

Fayetteville State University
College of Art and Sciences
Department of Mathematics and Computer Science
Fall Semester – 2010

I. Locator Information:

Instructor: Dr. Asitha Kodippili

Course # and Name: **MATH 340 – Topics in Mathematics**

Office Location: SBE 335 C

Semester Credit Hours: 4

Office hours: See the locator card in Course Information folder in Black Board

Day and Time Class Meets: TR 3:45 – 5:00

Office Phone: 910-672-1518

Total Contact Hours for Class: 40

Email address: akodippili@uncfsu.edu

MATHXL Course ID: **XL0J-F1Z6-201Y-4C32**

FSU Policy on Electronic Mail: Fayetteville State University provides to each student, free of charge, an electronic mail account (username@uncfsu.edu) that is easily accessible via the Internet. The university has established FSU email as the primary mode of correspondence between university officials and enrolled students. Inquiries and requests from students pertaining to academic records, grades, bills, financial aid, and other matters of a confidential nature must be submitted via FSU email. Inquiries or requests from personal email accounts are not assured a response. The university maintains open-use computer laboratories throughout the campus that can be used to access electronic mail. Rules and regulations governing the use of FSU email may be found at <http://www.uncfsu.edu/PDFs/EmailPolicyFinal.pdf>

II. Course Description: This course covers some parts of the SOA/CAS Exam 2 on Financial Mathematics. Topics covered: Annuities, Bonds and Life Insurance. *Prerequisite: MATH 142*

III. Disabled Student Services: In accordance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ACA) of 1990, if you have a disability or think you have a disability to please contact the Center for Personal Development in the Spaulding Building, Room 155 (1st Floor); 910-672-1203.

IV. Textbook: *Mathematics of Finance with Canadian Applications*, Sixth Edition,
By S. A. Hummelbrunner and K. Suzanne Coombs; Pearson Education Canada
ISBN: 0-13-505901-1

V. Student Learning Outcomes –

Upon completion of this course, students will be able to:

- Compute maturity values of investments
- Compute present value of future sums of money
- Solve problems involving equivalent values
- Compute effective and equivalent rates of interest
- Compute accumulated value for various kind of annuities
- Compute present value for various kind of annuities
- Perform computations associated with the amortization of debts involving general annuities, and construct complete or partial amortization schedules
- Determine the purchase price of bonds
- Calculate the premium or discount on the purchase of a bond

VI. Course Requirements and Evaluation Criteria -

a. Grading Scale –

A	90-100%	B	80-90%
C	70-80%	D	60-70%
F	below 60%		

b. Attendance Requirements – Attendance is compulsory. Students whose class absences exceed 10% of the contact hours will receive a warning grade of EA=Excessive Absences. For more information, see the attached page “Revision of Grades – Student Responsibilities”.

c. Graded Assignments – and Value of each assignment

Chapter Tests (4)	40% (lowest test grade will be dropped)
Homework (Using MATHXL)	25%
Class attendance and participation	10%
Case Studies (4)	20%

d. Policy on Missed or Late Assignments - No make up tests for chapter tests.

Please note: If these evaluation criteria must be revised because of extraordinary circumstances, the instructor will distribute a written amendment to the syllabus.

Student Behavior Expectations: -The instructor will respect all students and will make every effort to maintain a classroom climate that promotes learning for all students. Students must accept their responsibility for maintaining a positive classroom environment by abiding by the following rules:

1. Students are expected to arrive to class on time, remain in class until dismissed by the instructor, and refrain from preparing to leave class until it is dismissed.
2. Student/teacher relationships, as well as relationships among peers, must be respectful at all times.
3. Students are not permitted to wear headphones or other devices that may distract to the classroom environment.
4. Students must refrain from any activity that will disrupt the class; this includes turning off cell phones and pagers.
5. Students are not permitted to use profanity in the classroom.
6. Students will not pass notes or carry on private conversations while class is being conducted.

Consequences for Failing to Meet Behavioral Expectations: The first time a student violates one of these rules, the instructor will warn him or her privately, either after class or before the next class. (Faculty members reserve the right to warn students publicly if needed.) The second time a student violates the guidelines; the instructor may deduct as many as twenty points from the student’s next exam grade. If a student violates the guidelines three times, the instructor will report the student to the Dean of Students for disciplinary action according to the FSU Code of Student Conduct.

