

Sabbatical Report Fall 2007

The History of Mathematics at Grand Valley State University

Dr. Theodore A. Sundstrom

The primary goal of my sabbatical project for fall 2007 was to write a first version of the history of mathematics at Grand Valley State University and to have a first version of this history available on the Internet by the end of the 2007-08 academic year. This goal was accomplished. The web site is www.gvsu.edu/mathhistory/ and a site index for this web site is attached to this report as an appendix. As I had indicated in my sabbatical proposal, I will continue to work on this web site, and I plan to write a version of this history that is ready for printing that should be completed in about one year. In addition, I presented a department seminar on March 11, 2008, in which I gave a report to the department on my sabbatical project, and I am scheduled to participate in this year's CLAS Sabbatical Showcase on Friday, April 18, 2008.

As part of Grand Valley State University, the Department of Mathematics and other mathematical communities within Grand Valley share in Grand Valley's history. Mathematics is an important part of any university, and mathematics has had its own unique history at Grand Valley. One of the main goals of this project was to produce a narrative history of mathematics at Grand Valley that would focus on the mathematics curriculum and the accomplishments of the faculty. As such, the history of mathematics web site documents the history of the mathematics curriculum, including course descriptions and the significant changes to the mathematics major over the years. In addition, the web site documents the accomplishments of the faculty including descriptions of the sabbatical awards granted to mathematics faculty members, a list of awards granted to mathematics faculty members, and descriptions of the publications by mathematics faculty members. This web site will be an ongoing project in that I will continue to make additions and revisions each year.

Following are some important features of the History of Mathematics at Grand Valley web site.

- A history of the mathematics curriculum including:
 - A history of the mathematics major.
 - A history of the calculus sequence.
 - A history of general education and basic skills courses. (Still under construction.)
 - A history of MTH 210 – Communicating in Mathematics.
- A history of mathematics during the college era (1968 – 1983) including Thomas Jefferson College, William James College, and Kirkhof College (College IV).
- A list of faculty (including degrees and rank) of mathematics faculty who have been at Grand Valley. This includes tenure-track faculty, affiliate faculty, and visiting faculty.
- A description of sabbatical awards for mathematics faculty including links to some sabbatical proposals and reports.

- A list of professional awards given to mathematics faculty.
- Documentation of the scholarly works of mathematics faculty including books and articles published, professional presentations, and department seminars.
- Some historical data including annual reports of degrees awarded in mathematics, degrees awarded by gender, degrees awarded by ethnicity, and the number of mathematics majors.

One technological issue that I had to deal with before beginning this sabbatical was to learn more about creating and maintaining web pages. I do have a personal web page for Grand Valley and do maintain two web pages for a book that I have written (*Mathematical Reasoning: Writing and Proof*, second edition, © 2007 Pearson Education, Inc.), but these are very basic web pages that provide basic information and allow users to download files from the web site. I was fortunate to find a seminar conducted by Dave Poortvliet of Academic Computing about Grand Valley's "Content Management System." After this seminar, I have been able to use the Content Management System to create and maintain the web site for the history of mathematics at Grand Valley.

In preparing the proposal for this sabbatical and during the sabbatical, I had the opportunity to consult with Dr. Lynn Mapes of the Department of History at GVSU. These meetings were quite helpful in writing the proposal and proved to be extremely helpful during the sabbatical. I met with Dr. Mapes five or six times during the fall 2007 semester, and he was able to give me helpful advice on where to look for useful material. At times, he also gave me some needed support as I found the process of historical research slow and at times, a bit frustrating. Resources were sometimes hard to find. For example, I was a bit dismayed that I could not find copies of the minutes of department meetings for several years. In fact, I was only able to find department minutes for about three years in the early 1970's, for about three years in the late 1980's, and since 1995. However, the minutes from 1995 contained very little information and were not helpful for this project. I was, however, able to find newsletters for the Department of Mathematics since 1985 and these proved to be quite helpful.

