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Instructor: See the **Instructor** link on your course Blackboard site for information regarding email address, office location, and office hours.

Required Text & Supplement:

1. *Topics in Contemporary Mathematics*, USF Edition, by Bello, Britton, & Kaul
2. **Eduspace** student access code

The USF Tampa Campus Bookstore has the special USF edition that will be packaged with a Study Guide and a student access code for **Eduspace**, an Internet-based practice site. **Eduspace** will be part of the package if you buy a new book. If you buy a used book, you must purchase the **Eduspace** student access code booklet.

Course Design:

Lecture Class is a large group that meets twice a week for 1 hr. and 15 min. each time. **Small Group Sessions** meet twice a week for 50 min. each time.

Course Content: Chapters 1, 2, 3, 8, 10, 11, and 12 of the text will be covered. (Ch 13 is optional)

Chapter 1:	Problem Solving
Chapter 2:	Sets (Omit 2.5)
Chapter 3	Logic (Omit 3.7)
Chapter 8:	Geometry (Omit Sections 8.6 and 8.7.)
Chapter 10:	Counting Techniques
Chapter 11:	Probability
Chapter 12:	Statistics

Math Prerequisites: C (2.0) or better in MAT 1033, or SAT Math score of 440 or better, or ACT Math Score of 19 or better, or Elementary Algebra CPT score of 72 or better.

Computer Requirements: Must have internet access (preferably a high speed connection) Your computer must be at least a 500 MH processor with the necessary java plug-ins. You can use the Browser Wizard on the USF Academic Computing site (<https://my.usf.edu>) to verify if you have the necessary plug-ins. You may use AOL as your internet connection but sometimes it is not compatible with Blackboard and will cause problems. Internet Explorer, Netscape, or Mozilla all

seem to be compatible browsers and you can find information about downloading them at the “My USF” tab at <https://my.usf.edu>.

Technical Requirements:

Be able to work with the following hardware applications on a **PC**:

- Save files
- Locate files
- Load software programs
- Add plug ins
- Problem solve technology issues
- Contact and work with Technology help desk personnel

Be familiar with the following types of software:

- Web browser
- Blackboard
- Search engine
- E-mail
- Discussion boards
- CHAT

To forward your USF email to the email address that you normally check:

1. Go to the USF Web email log-in at <https://mailbox.acomp.usf.edu/> and enter your net ID username, password, and USF mail server (mail.usf.edu for example)
2. This should take you to the inbox of your assigned USF email account. Select the “Options” link at the top and then the “Email Forwarding” link. Enter your email forwarding address in the box and click the “change settings” link.

Calculator: A scientific calculator is required for this course. You should not need a graphing calculator, but you are allowed to use one. You are not allowed to use a cell phone as a calculator. Cell phones must be turned off and out of visual sight for all classes and tests.

Primary Learning Goals: Topics include finite and infinite sets, logic, deductive and inductive reasoning, geometry, counting methods, probability, and statistics. These topics will be helpful in developing a broader base of mathematical knowledge with a “hands-on” approach to solving real life applications.

Specific Course Objectives: In the respective topics below, the student will:

Sets & Problem Solving

1. learn to use inductive and deductive reasoning and deduce facts of set inclusion or set non-inclusion from a diagram.
2. use set operations, including union, intersection, complement, set difference, and Cartesian product.
3. be able to demonstrate knowledge of infinite sets and their characteristics as contrasted with finite sets.
4. solve problems using Venn diagrams and/or using the application of sets.

Logic

5. identify simple and compound statements, statements equivalent to the negations of simple and compound statements, and the converse, inverse and contrapositive of a conditional statement.
6. set up truth tables and determine equivalence or nonequivalence of statements.
7. solve problems dealing with the conditional statement and select applicable rules for transforming statements without affecting their meanings.
8. recognize that an argument may not be valid even though its conclusion is true and recognize valid reasoning patterns as illustrated by valid arguments in everyday life.
9. draw logical conclusions from data and draw logical conclusions when facts warrant them.

Geometry

10. calculate distances, areas, and volumes.
11. identify relationships between angle measures and identify appropriate units of measurement for geometric figures.
12. classify simple plane figures by recognizing their properties and recognize similar triangles and their properties.
13. infer formulas for measuring geometric figures and select applicable formulas for computing measures of geometric figures.
14. solve real-world problems involving the Pythagorean property and/or perimeters, areas, and volumes of geometric figures.

Counting Techniques

15. use counting methods to count by systematic listing.
16. use permutations, combinations, and the fundamental counting principal.

Probability

17. identify the probability of a specific outcome in an experiment and/or design a sample space for an experiment
18. solve problems using the addition and multiplication rules of probability and the complement formula of probability.
19. determine odds in favor of or against an event and the conditional probability.