VII. Academic Support Resources – Instructor’s office hours

Extension Grade Contract: An Extension Grade may be assigned in lieu of a final grade of D or F for undergraduate students taking the course MATH 121. The Extension Grade will be designated as "Extension Grade D" or as "Extension Grade F" and is not calculated into the student's Grade Point Average. Any student requesting an Extension Grade must sign an Extension Grade Contract with the instructor not later than the end of the fifth week of the semester, or not later than the end of the first week of each summer term. To be eligible for the Extension Grade, a student must complete all requirements for the course and all requirements of academic support services. When a student receives an Extension Grade, the student must re-enroll for the course in the next semester that the student matriculates at the university. If the student does not re-enroll in the course, the Extension Grade will revert to the original grade of D or F, and will be calculated into the student's Grade Point Average.

VIII. Course Outline and Assignment Schedule –

Section	Description	Assignment Due
Chapter 9	Compound Interest- Future Value and Present Value	
Chapter 10	Compound Interest Further Topics	
	TEST 1	Case1 & Homework for chapter 9, 10 due
Chapter 11	Ordinary Simple Annuities	
Chapter 12	Ordinary General Annuities	
	TEST 2	Case2 & Homework for chapter 11, 12 due
Chapter 13	Annuities Due, Differed Annuities, and Perpetuities	
	TEST 3	Case3 & Homework for chapter 13 due
Chapter 14	Amortization of Loans	
Chapter 15	Bond Valuation and Sinking Funds	
Chapter 16	Investment Decision Applications	
	TEST 4	Case3 & Homework for chapter 14,15 and 16 due

- **Homework & Tests:** *will be assigned on-line via MATHXL, please check the assignments and due dates in your account on MATHXL at <http://www.mathxl.com>*

IX. Teaching Strategies: This course will involve lectures, student discussions, cooperative learning groups, computer experiences. However, the teaching strategy for the course will vary depending upon the learning styles and strengths of the students enrolled.

X. Bibliography :

- *Mathematics of Interest Rates and Insurance, social security and pensions* –by Robert Muksian - Prentice Hall Publication – ISBN 0-13-009425-0
- *Theory of Interest, 2/E* by Stephen G Kellison
- *Mathematical Interest Theory*, by James W Daniel – Prentice Hall – ISBN 0-13147285-2

Important Sources:

1. Information about academic regulations can be found at <http://catalog.uncfsu.edu/ug/academicregulations/index.htm>
2. Information on other important dates and holidays is available on *Academic Calendar* via: <http://catalog.uncfsu.edu/calendar.htm>

REVISION OF GRADES – STUDENT RESPONSIBILITIES

The following revisions become effective on August 16, 2007.

WN GRADE DISCONTINUED:

- WN - Withdrawal due to non-attendance - discontinued, effective August 16, 2007.

STUDENTS: Do not expect faculty to withdraw you for non-attendance. Drop or withdraw* from classes according to the deadlines published in the catalog. *See warning below about class withdrawals.

NEW TYPE OF GRADE: INTERIM GRADES – (New name for “midterm grade,” with additional purposes). Interim grades will be assigned from the first week of the semester until the deadline for class withdrawals. Interim grades are used for informational and warning purposes only; they are not part of your permanent transcript and have no effect on your GPA. Instructors may assign interim grade of F to warn students of poor academic performance or they may assign “X” or “EA” grades. (See below for explanations) After midterm, faculty will assign all students an interim grade of A – F to inform students of their academic status as of midterm.

- INTERIM GRADE X = NO SHOW – Assigned to students who are on a class roster, but never attend class. For warning purposes only; NOT a final grade.

STUDENTS: Check interim grades early in the semester. If you have an X grade, either begin attending the class or withdraw* from it. *See warning below about class withdrawals. If you do not take action in response to an X grade, you will receive a final grade of FN. (See “FN” below)

- INTERIM GRADE EA = EXCESSIVE ABSENCES - Assigned to students whose class absences exceed 10% of the total contact hours. For warning purposes only, NOT a final grade.

STUDENTS: Check your interim grades often. If you have an “EA” grade for a class, you are in jeopardy of failure if you do not take immediate actions. Either resume attending the class or withdraw from it. *See warning below about class withdrawals.

NEW FINAL GRADE:

- FN = FAILURE DUE TO NON-ATTENDANCE – Assigned to students who are on class roster, but never attend the class. An FN grades is equivalent to an F grade in the calculation of the GPA.

STUDENTS: You must attend (or withdraw* from) all the classes for which you are enrolled. *See warning below about class withdrawals.

WARNING ABOUT CLASS WITHDRAWALS:

- When you withdraw from a class, you are wasting your money and time. You receive no refund for withdrawing from individual classes and you slow your progress toward degree completion.
- If you withdraw from or fail more than one-third of your classes, you will no longer be eligible for financial aid.
- **STRIVE TO EARN CREDIT FOR ALL THE CLASSES IN WHICH YOU ENROLL; WITHDRAW FROM CLASSES ONLY WHEN IT IS ABSOLUTELY NECESSARY!**