

**Math 1120****The Spirit and Uses of Mathematics 2****Spring 2011**

Section 001	9-9:50 MWF	ECCR 155	Strider McGregor-Dorsey Zachary.Mcgregor-Dorsey@colorado.edu
Section 002	10-10:50 MWF	ECCR 1B51	Bryce Christenson Bryce.Chriestenson@colorado.edu
Section 003	12-12:50 MWF	ECCR 1B51	Jason B. Hill Jason.B.Hill@colorado.edu

**Prerequisites:** One year of high school algebra and one year of geometry.

**Book:** *A Problem Solving Approach to Mathematics for Elementary School Teachers*, 10th Edition, by Billstein, Libeskind, and Lott (Addison Wesley Longman)

**Website:** Please see

<http://math.colorado.edu/~hilljb/s2011math1120>

for homework assignments, exam review, and other information relevant to the course.

**Volunteer!!** Several Boulder Valley Elementary Schools are looking for volunteers to help with math, at various grade levels and various times of day. If you are interested in volunteering, please send an email to Professor Eric Stade, Chair of the Mathematics Department, at [stade@colorado.edu](mailto:stade@colorado.edu). Dr. Stade will be able to tell you about the available opportunities, and can put you in touch with volunteer coordinators at the appropriate school(s).

Note: your volunteering at any of these schools DOES count towards the 25 hours working with children required of applicants to the teacher education program at the CU School of Education. To get credit for these hours, you must have a supervisor at the school complete a Youth Experience Assessment Form (see our webpage for details).

**Undergraduate Mathematics Resource Center:** (A.K.A. “The Center”) You may seek assistance with your math questions at the Undergraduate Mathematics Resource Center, which will be open Mondays through Thursdays 9 AM–6 PM, and Fridays 9 AM–2 PM, on school days, in Math 175. You may request help from any of the tutors present at the lab.

**Whom the course is designed for:** Prospective elementary school teachers; any student in the liberal arts who is interested in the material covered.

**QRMS Warning:** This course is not the quickest or easiest way to fulfill the QRMS requirement of the College of Arts and Sciences! You need to take both Math 1110 *and* Math 1120 to get credit for the QRMS requirement. On the other hand, a course like Math 1012 satisfies the requirement in one semester.

### **Requirements and Grades**

**1. Homework:** This will be assigned, and due, roughly every two weeks. No late homework will be accepted, but *your lowest two homework scores will be dropped*.

On days that homework is due, we will spend much of the period going over homework in class. *Feel free to discuss homework with your groupmates* (see requirement #2 below). Do as much of the homework at home *before* the due date, so you can concentrate, in class, on problems that gave you difficulty. (On homework due dates, you will usually be doing in-class worksheets as well, cf. requirement #2 below, so don't expect to have the whole class period to work on homework alone.)

Graded assignments will be returned in class. The homework will constitute **10%** of your course grade.

The first assignment is posted on the class website (see the beginning of this syllabus). Subsequent assignments will be also posted on this site.

*Note that many of the exercises are solved in the back of the book.* But please *do everything you can* to figure out the problem before referring to the solutions. On the other hand, it's a great idea to *check your work* in the back, once you're done.

- 2. In-Class Group Worksheets:** On numerous occasions (you can count on this at least once a week, maybe more), the last 20–25 minutes of the class period (sometimes more) will be set aside for you to work on problems related to the material. You will do this work in small groups consisting of yourself and three or so classmates. (The class roster, and therefore the groups, will fluctuate a bit during the first week or so; ultimately we hope to settle down into groups of four or so.) This in-class work will make up another **18%** of your grade, with the lowest three worksheet scores being dropped.

- 3. In-Class Exams:** There will be two during the semester, given on:

**Friday, February 18 and Wednesday, March 30**

respectively. Each exam will constitute **18%** of your final grade. **Calculators OK!**

You will only be excused from an exam (including the final; see #5 below) in case of a *documented* illness or other emergency.

- 4. The GROUP Term Project:** Here's your assignment: working TOGETHER with the other members of your group (which you will form in class over the first few weeks), be creative with math!! You have many options here, according to your talents, abilities, hobbies, and so on. If you like to write, you can write a short story or poem that involves math. If you're musical, you can write and/or perform a song with math lyrics. If you like to draw, you can do a picture that reflects geometrical ideas. If you like to build things, you can make a toy or machine whose workings involve mathematical principles. Etc.

The term project may be handed in *anytime* up to and including the last class. It will count towards **18%** of your final grade.

**If your project is a performance piece** (a song, a play, etc.), or if it's simply something you'd like to show the rest of the class, let me know in advance so we can try to schedule some class time for it near the end of the semester.

IMPORTANT NOTE: Each group member will be asked to grade the participation, on the term project, of the other members of the group. If you get really bad grades (or really good grades!!) from other members of your group, it may affect your term project grade. BE A GOOD GROUP CITIZEN! Don't force your group members to pick up your slack on the term project, or your term project grade may suffer for it!!

- 5. Final Exam:** It will constitute the remaining **18%** of your final grade. **Calculators OK!** The final will *not* be cumulative. Final exams are held in your regular classroom.

Section #	Instructor	Exam Time
Section 001	Strider McGregor-Dorsey	Tue., May 3, 1:30 p.m.– 4:00 p.m.
Section 002	Bryce Christenson	Sat., Apr 30, 7:30 p.m.– 10:00 p.m.
Section 003	Jason B. Hill	Mon., May 2, 4:30 p.m. – 7:00 p.m.

- 6. Class Participation:** In borderline cases, class participation (not counting the mandatory group worksheets – see #2 above) will be taken into account in determining final grades.

- 7. General Note:** A commonly asked question is “Will my grades be curved?” The answer is yes, in the sense that your performance will be measured in relation to that of other students in the course. On the other hand, there are no rigid quotas of A's, B's, C's, etc.

## Dates to Keep in Mind

Depending on your college at the university, the following dates may vary.

**Monday, January 17:** Martin Luther King, Jr. holiday. No classes. University closed.

**Wednesday, January 19:** Add deadline and waitlist deadline without instructor signature.

**Wednesday, January 26:** Deadline to drop a course without being assessed tuition. Deadline to withdraw without a "W" appearing on your transcript.

**Friday, January 28:** Add deadline with instructor signature.

**Wednesday, February 23:** Deadline to drop a course without petitioning the dean.

## General Information

**Students with Disabilities:** If you qualify for accommodations because of a disability, please submit to your instructor a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities, medical conditions and injuries. Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. For information, contact: 303-492-8671, Willard 322, and

[www.colorado.edu/disabilityservices](http://www.colorado.edu/disabilityservices)

**Religious Obligations:** Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, you should notify your instructor of any conflict at least two weeks in advance. See full details at

[http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)

**Honor Code:** All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at

<http://www.colorado.edu/policies/honor.html>

and at

<http://www.colorado.edu/academics/honorcode/>

**Statement on Discrimination and Harassment:** The University of Colorado at Boulder policy on Discrimination and Harassment, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships apply to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH, the above referenced policies and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at

<http://www.colorado.edu/odh>