Statistics

20. choose the most appropriate procedure for selecting an unbiased sample from a target population and infer relationships and make accurate predictions from studying statistical data.
21. identify information contained in bar, line, and circle graphs.
22. determine the mean, median, and mode of a set of numbers and recognize properties and interrelationships among the mean, median, and mode in a variety of distributions.
23. solve problems dealing with the range and standard deviation in a variety of distributions.
24. interpret real-world data involving frequency and cumulative frequency tables.
25. use the normal curve to solve problems.

Gordon Rule/General Education: This course fulfills 3 hours of the Gordon Rule Computation requirement and also 3 hours of the General Education Quantitative Methods requirement, provided a grade of C-minus or better is achieved.

CLAST: The topics in this course are representative of many of those on the Mathematics subtest of the CLAST (College Level Academic Skills Test).

Miscellaneous Policies:

- Cheating will not be tolerated. The University policy on Academic Dishonesty is explained at the following website <http://www.ugs.usf.edu/catalogs/0506/adadap.htm>
- Students who must miss a class period due to a major religious observance must notify the instructor of this absence in writing.
- Any student with a disability is encouraged to meet privately with the instructor during the first week of classes to discuss accommodations. The student must bring a current Memorandum of Accommodations from the Office of Student Disability Services (SVC 1133). This is a prerequisite for receiving accommodations. Exam accommodations through the Office of Student Disability Services require two weeks advance notice. All course handouts are available in alternate format if requested in the student's Memorandum of Accommodations. Exam accommodations through the Office of Student Disability Services (SDS) require two weeks advance notice. Note: If you need extra time on exams, you must make arrangements to take your exams with the SDS office. You cannot receive extra time if you choose to take your exams with the course instructor.
- Turn you cell phones off and keep them out of visual site during the lecture sessions
- You are encouraged to take notes and may tape the lectures, but neither your notes nor your tapes are to be sold.
- The last day to withdraw from this course and receive a tuition refund can be found online at the Registrar's Calendar link.
- The last day to withdraw from this course and receive a grade of "W" can be found online at the Registrar's Calendar link.
- S-U Policy: Gordon Rule courses may **not** be taken on an S-U basis.
- A grade of "I" indicates incomplete work and will only be assigned when most of the coursework has already been completed with a passing grade. See the website <http://www.ugs.usf.edu/catalogs/0506/gradetc.htm> for further information.

Getting Help:

- There is a **Student Solutions Manual** available as a companion to the text. It contains answers to all the odd-numbered problems. There is also a Study Guide that has detailed explanations and worked-out practice problems.
- There are guided practice exercises available with the internet resource, **Eduspace**.
- USF has a **website** for Finite Math with links to slide presentations, net cast videos, and practice tests at <http://mathcenter.usf.edu>

- The **Math Center**, located in **BEH 102**, will be open MTWR from 9 am to 8pm and F from 9am to 4pm. It provides the use of computers for all the Internet-based practice sites for this course.
- There is a **Math Tutor Lab** in **PHY 107**. The hours of operation will be posted. The purpose of the lab is to answer generic questions on the course material. You may also ask questions about odd-numbered exercises.
- Arrange to meet your instructor.
- For on-line live tutoring go to <http://www.smarthinking.com> .
Username: *Hou1540965752497*
Password: *Hou15401366429182*
- Academic Computing located on the 6th floor of the Tampa Campus library will be available for student technical support: (974-1222) in Tampa or toll-free (1-866-974-1222 statewide), electronic mail (help-ac@usf.edu), walk-ins (LIB 608) and on-site services. To access online guides go to <http://www.acomp.usf.edu/help.html>, select the “Interactive Video Guides” link, and then choose your preferred guide.

Grading Policy:

To maximize your learning you should spend at least **9 hours per week** reading, practicing, studying, and discussing this course. Your grade will be a composite of the work completed in the lecture class and the small group sessions. Details will be on your instructor’s syllabus.

Final Exam

The **Final Exam** will be a cumulative departmental exam and *all* questions will be multiple choice. The date and time for this exam can be found online at <http://www.registrar.usf.edu/ssearch/search.php> (Note below about time conflicts). Your instructor will notify you of its location during the last week of classes. The common final exam counts as 25% of your grade. The remaining 75% of your grade will be specified by your instructor.

Time Conflicts with the scheduled Final Exam time:

- Students who normally work during the scheduled time of the final exam are expected to make arrangements with their employer to get time off.
- Students who have another final exam scheduled during this same time period will be permitted to take a makeup. You must submit proof that a conflict exists.
- Students who miss the exam for other reasons (serious illness, death in family, etc) will be considered on a case-by-case basis. In all cases verification of the student’s excuse will be required; make-ups will be permitted only for circumstances deemed beyond the student’s control. Students should contact their instructor *immediately* upon realizing they will miss the exam.

