**Class Times**  
Tuesday and Thursday 2:30-3:45 p.m.

**Classroom**  
RH 220

**Instructor**  
Dr. Mark Fitch

**Blackboard**  
All class materials can be found on Blackboard at  
[http://blackboard.uaa.alaska.edu/](http://blackboard.uaa.alaska.edu/). If Blackboard is not accessible the materials may also be found at [http://www.math.uaa.alaska.edu/~afmaf/classes/](http://www.math.uaa.alaska.edu/~afmaf/classes/).

**Office Hours**  
Monday, Wednesday-Friday 1:00-2:15 p.m. See [http://www.math.uaa.alaska.edu/~afmaf/classes](http://www.math.uaa.alaska.edu/~afmaf/classes) for additional available times.

**Email**  
mafitch@uaa.alaska.edu

**Phone**  
786-1656

**Office**  
SSB 154D

**Textbook**  
*Discrete Mathematics and Its Applications* 7th edition by Kenneth Rosen (required)

**Web access**  
You may find it useful to have a laptop or other device in class for accessing web pages and displaying pdf files.

**Topics**  
The course covers logic in its connections with mathematical proof, introductory set theory, Boolean algebra, and combinatorial circuits; techniques of counting; and elements of graph theory.

**Goals**  
By the end of the appropriate section you should
- be able to identify proper models for discrete phenomena,
- recognize and construct logical arguments and proofs,
- solve enumeration problems, and
- distinguish the properties of graph models.

**Daily Lesson**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>The lesson is the source of new material. By completing the assigned problems you will learn new topics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>Complete the assigned problems from the problem set found online on Blackboard or at <a href="http://www.math.uaa.alaska.edu/~afmaf/classes/math231/">http://www.math.uaa.alaska.edu/~afmaf/classes/math231/</a>. Note you may work with other students and ask questions of the instructor when working on the lesson.</td>
</tr>
<tr>
<td>Due</td>
<td>Assigned reading and problems must be completed before the class in which they are due.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Questions on the lesson will be addressed during class.</td>
</tr>
<tr>
<td>Grading</td>
<td>See Class Time below.</td>
</tr>
</tbody>
</table>

**Grading**  
See Class Time below.
Purpose
During class the instructor will guide a discussion of the material with students working in groups participating by presenting their work. Additional time will be used to practice skills. Class time will ensure that you have the opportunity to understand each topic.

Assignment
Be prepared to present a few times over the semester.

Feedback
The instructor and class will provide immediate feedback during discussion.

Grading
Your work and presentation will be graded for completeness and presentation. Additional points are possible for correctly discovering concepts and connections.

Practice
Purpose
Problems from the textbook provide the opportunity to practice skills. Be aware that most textbook problems emphasize mechanical skills rather than understanding. As such they are not representative of test questions.

Assignment
Complete the problems assigned on Blackboard. Questions on practice problems can be asked during office hours.

Due
Homework is due at the beginning of class on the due date.

Feedback
Selected problems will be graded based for accuracy and presentation. At the end of the semester an allowance will be made for missed homework.

Quizzes
Purpose
Quizzes test your grasp of the material and therefore provide you with feedback on your progress. They typically require recognition of patterns, not necessarily identical in appearance to homework problems. They may also point out nuances.

Assignment
At the beginning of some class periods a short (approximately 5 minute) quiz over recent material will be given.

Feedback
If incorrect, the first, major wrong step in a problem will be noted with a note about the correct step if possible.

Grading
Your work will be graded for accuracy and presentation. At the end of the semester an allowance will be made for missed quizzes.

Exams
Purpose
Exams provide you with an opportunity to demonstrate your mastery of mechanical skills and your understanding of the concepts. The latter are weighted more heavily in the grading.

Assignment
Exams will be given on the dates specified on Blackboard or at [http://www.math.uaa.alaska.edu/~afmaf/classes/math231/schedule.html](http://www.math.uaa.alaska.edu/~afmaf/classes/math231/schedule.html).

Feedback
If incorrect, the first, major wrong step in a problem will be noted with a note about the correct step if possible. Grading symbols, explained online, will be used to identify error types. Full solutions will be provided in a posted answer key.

Grading
Your work will be graded for accuracy and presentation.

Grading
Your grades will reflect your ability to perform the tasks outlined in the goals and to clearly explain how you accomplished the tasks. Because understanding is more important than producing results, steps in a solution are more important than the result. Specific criteria are provided above and with individual assignments as required.

Assessments
Quizzes and Homework 20%
Exams 20% x 3
Final Exam 20%

The final exam will be on December 11th from 1:00 p.m. - 3:45 p.m.

If you have a certified learning disability, please inform the instructor so that
the university sanctioned assistance can be provided.

Scale
A  90-100
B  80-89
C  70-79
D  60-69
F  0-59

Grades of C or higher indicate preparedness to progress to courses for which
this is a prerequisite. A grade of B or higher indicates an ability to explain
procedures. A grade of A indicates the ability to extrapolate from these skills
to solve related problems.

Academic Expectations

Lessons: If you do not understand any part of a lesson or an assignment, ask
for assistance before the assignment is due. You will need to provide a
specific description of the difficulty: instructors cannot read your mind.

Instructions: If you do not understand any instruction or a question, ask
before the work is due. An assignment may be submitted only once, except
for projects.

Corrections: If you discover a mistake in any graded work, please bring it to
the attention of the instructor as soon as possible.

Incomplete assignments: Lessons, homework, and quizzes not turned in on
time receive no credit.

Please arrange excused absences for exams before the exam if at all
possible. If you cannot make arrangements before the exam, then the final
exam grade will replace that exam score. If the university is closed for an
emergency on an exam day, the exam will be given the next class session.

Attendance

Regular attendance and active participation is expected in all classes. You
are responsible for class work even if there are legitimate reasons for your
absence. In particular, class attendance is vital to success in this course.
Some of the material covered in this course is not included in the textbook nor
is it online. If you miss class for university business or civic duty, please inform
your instructor as early as possible prior to your absence. More than four
unexcused absences may result in a “faculty initiated drop.”

Should the last date of your class attendance be required, it will be
determined by the last date of any material submitted by you for recording in
the class grade record. If you have evidence that your date of last attendance
is otherwise, you must inform your instructor of such prior to the assignment of
your final grade. The date of last attendance may impact financial aid.

Most graded assignments are returned at the beginning of class. If you miss
this, you will need to come to the instructor’s office to obtain the assignment.
All assignments not collected by the final exam will be destroyed as required
by FERPA.
<table>
<thead>
<tr>
<th>Academic Honesty</th>
<th>Use of any communication device during an assessment is prohibited. The instructor will note when accessing the internet is needed for class. Audio devices may not be worn during any assessment.</th>
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</thead>
<tbody>
<tr>
<td>Non-Academic Assistance</td>
<td>The mission of the UAA CARE Team is to promote a safe and productive learning, living and working environment by addressing the needs of students. If you, or someone you know, needs support, is distressed, or exhibits concerning behavior help by making a referral to the CARE Team. Contact the CARE Team by: filling out a referral on <a href="http://www.uaa.alaska.edu/CareTeam">http://www.uaa.alaska.edu/CareTeam</a>; E-mail your concern to <a href="mailto:Care@uaa.alaska.edu">Care@uaa.alaska.edu</a>; or call the Care Team phone number: 786-6065; if an emergency—call UPD or 911.</td>
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<tr>
<td>AcCourtesy</td>
<td>Courtesy in the classroom is important for learning. Remember students and instructors come from varied cultures and backgrounds: be mindful of others as you interact.</td>
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