

**IDS 101 – College Colloquium: Mathematics of the Ancient World**  
**Fall 2007**  
**Syllabus**

<b>Instructor:</b>	Dr. Colin Starr	<b>Office Hours:</b>	MTWF 10:10 - 11:20
<b>Office:</b>	Collins 308		MH 1:50 - 2:30
<b>Office Phone:</b>	(503) 370-6419		Others by appointment
<b>Home Phone:</b>	(503) 585-4088		
<b>e-mail:</b>	cstarr@willamette.edu	<b>My URL:</b>	<a href="http://www.willamette.edu/~cstarr">http://www.willamette.edu/~cstarr</a>

**Required Texts:**

1. *Episodes from the Early History of Mathematics*, by Asger Aaboe (provided).
2. *The Emergence of Number*, by J. N. Crossley.
3. *A History of Chinese Mathematics*, by Jean-Claude Martzloff.
4. *A Pocket Style Manual*, Fourth Edition, by Diana Hacker.

**Course Description:** We take a lot of simple mathematics for granted, but every idea was new at some time, and when it was new, it was not simple. Where did the idea of zero come from? Who first noticed that the ratio of a circle's circumference to its diameter is a constant? Why are Arabic numerals superior to Roman numerals? What can one compute with an abacus?

This College Colloquium will look at the mathematics of the ancient world (pre-Christian era), focusing on seminal developments in Greece, the middle east, and China, with possible forays into other regions. We will be thinking and writing about the origins of important ideas in mathematics and about the development of abstraction in human thought.

This course is also intended as your "introduction to college" and "introduction to college writing." Accordingly, we will be doing a lot of writing and revising. These are skills that will help you throughout college and beyond.

**Grading:** The following components make up your grade:

1. **Participation (200 points):** This is a seminar course. That means that there will be few lectures and no exams; most of our time will be spent discussing the texts and reading each others' writing. Because of this, your participation is of the highest importance, and I will be evaluating it daily. I will "grade" on a two-point scale: 0 for no or insignificant participation, 1 for some participation, and 2 for full engagement.

Participation includes voicing your opinion, asking questions, offering insights, etc. Expect others to disagree with you from time to time, as you will disagree with them, and always treat each other with respect as you respond.

I will provide reading questions to help you focus as you read. These will serve as a starting point for our discussion, but our discussion will range over whatever we collectively find most interesting. The questions will be posted on our course website.

It will help immensely in this class and others if you take careful notes as you read. Write down your questions and thoughts, and don't be afraid to mark up your book. Then when you attend class, you are better prepared and will get a lot more out of class time.

2. **Writing Assignments (600 points):** One of the most important parts of this course is the introduction to college writing. We will place a great deal of emphasis on *rewriting*, and we will have three drafts for each paper. We will take time every other week to critique each others' drafts. Take this very seriously! You are helping your classmates as they are helping you (and you will be graded on your critiques; see below).

We will also have smaller, approximately daily writing assignments. Typically, these will take the form of writing up the content of our discussions, specifically what you found most interesting or relevant and why. (Not “minutes”!) There may be other assignments that arise as a result of our discussions, too. Most of these will be pretty short (less than one page), but they should still be typed. These will be worth a total of 200 points in the course.

There will be two major writing assignments this semester. Drafts are due on the following dates and have the following point values.

Paper	Draft 1		Draft 2		Final Draft	
	Due	Value	Due	Value	Due	Value
1	9/14	30	9/28	50	10/10	70
2	10/26	30	11/9	50	11/21	70

As part of your writing assignment, you will sign up for two hours on each paper with our writing consultant, Tolly Davis. You should make a one-hour appointment on two of your three drafts; which two will be up to you. Be sure that you go in *prepared*. She will help you with what you have; it is not her job to write your paper for you. Take your drafts, your notes, your reviews from classmates, and your reference materials, and anything else you think may be relevant. Tolly will report to me on how prepared you were. These sessions are worth an additional 25 points each. These should be easy points! The only way to blow them is to miss your appointment or go in unprepared.

- Critiques (200 points):** We will devote some days to critiquing each other’s papers. I will assign you a partner; you and your partner will review each other’s papers for 20 minutes. After 20 minutes, you will discuss your suggestions with your partner, spending 5 minutes on each paper. I will then announce a second pairing for the day. At the end of the class, you will reclaim your paper and take the reviewers’ comments to consider. When you turn in the next draft of your paper, you will also turn in your reviewers’ comments and a rating of each of your reviewers for the week: 0 for not useful, 1 for somewhat useful, and 2 for very useful. **NOTE:** Your ratings will be confidential. When I return the final draft of your paper, I will also give you a summary of the ratings of your reviews. No one will know what anyone else said about his or her reviewing; I will give you an average over the six people you reviewed on each paper.

Please note that when you are rating your reviewers, you are rating them on how *useful* their comments were. Even if you did not ultimately take a reviewer’s suggestion, if it made you think more about why you wanted the paper the way you had it, then it was useful. Along the same lines, the number of suggestions should not determine your reviewer’s score.

The critiques of each other’s papers serve two purposes. The more obvious purpose is to help your classmate write a better paper. The less obvious purpose is to hone your critical reading skills. Read carefully and thoroughly for content. Are the arguments well crafted and supported? Do they make sense? Is the author just filling space, or does he or she make a point concisely?

In addition, you should focus on what you are reading and not who wrote it. Whether the author is your best friend or that crazy guy you just can’t stand, you should approach the paper in exactly the same way. Again, you always should be respectful in making your criticisms, and you will certainly appreciate a respectful attitude from your classmates.

That being said, don’t hold back on your criticisms! You are not being kind to overlook a flaw in writing or reasoning; the harshest criticisms can make the largest improvements in a paper. (Just be courteous!) The key as the recipient of criticism is not to take it personally: the criticism is of the paper, not the person.

Some criticisms will be justified and others not; as the author, you will have to learn to weigh them and choose those that are useful. It is best if you can weigh them dispassionately, so try to divorce your ego from your writing, at least in the rewriting stage.

A final word: you are not copy-editing. Grammar, spelling, and punctuation are up to the author. Your job as a reviewer is to analyze the arguments, content, style, and organization.

In addition to your peer ratings, I will be grading your critiques (critiquing your critiques!) based on the legitimate effort I perceive that you are giving to a useful critique. I am not basing it on how much ink I see you put on the paper! It is much more important that you offer useful insights than that you say a lot. (Keep this in mind when you are writing, too.)

**Plagiarism:** A word on plagiarism: **DON'T**. Plagiarism is claiming someone else's work as your own, and it is simply cheating. If you quote someone, you must explicitly say so. This applies not only to the exact words used, but also to the sense and the structure. In other words, just changing some of the words does not fix the problem! You must write everything **completely** in your own words. If you have any questions about whether something constitutes plagiarism, **ask me or another faculty member!** I will be very strict with any infractions.

**Format for papers:** Every draft of every paper must be typed, double-spaced, and stapled (if more than one page), and you are to use correct grammar, spelling, and punctuation on all drafts. A Pocket Style Manual by Diana Hacker will help with this; make sure you use it!

You will be submitting your papers via turnitin.com. Most, if not all, of your writing classes will require that you submit papers this way, so this class will give you a chance to learn the mechanics of it.

For critique sessions, bring two copies of your paper (one for each reviewer).

**Contacting Me:** My office hours are the times you can be sure to find me in my office (or at least nearby). I am usually there anyway, and you are welcome to come by even if it is not during my office hours. Also, I check my e-mail frequently on weekdays.