Final Grades: The University’s +/- grading policy will be used in assigning final grades. If your overall percentage of total points falls into the following range, you will receive the corresponding grade:

97-100(A+)	93-96(A)	90-92(A-)
87-89(B+)	83-86(B)	80-82(B-)
77-79(C+)	73-76(C)	70-72(C-)
67-69(D+)	63-66(D)	60-62(D-)
	0-59(F)	

List of Recommended Homework from the Text book

Ch 1

1.1: 11, 13, 17, 19, 29, 31, 39

Ch 2

2.1: 1, 3, 5, 7, 9, 11, 13, 25, 26, 27, 31, 33, 35, 37, 39, 41, 43, 47, 49, 51, 53, 59, 61, 67, 69, 70

2.2: 1, 2, 3, 7, 15, 17, 19, 23, 25, 29, 31, 33, 35, 37, 39, 43, 45, 51, 55, 57, 83, 87, 89, 91, 93

2.3: 3, 5, 9, 11, 15, 17, 19, 23, 25, 27, 29, 33, 35, 36, 37, 41, 42, 43, 45, 47, 61, 63, 65

2.4: 1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 23, 25, 27, 29, 31, 32, 33, 34

Chapter 2 Practice Test Try doing Problems 1-20. (The answers are on pp. 103-104.)

Ch 3

3.1: 1 thru 19 odd, 27 thru 55 odd

3.2: 1, 3, 7, 13, 15, 17, 21, 23, 27, 29, 31, 35, 37, 39, 41, 43, 45, 51

3.3: 3, 5, 7, 9, 11, 13, 17, 21, 23, 25, 29, 31, 35, 37, 49, 51, 53, 55, 61, 67

3.4: 1, 3, 7, 9, 11, 13, 15, 27, 29, 31, 35, 37, 39, 43, 45, 47, 49, 51

3.5: 1, 9, 11, 13, 17, 19, 21, 25, 27, 29, 31, 33, 57, 58, 59

3.6: 1, 3, 7, 11, 17, 21, 23, 25, 37, 39, 41, 43

Chapter 3 Practice Test: Try doing Problems 1 thru 24.

Ch 8

8.1: 27 thru 61 odd

8.2: 25, 27, 29, 31, 33, 35, 39, 47, 49, 51, 53

8.3: 1 thru 31 odd, 39

8.4: 1 thru 33 odd, 39, 41, 47

8.5: 9, 11, 21 (skip part b), 25, 27, 31, 33, 35, 37, 47, 48, 49

Chapter 8 Practice Test: 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20

Ch 10

10.1: 1, 5, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 42, 43, 45

10.2: 1, 5, 9, 11, 13, 15, 21, 23, 25, 27, 29, 33, 35, 37, 39, 41, 43

10.3: 3, 7, 15, 21, 23, 27, 33, 37

10.4: 1, 7, 9, 11, 13, 15, 17, 19, 21, 25

Chapter 10 Practice Test: Try Problems 1 thru 25 EXCEPT 3, 14, 20, 24, and 25

Ch 11

11.1: 1 thru 19 odd, 25, 27, 29, 31, 33, 35

11.2: 1, 3, 5, 11, 13, 15, 17, 23, 25, 27, 28, 31

11.3: 5 thru 19 odd, 21, 24, 25, 27, 29, 31, 40, 41, 42

11.4: 1, 3, 5, 9, 11, 13, 15, 17, 19, 23

11.2: Use tree diagrams to solve 19, 21, 33, 34, 35

11.5: 3, 5, 7, 11, 19, 23, 25

11.6: 1, 3, 5, 7, 9, 11, 15, 17, 19, 23, 27, 29, 33, 34, 25, 37

Chapter 11 Practice Test: Try Problems 1 thru 20.

Ch 12

12.1: 3, 5, 11, 13, 17, 25, 27, 29 (skip frequency polygons)

12.2: 1, 3, 5, 11, 13, 15, 17, 25, 31, 35

12.3: 1, 9, 11 (skip e and f), 15, 17, 27

12.4: 1, 3, 5, 7, 9, 13, 15, 17, 19, 21, 23, 25, 29, 31, 33, 41, 43

12.5: 1, 3, 7, 11, 17, 21, 25, 33, 39

12.6: 3, 5, 7, 19, 21, 27

12.7: 1, 3, 5, 7, 11, 15, 17

Chapter 12 Practice Test: 1, 2, 3a, 4 thru 16, 17, 19, 20, 21, 22