

# Math 345 – Research in Mathematics

## Block 6 2006

### Course Procedures

**Professor:** Josh Laison, Tutt 201  
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**Course Web Page:** [http://faculty1.coloradocollege.edu/~jlaison/research\\_course.htm](http://faculty1.coloradocollege.edu/~jlaison/research_course.htm)

#### Grading:

Class presentations (4)	40%
Paper revisions (4)	40%
Class participation	10%
Meeting participation and preparation	10%
<b>Total</b>	<b>100%</b>

#### Class Schedule:

Monday 2/20: Problem descriptions, teams pick problems  
Tuesday 2/21: Introduction to L<sup>A</sup>T<sub>E</sub>X, MathSciNet, the interlibrary loan system  
Wednesday 2/22: Baca campus information session  
Thursday 2/23: First presentation day  
Friday 2/24: First draft of papers due  
Saturday 2/25: Third Annual Pikes Peak Regional Undergraduate Mathematics Conference at University of Colorado Pueblo (optional)  
Thursday 3/2: Second presentation day  
Friday 3/3: Second draft of papers due  
Thursday 3/9: Third presentation day  
Friday 3/10: Third draft of papers due  
Wednesday 3/15: Final presentation day, final draft of papers due

**Class presentations:** Each team will give four 15 minute presentations over the course of the block. They do not have to be completely different; your team will revise and add to a previous presentation for the next time. Typos should be fixed, confusing points should be clarified, and diagrams and presentation tools more polished. However, each presentation should include some significant extra component that was not in the previous version. The first presentation will probably be purely expository, but as the block progresses, more original work should be added each time.

**Paper revisions:** Your team's paper should include written versions of the things you say in your presentation, as well as detailed explanations and derivations glossed over in the presentation. Again, later versions will fix problems and expand confusing parts of earlier versions, and will also include extra material each time.

**Class participation:** You are expected to be an active audience member during other teams' presentations, and provide helpful and constructive comments. One team's success may rely on a helpful suggestion made by a member of another team, so please take this portion of class seriously.

**Team meetings:** Each team will meet with me at least 10 times during the block, for 1 1/2 to 2 hours at a time. I will be an active member of each team, and work with the members of the team in their research. You are not expected to prove your theorem(s) entirely independently. However, I expect to see evidence of hard work outside of our meetings, and you should bring new ideas, questions, and issues to each meeting.

I will keep a sign-up sheet on my office door, and each team will sign up for their meeting times at least a day in advance.

**Honor Code:** Since most of your grade will be the same for all members of your team, you should be an active member of your team and make a conscientious effort to contribute. Of course, it is impossible to quantify which members of a team produced which portion of your results, and I will not make an attempt to do so. As long as all members of a team are working hard, this should not be an issue.