

CURRICULUM VITAE

Dr. Hema Gopalakrishnan

Department of Mathematics
Sacred Heart University
5151 Park Avenue
Fairfield, CT 06432-1000
Phone: (203) 371 7939 (Office), (860) 257 4984 (Home)
E-mail address: gopalakrishnanh@sacredheart.edu
Web address: <http://faculty.sacredheart.edu/gopalakrishnanh/>

EDUCATION:

- Ph. D. Mathematics, December 1998, University of Wisconsin-Milwaukee
Specialization: Algebra (Ring theory)
Advisor: Professor Mark L. Teply
Title of dissertation: *On the π -Regularity of Semigroup Graded Rings.*
- M. S. Mathematics, August 1992, Marquette University
Title of Essay: *Orthodox semigroups with complemented congruence lattices.*
- M. S. Mathematics, May 1990, Bombay University.
- B. S. Mathematics, May 1988, Bombay University.

POSITIONS HELD:

Fall 2000 – present	<i>Assistant Professor</i> , Sacred Heart University
Fall 1999 – May 2000	<i>Teaching Assistant</i> , UMass, Amherst
Fall 1998 - May 1999	<i>Lecturer</i> , Texas A & M University
Fall 1992 - Fall 1997	<i>Teaching Assistant</i> , UW – Milwaukee
Fall 1990 - Fall 1992	<i>Teaching Assistant</i> , Marquette University
Fall 1993 - Spring 1995	<i>Instructor</i> at the Saturday Academy, UWM and Milwaukee Public Schools.

TEACHING EXPERIENCE:

Classes taught at Sacred Heart University:

- Modern College Mathematics
- Precalculus: Algebra and Trigonometry (taught with TI-83).
- Statistics for Decision Making (taught with TI-83 and the computer software, Winks).
- Statistics for Decision Making (Online) (taught with Microsoft Excel).
- Calculus for Decision Making (taught with the TI-83).
- Calculus I (with Maple), Calculus II, Calculus III (with Maple)
- Linear Algebra (with Maple)
- Differential Equations (with Maple)

Senior Projects Mentored at Sacred Heart University:

- “Fibonacci Numbers and its Applications” in Fall 2004
- “Proofs that Really Count” in Fall 2005

Classes taught at Texas A & M (2 semesters):

- Calculus for Life Science majors and Calculus for Business majors (taught with TI-83). Experience in teaching large classes of 100+ students.
- Engineering Calculus III.

Courses taught at UW-Milwaukee (15 semesters):

- Calculus I and II.
- Precalculus: Algebra and Trigonometry (taught with TI-81).
- Intermediate Algebra.
- Mathematical Explorations for Elementary teachers – I and II.

Discussion sessions conducted at UW-Milwaukee and Marquette University (5 semesters):

- Calculus I, Calculus II, Calculus III and Business Calculus.

Instructor at the Saturday Academy in Milwaukee:

Saturday academy is a vital component of Equity 2000, the College Board’s national, and district wide, systemic education reform initiative. The purpose of the project is to provide motivational enrichment activities for students who may not have had rigorous academic experiences at the elementary level, and who therefore need support to meet the challenge of a demanding, college-preparatory curriculum.

My work in the Saturday Academy involved team teaching and writing a project report.

PROJECT NExT:

Project NExT (New Experiences in Teaching) is an MAA program for new or recent Ph. D.'s in the mathematical sciences that addresses a broad range of professional issues, focusing on the teaching and learning of undergraduate mathematics. I am a 2001-2002 Project NExT fellow.

RESEARCH INTERESTS:

Non-commutative ring theory, Semigroup theory, Computational Algebraic Geometry, and Graph Theory.

REFEREED PUBLICATIONS:

1. "Primitive Ideals of Semigroup Graded Rings" Kyungpook Math. J., 44, 2004, 565-573.
2. "Think-Share-Write: An effective Strategy for Group Quizzes", PRIMUS, 2004, 156-161.
3. " π -regular semigroup graded rings" Communications in Algebra, 30(2), 2002, 977-1000.
4. "On the index of nilpotency of semigroup graded rings", Semigroup Forum 2001, No. 62, 146-158.

TALKS AND SEMINARS ON MATHEMATICS :

1. "Semigroup Graded Rings and V-Rings", at the Joint AMS-MAA Meeting in Atlanta, Georgia in January 2005.
2. "Primitive Ideals of Semigroup Graded Rings" at the Spring Central Section Meeting of the AMS in Athens, Ohio in March 2004. (Invited talk)
3. " π -regularity of Munn rings and inverse semigroup rings" at the AMS conference in Denton, Texas in May 1999. (Invited talk)
4. " π -regular band graded rings of bounded index" at the Annual AMS Meeting in San Antonio, Texas, in January 1999.
5. " π -regularity of some semigroup graded rings" at the Denison Conference, Denison, Ohio, in May 1998.
6. Seminar on Homological Algebra at UW – Milwaukee, Fall 1995.
7. Seminar on Algebraic Groups at UW – Milwaukee, Fall 1994.
8. Seminar on Semigroup theory at Marquette University, Fall 1991.

TALKS ON PEDAGOGY:

1. “Group Quizzes using the Think-Share-Write method” at the MAA/NES meeting in Wellesley, MA in Nov. 2003.
2. “Group Work and Technology in teaching Undergraduate Mathematics” presented at the International Conference on College Teaching and Learning” in April 2003.
3. “Group Work Works” a panel discussion at the Faculty Institute in Sacred Heart University in Fall 2002.

CONFERENCE SESSIONS ORGANIZED:

1. Co-chair of the Program Committee for the MAA/NES meeting in June 2005 at Bates College, ME.
2. Served on the Program Committee for the MAA/NES meeting in June 2004 at Roger Williams University, RI.
3. Organized a session on “Making In-Class Groups Work” at the Project NExT meeting in August 2002 at the University of Vermont, VT.

OTHER CONFERENCES ATTENDED:

1. CBMS Lecture Series on Computational Algebraic Geometry, College Station, TX (2002)
2. Project NExT and MAA meetings, Madison (2001)
3. Annual AMS Meeting, New Orleans (2001)
4. Maple training session, Albany (2000)
5. AMS Conference, Denton (1999)
6. Annual AMS Meeting, San Antonio (1999)
7. Denison Conference, Ohio (1998)
8. Annual AMS Meeting, Baltimore (1998)
9. AMS Meeting, Milwaukee (1997)
10. Denison Conference, Ohio (1996)
11. Mid West Ring Theory Seminar, Madison (1996)

REFEREEING EXPERIENCE:

Referee for publications in “Communications in Algebra”. Refereed 5 papers on Ring Theory.

PROFESSIONAL AFFILIATIONS:

- American Mathematical Society
- Mathematical Association of America

HONORS:

- National Scholarship from the University Grants Commission, India, 1988 -1990.
- Nominated for Teaching Award, Sacred Heart University, 2005

OTHER PROFESSIONAL EXPERIENCE:

Experience with LaTeX, AMS-LaTeX, Scientific Workplace, Maple, Minitab, SAS, and HTML programming. Course work in Fortran programming. Knowledge of object-oriented programming. Coursework in Probability and Statistics, Regression analysis, Multivariate Statistics at the graduate level.