

Course Syllabus
Math 467W.11
The Evolution of Mathematics
3 Credits
Spring 2009

1. **Class meeting information:** Class meets in 201 LDB
Tuesday and Thursday 8:00 - 9:30 am
2. **Professor:** Dr. Jacqueline Jensen
Office: 410 Lee Drain
Office Phone: 936-294-3517
e-mail: jensen@shsu.edu
web-page: http://www.shsu.edu/~mth_jaj
3. **Office Hours:**
Tuesday and Thursday 9:30 - 10:30 am
Wednesday 9:00 - 10:00 am and 1:00 - 2:00 pm
and, of course, by appointment.
4. **Course Description:** An introduction to the historical development of fundamental mathematical ideas from antiquity to the present. Writing Enhanced. Students taking Math 467 must have completed Math 143 with a grade of C or better or have consent of instructor. Class will be focused around student presentations and discussions.
5. **Course Objectives:** Students completing this course should have mastery of the following major concepts. Other techniques and ideas will also be covered.
 - numeral systems
 - Babylonian and Egyptian mathematics
 - Pythagorean mathematics
 - Euclidean mathematics
 - Later Greek mathematics
 - Chinese, Hindu, and Arabian mathematics
 - European mathematics up through the 19th century
6. **Required Textbook:** *A History of Mathematics* (2nd edition), Carl B. Boyer, ISBN 0-471-54397-7.
7. **Required Supplies:** No other supplies required.
8. **Attendance Policy:** Students are expected to attend every class. If class must be missed, the student is expected to get the notes from a classmate, and to check the web-page for announcements and updated assignments. The professor will keep a record of attendance.
Tardiness: Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class and posted on the web-page.

9. Assignments:

(a) Semester Project:

Each student will be responsible for presenting the material from a chapter or set of chapters in the book. The student can decide to focus on material in the textbook or other topics related to the chapters assigned. This research will be presented during Tuesday classes, and related homework will be assigned by the instructor (see below).

Students will choose topics and be assigned presentation days in class on **Thursday, January 15th**. This research project will culminate in a paper due at the end of the semester, detailing the information presented in class and other relevant information. A rough draft of all papers will be due on **Tuesday, March 17th**. This rough draft must include references and citations. The rough drafts will be read by the instructor and one of your classmates, so you should provide two copies of your paper that day. All final drafts of projects will be due on **Thursday, April 30** during class. Papers must be typed (preferably in LaTeX) and final versions should be submitted in both paper form and electronically. They will be posted to the class webpage so that students can have them as references when studying for the final exam (see below). **No late assignments will be accepted.**

You will be graded both on the presentation given during class and the paper submitted at the end of the semester, with smaller deadlines as mentioned above. This is a significant portion of your grade and should represent a significant effort on your part. This project is worth 20% of your grade.

Any student who plagiarizes any portion of the assignment will receive a 0 on the entire project and will be reported to the Dean of Students. Students may receive a grade of F for the course if caught plagiarizing.

(b) Homework:

There are two types of homework assignments in this course: summary and reaction papers, and mathematics assignments. We will discuss each of these individually.

i. Summary and Reaction Papers

The course will be focused around student presentations about historical information. In preparation for these presentations, each student is expected to have read the chapter(s) to be discussed before coming to class on Tuesdays. In preparation, each student will write a short (1-2 page, typed) overview of the material to be presented. This should highlight the main ideas of the chapter and ensure that you are prepared for a more in-depth discussion of the material.

After the chapter(s) are presented by a student in the class, sometimes with a focus other than that taken by the book, each student will write a short (1-2 page, typed) reaction to the material presented the previous class. This should address not only the highlights of the presentation, but also discuss what you found most interesting or most surprising about the presentation. This is your chance to ask further questions about the topic and bring up points that you feel still need to be addressed by the presenters as they are preparing their final project. Reaction papers are due in class on the Thursday immediately following the presentation.

If it is more convenient, these papers can be submitted via email to jensen@shsu.edu, either in .doc or .pdf form. **Do NOT submit electronic documents in .docx form.**

These papers will each be graded out of 10 points, and will be graded for completeness, coherence, spelling and grammar. **No late assignments will be accepted.**

Any student who plagiarizes any portion of the assignment will receive a 0 on the entire paper and will be reported to the Dean of Students. Students may receive a grade of F for the course if caught plagiarizing.

ii. Mathematics assignments

Mathematics problems will be assigned to go with each presentation, and will be due on the Thursdays after the chapters are presented. Assignments can be found online at:

http://www.shsu.edu/~mth_jaj/math467/schedule.s09.html

Mathematics assignments will be due each Thursday in class, and then homework problems will be discussed in class. Not all problems assigned will be collected. This will be made clear at the time of the assignment. However, it is in your best interest to complete all problems assigned.

It is your responsibility to ask questions about homework problems which you were not able to complete or did not understand, especially regarding problems which are not collected. It is your responsibility to come to office hours, or otherwise contact someone for help. You may contact me via e-mail if you cannot make it to office hours, and I will try to answer questions as clearly as I can via e-mail.

No late assignments will be accepted.

iii. **Homework Format:** All homework should have your name on the top. You should write out the problem to be answered, or at least paraphrase it on your homework paper. All homework must have ragged edges trimmed. Also, homework must be legible and neat. Homework not conforming to these standards will not be graded. Remember that this is a writing enhanced course, and your work should reflect those standards. In other words, you should use complete sentences and form a coherent argument or description in your solutions. **At least one problem per week must be typed (preferably in LaTeX) and submitted in that form.**

iv. **Class participation:** This will count towards your homework grade. Students will be asked to share their solutions to problems. Students will be called on to present problems, so you should have complete and coherent solutions to all problems when you arrive in class on Thursday morning. During student presentations, the rest of the class is encouraged to ask questions, and to think critically about the solution presented by the classmate. The class will be responsible for making sure that solutions presented are correct.

v. **Grading** Papers, class participation, and mathematics assignments together will count for 25% of your grade.

10. **Exams:** There will be two exams during the semester. They are tentatively scheduled to occur on **Thursday, 12 February** and **Thursday, 26 March**. Any changes to this schedule will be announced in class and posted on the web-page. If a student misses an exam, the student will be allowed to replace that exam score with their score on the final exam if the student takes and passes the next exam at the regularly scheduled time.

The **final exam** will be held on Thursday, 14 May, 2008 from 8:00 - 10:00 am in our regular classroom. It will be comprehensive.

11. **Grading Plan:** The course grade is based on:

Homework and Class Participation	Project	Exam 1	Exam 2	Final Exam
25%	20%	15%	15%	25%

The course grade will be assigned via the following table:

Percentage earned	90 - 100%	80 - 89%	70 - 79%	60 - 69%	0 - 59%
Grade	A	B	C	D	F

There is no additional curve in this class, and no extra credit, so keep up as the semester progresses.

12. **Academic Dishonesty:** All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. **Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action.** The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on and examination or other academic work which is to be submitted, **plagiarism**, collusion and the abuse of resource materials.
13. **Classroom Rules of Conduct:** Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Since they are to be turned off, they should not be visible in class. If cell phones become an issue in class, students will be asked to leave if their phone should ring during class.

Students are prohibited from using tobacco products in class, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.
14. **Visitors in the Classroom:** Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.
15. **Additional Information** All information on this syllabus is subject to change. Any changes will be announced in class.