

Math 3000-50 History of Mathematics
Fall 2009 CRN:43712
M 5:15~7:45 Room: NIB 150

INSTRUCTOR: Dr. Clare Banks, banks@dixie.edu Office: NIB 138 Phone: 652-7982
Office Hours: MTWR 8 ~ 8:50 AM, 11~11:50 AM and by appointment.

TEXT: There is no required text for this class. Most of your readings will be from Dr. Donald Allen's website (www.math.tamu.edu/~dallen/masters/) and other resources.

PREREQUISITES: Math 1220 with an earned grade of C or better.

DISABILITIES: If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your professor(s) from the Disability Resource Center within the first two weeks of the beginning of classes. Students are to contact the center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability.

You may call (435) 652-7516 for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973.

Their office is located in the Student Services Center, Room #201 of the Edith Whitehead Building.

CHEATING AND DISRUPTIVE BEHAVIOR Cheating and disruptive behavior will not be tolerated. Dixie State College policy on Academic Dishonesty is explained on the website <http://www.dixie.edu/humanres/policy/sec3/334.html>

Policy for Absences Related to College Functions:
<http://www.dixie.edu/humanres/policy/sec5/523.html>

IMPORTANT DATES: Please see <http://new.dixie.edu/reg/?page=fall2009> for important dates.

DMAIL: Important class and college information will be sent to your Dmail email account. This information includes your DSC bill, financial aid/scholarship notices, and notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a Dmail email account. If you don't know your user name and password, go to www.dixie.edu and select "Dmail," for complete instructions. You will be held responsible for information sent to your Dmail email, so please check it often.

**WEBSITE
RESOURCES**

Tutoring <http://dsc.dixie.edu/tutoring/index.htm>
Library <http://library.dixie.edu/>
Writing Center http://new.dixie.edu/english/dsc_writing_center.php
Testing Center <http://new.dixie.edu/testing/>

**COURSE
DESCRIPTION
FROM
CATALOG**

Designed for all interested students. This course is a brief survey of the history of mathematics and its impact on world culture. Emphasis will be on the principal ideas of importance in the development of the subject, mathematical motivations and applications. This course will partially fulfill requirements for Mathematics Endorsements Level 4 Math Ethics through the Utah State Office of Education.

OBJECTIVES:

All classes in mathematics at Dixie College support the general education goals of the college. Each class will:

- Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations and/or calculus techniques.
- Provide students with application problems that use a variety of methods including arithmetical, algebraic and geometric methods.
- Challenge students to make inferences from mathematical models that include formulas, graphs and tables.
- Provide students with real-life applications that use a variety of mathematical functions.

Objectives for Math 3000:

- Students will learn the development of mathematics in various areas of mathematics such as Algebra and Calculus
- Students will learn the contributions of a variety of cultures to the development of mathematics.
- Students will learn how to solve mathematics problem in the style of each culture under study.
- In completion of the course, students will better understand current mathematics through knowing the origins of mathematics.
- Students will learn how to use library resources and the internet to perform mathematical research; they will also further their ability in communicating mathematics in both written and orally.

**COURSE
WORK:**

The student's final grade will be determined by her/his performance on homework(15%), 3 exams (50%), class activities/participation (10%), Poster presentation (10%) and a final research project/report.(15%).

GRADES:

Grades will be based on the percentage of total possible points that you earn during the semester. Grades will be assigned as follows:

Percent	Grade	Percent	Grade	Percent	Grade
94-100	A	80-82	B-	60-64	D+
90-93	A-	75-79	C+	55-59	D
87-89	B+	70-74	C	50-54	D
83-86	B	65-69	C-	<50	F

EXAMS

There will be 3 scheduled in class exams, they will not be cumulative. Final Exam Date will be Monday, December 14 from 5:15~7:45.

HOMEWORK

Homework will be assigned and collected regularly. Late homework will not be accepted without permission. Assignments should be completed individually and show all of your work.

ATTENDANCE/PARTICIPATION

This class requires comprehensive reading. You need to read all the assigned readings and be actively involved in class activities and discussions. Sometimes you may need to lead the discussion.

POSTER PRESENTATION

Each student needs to choose a mathematician to present to the class.

FINAL RESEARCH PROJECT/REPORT

Each student needs to choose a topic that interests you to work on a research project.

Lecture Schedule (Tentative)

This course is following the outline of G. Donald Allen, Texas A & M University. Dr. Allen has given permission to use his material. <http://www.math.tamu.edu/~dallen/masters/>

Aug 24	Origins of Mathematics (Chapter 1)
Aug 31	Egyptian Mathematics (Chapter 3)
Sep 7	No Class
Sep 14	Babylonian Mathematics (Chapter 3)
Sep 21	Ancient Greek Mathematics (Chapter 4, The Early Period)
Sep 28	Ancient Greek Mathematics (Chapter 4, The Hellenistic and Classical Period)
Oct 5	Exam I
Oct 12	Islamic & Medieval Mathematics (Chapters 5 & 6)
Oct 19	Chinese Mathematics (McTutor) http://www.gap-system.org/~history/Indexes/HistoryTopics.html
Oct 26	Renaissance Mathematics (Chapter 7)
Nov 2	Transition Period (Chapter 8)
Nov 9	Calculus (Chapter 9)
Nov 16	Exam II
Nov 23	Presentation
Nov 30	Presentation
Dec 7	Presentation
Dec 14	Exam III