:15-5:15 p.m., Tenney, Hilton Madison Monona Terrace

F. The World is More Random Than You Think: Big Ideas for Mathematicians Who Will Be Teaching Statistics – Richard Cleary, Bentley College, 3:15-5:15 p.m., LaFollette, Hilton Madison Monona Terrace

G1. Applying for Grants from the National Science Foundation – Jennifer Slimowitz Pearl, National Science Foundation, Thursday; Getting Your Research Off to a Good Start, Joe Gallian – University of Minnesota, Duluth, Friday; both days 3:15-5:15 p.m., in Doty, Hilton Madison Monona Terrace

G2. Getting Your Research Off to a Good Start, Joe Gallian – University of Minnesota, Duluth, Thursday; Applying for Grants from the National Science Foundation – Jennifer Slimowitz Pearl, National Science Foundation, Friday; both days 3:15-5:15 p.m., in Vilas, Hilton Madison Monona Terrace