Course Description
This course will focus on instruction in discrete mathematics, issues related to appropriate topics at middle school and high school grades, and its integration into a mathematics curriculum. The course will also address approaches to the teaching and learning of discrete mathematical topics from conceptual and problem-solving points of view, and will look at the state and national standards related to discrete mathematics.
This course is an elective course of our Master of Arts in Mathematics: Teaching Emphasis degree program. The program consists of 30 semester hours of graduate courses.

Course Objectives
1. Study appropriate content, as well as instructional and assessment techniques in the area of discrete mathematics for middle school and high school teachers.

2. Study discrete mathematical concepts, such as those contained in the NCTM and Colorado’s Content Standards in Mathematics, into the course.

3. Look at the role of computers and graphics calculators as tools for teaching and learning discrete mathematics.

4. Provide both content and pedagogical content so that participating teachers are able to not only learn new content but are able to use appropriate tools and instructional methods in their classrooms.

5. Provide opportunities to develop curriculum materials of discrete mathematics for your classes.

6. Become familiar with Colorado and national standards that relate to discrete mathematics.

Outline of Course Content
Topics addressed include:
1. The Value of Discrete Mathematics: Vies from the Classroom
2. The Value of Discrete Mathematics: Achieving Broader goals
3. What is discrete Mathematics: Two perspectives
4. Integrating Discrete Mathematics into existing Mathematics Curriculum, Grades 6-12
5. High School Courses on Discrete Mathematics
6. Discrete mathematics and computer Science
Course Requirements
We will hold one group Chat Room session per Unit. We will meet online every third or fourth
Sunday from 8:00 to 8:30, beginning on Sunday, September 13. We will use the first 15 minutes
or so for office-hour type questions, such as project questions and course information updates.
After that we will discuss the assigned reading or the assigned discrete problem(s) for that
particular Chat session.
At any time feel free to email me (bill.blubaugh@unco.edu) on any question, concern, or thought
you would like to share with me regarding course content or course organization.
Threaded Discussions will be used for entering your reactions and thoughts to assigned
readings, or for entering your work on assigned discrete mathematics problems. Feel free to
react to each other's Threaded entries.

Method of Evaluation
A letter grade will be assigned based on the following:
1. Discussion Board entries on assigned readings and problems (quality and quantity) - 40%
of course grade.
2. Chat Room entries on assigned readings and problems (quality and quantity) - 25% of
course grade.
3. One Individual or Group Project - 30% of course grade.
4. Online presentation (abstract) of Individual or Group Project - 5% of course grade.

Grade Assignment
A-: 90 - 92.4%  
A: 92.5 – 100%  
B-: 80 - 82.4%  
B: 82.5 – 87.4%  
B+: 87.5 – 89.9%  
C-: 70 – 72.4%  
C: 72.5 – 77.4%  
C+: 77.5 – 79.9%  
D-: 60 – 62.4%  
D: 62.5 – 67.4%  
D+: 67.5 – 69.9%  
F: 0 – 59%

Required Texts
American Mathematical Society and the National Council of Teachers of Mathematics.

Grades 6-12,* National Council of Teachers of Mathematics.

Students with Disabilities
Any student requesting disability accommodation for this class must inform the instructor giving
appropriate notice. Students are encouraged to contact Disability Support Services at (970) 351-
2289 to certify documentation of disability and to ensure appropriate accommodations are
implemented in a timely manner.
Honor Code
All members of the University of Northern Colorado community are entrusted with the responsibility to uphold and promote five fundamental values: Honesty, Trust, Respect, Fairness, and Responsibility. These core elements foster an atmosphere, inside and outside of the classroom, which serves as a foundation and guides the UNC community's academic, professional, and personal growth. Endorsement of these core elements by students, faculty, staff, administration, and trustees strengthens the integrity and value of our academic climate.

UNC's Policies
UNC's policies and recommendations for academic misconduct will be followed. For additional information, please see the Dean of Student’s website, Student Handbook link http://www.unco.edu/dos/handbook/index.html

Portable Electronic Devices
Please extend courtesy to your instructor and fellow students by turning off your portable electronic devises such as: cell phones, pagers, and iPods. Although not an audio issue, text-messaging is a distraction to other students and prevents you from full participation in class. You should keep your portable electronic devices in your backpack or purse during class. Your personal electronic devices should not be on your desks. If you know that you may need to accept an emergency phone call during class or if you have children in childcare or school, please let the instructor know. If you need to take a phone call during class, please step out of the classroom while you complete your call. Thank you for your cooperation.