I would like to thank Dr. Mapes for his assistance with this project. I would also like to thank Ms. Nancy Richard for the assistance she gave me at the University Archives, which was my primary resource for this project was the University Archives. During the fall 2007 semester, I made a visit to the University Archives almost every week. Ms. Nancy Richard was very helpful in assisting me during my visits and helping me find materials for this project. Finally, I would like to thank my colleagues in the Department of Mathematics, the College of Liberal Arts and Sciences, and Grand Valley State University for giving me the opportunity to spend a semester of focused work on this project.

Appendix A

Site Index for the History of Mathematics at Grand Valley Web Site

Home Page

History of the Curriculum

- The Mathematics Major
 - The Mathematics Major in the First Three Years
 - The Mathematics Major from 1966 to 1974
 - The Mathematics Major from 1974 to 1980
 - The Mathematics Major from 1980 to 1987
 - Capstone Course and Degree Cognates in 1987
 - The Mathematics Major from 1988 to 1998
 - Redesigning the Major - 1998
 - The Mathematics Major Since 1998
- The Calculus Sequence
 - Calculus During the First Two Years
 - Calculus from 1965 to 1973
 - Calculus from 1973 to 1983
 - Calculus from 1983 to 1988
 - Calculus from 1988 to 1995
 - Textbooks Used for Calculus
 - Registration History for Calculus
 - The Calculus Archive
- MTH 210 Communicating in Mathematics
 - Writing Guidelines for MTH 210
 - Examples of Portfolio Projects
 - Important Dates for MTH 210
 - Textbooks Used for MTH 210
 - Registration History for MTH 210
- The Cluster Colleges
 - Thomas Jefferson College
 - William James College
 - Kirkhof College (College IV)

Faculty

- Current Faculty
 - Tenure Track Faculty (A to F)
 - Tenure Track Faculty (G to L)
 - Tenure Track Faculty (M to R)
 - Tenure Track Faculty (S to Z)
 - Affiliate Faculty
 - Visiting Faculty
- Former Faculty
 - Faculty Emeriti
 - Full Time Faculty (A to F)
 - Full Time Faculty (G to L)
 - Full Time Faculty (M to R)
 - Full Time Faculty (S to Z)
 - Visiting Faculty
 - Statistics Faculty
 - CSIS Faculty
- Faculty Time Line

Faculty Scholarship and Awards

- Faculty Awards
 - Professional Awards
 - Sabbatical Awards
- Books
- Articles and Book Chapters
 - Summary of Publications
 - 2004
 - 2003
 - 2002
 - 2001
 - 2000
 - Accepted for Publication
 - 1999
 - 1998
 - 1997
 - Prior to 1997
 - 2007
 - 2006
 - 2005
- Talks and Presentations
 - Summary of Presentations
 - 2005
 - 2004
 - 2003
 - 2007
 - 2006
 - 2002
 - 2001
- CSIS Publications

Department Seminars

- 2007
- 2006
- 2005
- 2004
- 2003
- 2002
- 2001
- 2000
- 1998 – 1999
- 1996 – 1997
- 1992 - 1995
- 1998 – 1991
- Prior to 1988

Students

- Early Career Profiles

Historical Data

- Degrees Awarded
- Degrees Awarded by Gender
- Degrees Awarded by Ethnicity
- Number of Majors Each Year

Links to GVSU Sites

- Department of Mathematics Home Page
- GVSU Home Page
- History of GVSU

Appendix B
Resources Used for the Content of
the History of Mathematics at Grand Valley Web Site

- Grand Valley catalogs from 1963-64 to 2007-08.
- The University Archives. Special thanks to Ms. Nancy Richard.
- President's Report 1960 to 1964.
- President's Report 1964 to 1968.
- Department minutes.
- Department newsletters.
- Interviews with Prof. Marvin De Vries, Prof. P. Douglas Kindschi, Prof. Philip Pratt, Prof. Donald Vander Jagt, Prof. Bruce Klein, and Prof. Georgianna Klein.
- Curriculum Vitae of current faculty members and some former faculty members.
- The Office of Institutional Analysis and the web site for the Office of Institutional Analysis.