

# MATH 245: DISCRETE MATHEMATICS

SUMMER SESSION, 2000

COURSE REFERENCE NUMBER: 57162

3.0 Units; Mon.-Thurs., 9:45-11:25am in Room F-261

**INSTRUCTOR: Ken Kuniyuki**

Email address: [kkuniyuk@yahoo.com](mailto:kkuniyuk@yahoo.com)

Office Hours: Mon.-Thurs. 9:10-9:30am and 11:35am-12pm (maybe longer) in the Mesa College Cafeteria. You are encouraged to discuss any and all concerns with me.

Voice Mail: (619) 252-4839

Students with disabilities who may need academic accommodations should discuss options with their professors as soon as possible. Visit the DSPS Office in Room H-202.

You are also encouraged to talk with your instructors before dropping a course.

If you expect to be involved in professional or college activities (such as sports) that may, for example, hinder your ability to attend class, submit homework, and/or take exams, let me know as soon as possible so that accommodations may be made.

## TEXTBOOK AND SUPPLEMENT

Discrete Mathematics and Its Applications (4<sup>th</sup> Edition) by Kenneth H. Rosen  
(McGraw-Hill, 1999)

(Optional: the Student Solutions Guide for the above)

## WEB SITE

There is a web site for this textbook at:

<http://www.mhhe.com/rosen>

The Bulletin Board and the Web Resources Guide in the Student Resources section are of particular interest. Although I may refer to links in the Web Resources Guide, internet access is not a requirement for this course.

## COURSE DESCRIPTION

Topics in this course may include logic, set theory, algorithms, number theory, methods of proof, counting (permutations, combinations, recurrence relations, inclusion-exclusion, etc.), probability, and equivalence and order relations. The tentative plan is to cover most of the first six chapters of the Rosen textbook.

## PREREQUISITES

A grade of "C" or better in Math 122 or 151; or a comparable grade in an equivalent course. Add codes will not work if prerequisites are not satisfied.

## ADDITIONAL HELP

- The Learning Resource Center (LRC) houses the Center for Independent Learning (858-627-2769) on the 4<sup>th</sup> Floor. Hours: Mon.-Thurs. 7am-9pm, Fri. 7am-5pm.
- Tutoring Center (Room K-211). Walk-in tutoring for Math and Science. Hours: Mon.-Thurs. 8am-6pm.

## CALENDAR

Class will meet for eight weeks from Monday, June 12 until Thursday, August 3, with the following exception:

Independence Day	Tues.	July 4	Week 4
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Therefore, we will meet for 31 days. The course final will be administered on Thursday, August 3, the last day of class.

## DEADLINES

Dropping without a "W"; add codes (*)	Tues.	June 20	Week 2
Refund eligibility for dropped classes	Fri.	June 23	Week 2
Credit / No Credit petition	Tues.	June 27	Week 3
Withdrawal deadline	Fri.	July 14	Week 5
Grades available on GradesLine	Tues.	Aug. 22	

(\*) Tuition and fees must be paid within five days of adding a course.

## GRADES

Cheating is, of course, forbidden. Possible penalties include assigned scores of "0" and a course grade of "F". Refer to Policy 3100 in the course catalog. Collaboration outside of class is encouraged, but copying is forbidden.

Excluding possible extra credit points, your course score will be out of 1000 points (1000 points = "100%"), divided as follows:

**QUIZZES: 500 points (which is 50% of 1000 points)**

-- 6 quizzes given, each worth 100 points

-- Only your best 5 quizzes will count towards your course score

Bring a calculator to all quizzes.

I will negotiate the dates of the 6 quizzes with the class throughout the session; this will allow me to better adapt the course to the needs of the students.

**TENTATIVE QUIZ PLAN**

The tentative quiz dates are very tentative!

Quiz #	Chapter #	Tentative Date
Quiz 1	Chapter 1 (Sec. 1.1-1.3)	Tues., June 20 (Week 2)
Quiz 2	Chapter 1 (Sec. 1.4-1.8)	Tues., June 27 (Week 3)
Quiz 3	Chapter 2	Thurs., July 6 (Week 4)
Quiz 4	Chapter 3	Thurs., July 13 (Week 5)
Quiz 5	Chapter 4	Thurs., July 20 (Week 6)
Quiz 6	Chapter 5	Thurs., July 27 (Week 7)

Do not expect to be able to make up quizzes. Even if the instructor allows a student to take a makeup quiz, there are no guarantees; for example, the quiz may be heavily penalized or not graded at all. In any event, a student should inform the instructor as soon as possible if s/he knows that s/he will miss a quiz date.

We will skim or skip some of the sections in the textbook; other material may be added at the instructor's discretion. It is important that you attend the lectures to have an idea of the type of material that you will be held responsible for on exams.

**HOMEWORK: 150 points (15%)**

-- 25 points for each of 6 submissions (this may change)

Although you are strongly encouraged to do problems as soon as they are assigned, homework will only be collected on the day of the corresponding quiz.

There may also be an extra credit homework assignment due the day of the final.

Answers to the odd-numbered problems are in the back of the textbook. More detailed solutions to these problems are in the Student Solutions Guide. It is your responsibility to use the Student Solutions Guide wisely.

On your homework, show work where appropriate. Points may be deducted from homework assignments that are turned in late, that are incomplete or illegible, or that have insufficient work.

**CLASS PARTICIPATION: 50 points (5%)**

Your score here will depend on such factors as class attendance, disruptive behavior, and participation in in-class activities and exercises.

**FINAL: 300 points (30%)**

The course final will be administered on Thursday, August 3, the last day of class, in our regular room. Bring a calculator!

The final will be comprehensive. In addition to the material you were held responsible for on the quizzes, the final may include material from Chapter 6 and beyond, depending on how far we get in the course.

**The following are guarantees:**

<u>Course score out of 1000</u>	<u>Grade guarantee</u>
At least 900 (90%)	A
At least 800 (80%)	B or better
At least 700 (70%)	C or better
At least 600 (60%)	D or better

The course may be taken on a Credit / No Credit basis, but check your program requirements, first. The petition deadline is Tuesday, June 27 (Week 3).

Extra credit may be assigned in any of the aforementioned grade components as deemed appropriate by the instructor.

It is important that you write your name on all submitted work.

**COME TO CLASS WITH:**

- The Rosen textbook
- A calculator - you will need one for the course
- Some paper and a pencil or pen: for notetaking and in-class exercises
- Homework whenever it's due

Children are forbidden in the classroom. Day care services (such as the Child Development Center in Building R) are available on-campus.

## **ATTENDANCE**

Students who have unexcused absences for the equivalent of two or more class meetings (i.e., at least three hours) may be dropped from the course. If your excused and unexcused absences total the equivalent of four or more class meetings (i.e., at least six hours), I may drop you from the course. I consider tardiness and premature departures as forms of absences, particularly if habitual. Your attendance and tardiness record may also affect your Class Participation grade.

Disruptive behavior will not be tolerated; disruptive students may be removed from the class and are especially likely to be dropped from the course.

## **NOTES / CLASS CONTACTS**