COURSE OBJECTIVES:

This course is an introduction to business computer programming and design in a corporate environment. The primary focus is on the information systems function in support of corporate activities. Students will learn business problem solving using JAVA PROGRAMMING in both a microcomputer environment and on an IBM System Z Mainframe.

JAVA TOPICS COVERED

JAVA program types, creating an application, syntax, variables, literals and identifiers, methods, expressions, print, println, primitive data types, arithmetic operators, final, string class, dialog boxes, joptionpane, scope, scanner class methods, decision structures, if-else, relational operators, nested ifs, logical operators, precedence, switch and the case structure, printf method, selection, exception handling, try/catch, repetition, formatting, loops, while loop, nested loop, methods, passing arguments, local variables, classes, instance fields, constructors, overloading methods and constructors, scope of instance fields, packages, import statements, iteration, instance, string arrays, arrays of objects, arrays, loops, external classes, table/arrays, arraylist class
Grading System

EXAM ONE 200 points in class exam
EXAM TWO 200 points in class exam
EXAM THREE 200 points in class exam

HOMEWORK 100 points

TOTAL 700 points

630 TO 700 POINTS = A
560 TO 629 POINTS = B
490 TO 559 POINTS = C
420 TO 489 POINTS = D
0 TO 419 POINTS = F

Oct 1 EXAM ONE ON GADDIS CH1, CH 2 AND CH 3
Nov 5 EXAM TWO ON  GADDIS CH 4 AND CH 5
Dec 3 EXAM THREE ON  GADDIS CH 6 AND CH 7

If for any reason, you leave the classroom, I will grade only what you have done to that point. You cannot come back and finish the exam.

Again, please take care of personal business before an exam starts

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For the rest of the class, if you miss an exam, I will give you a grade of 75% of the lower grade you make on the other 2 exams.

If you make a 180 and a 160 on the 2 exams you do take, I will give you 75% of the lower grade of 160 for a grade of 120 points.

BE SMART AND SHOW UP FOR ALL 3 EXAMS OR YOU WILL BE PENALIZED
During lecture:

1. all laptops,
2. all cellphones,
3. all IPads,
4. all PDAs,

must be turned off and put away. They cannot be on the desktop, and absolutely no texting is allowed during class.

Bring paper and pencil to take notes on.

We will break every 50 minutes, so that you can catch up on your texting and phone calls,

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During Exams:
I will probably assign seats for the exams.
During the exams you can have:

NO CALCULATORS,

NO PHONES,

NO 'APPLE-TYPE' WATCHS, ETC.

NOTHING in your ears [your ears must be visible]

YOU WILL HOVER OVER YOUR EXAM AND KEEP IT COVERED SO THAT NO ONE CAN SEE ANY OF YOUR ANSWERS. ALSO NO LOOKING AROUND.

THE NEXT TIME I CATCH SOMEONE SHOWING SOMEONE AN ANSWER, I WILL FLUNK BOTH OF THEM.

This is for your own good, as I curve the high grade on each exam to 200 and someone cheating could reduce the number of points YOU get from the curve. If you see someone cheating, turn them in and help the entire class!!!

Do not miss class any of the first 3 weeks or you will be 'HOPELESSLY LOST'.

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Hints for PC installation of JAVA

[if you have a MAC, install as you normally install software]

Be CERTAIN to install JAVA in:

C:\Program Files\Java

Do not install it anywhere else !!!

If you mess up - uninstall it - and reinstall it.

CLICK BELOW TO DOWNLOAD AND INSTALL JAVA


REMEMBER - BE CERTAIN THAT YOU download and install Java ONLY in:

C:\Program Files\Java

*You may use ANY jdk1.8.0_01 ... 199 etc. INSTEAD OF jdk1.8.0_211

NEXT set the “Path”

Open Control Panel on your Windows Computer - [Start-->Control Panel]

Click the “System"

Click the "advanced system settings"

Click the “Environment Variables” button near the bottom of the box
In the “System variables” window, look for a variable named “Path”

Path tells software programs such as JGrasp where to find the “JAVA” executable file. Path variables are separated by a ‘ ; ’.

Click on the “Path” variable under “System variables” and click Edit

Scroll to the bottom of the window and type the following:

" ;C:\Program Files\Java\jdk1.8.0_211\bin;   

Please be very careful that you add the text to the End of the existing information that you see, and be sure that you type the " ; " along with the rest of the information stated above.

Click OK

Next - set the CLASSPATH.

IF the “CLASSPATH” variable ALREADY EXISTS do the following:

Click on the “CLASSPATH” [as you did with Path] and click Edit

Scroll to the bottom of the window and type the following:

" ;C:\Program Files\Java\jdk1.8.0_211\lib;   

Please be very careful that you add the text to the end of the existing information that you see, and be sure that you type the " ; " along with the rest of the information stated above.

Click OK

IF the “CLASSPATH” variable DOES NOT EXIST do the following:

Click the New button below the “System variables” dialog box

Type “CLASSPATH” in the Variable name field

Type the following in the Variable value field:

" C:\Program Files\Java\jdk1.8.0_211\lib;   

Click OK, OK, OK

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CLICK THE LINK BELOW TO DOWNLOAD AND INSTALL THE JGRASP IDE program WHICH WE WILL USE TO RUN ALL OF OUR JAVA PROGRAMS:

http://www.jgrasp.org/

**JGRASP software basics**

1. Open the .java file you want to compile, so you can run it or debug it for logic errors.

2. Click the ‘Toggle line numbers’ ICON to turn on line numbering.

3. Click the ‘Compile file’ ICON to check for syntax errors. [fix any errors you find]

4. When you have NO syntax errors, click the ‘Run application for current file’ ICON.

5. If you still have a LOGIC error, set a breakpoint on the line where you want to start debugging and then click the ‘Run debugger on current file’ ICON.
BCIS 3630   Dr. GUYNES
FALL 2019 TUESDAY SECTION
SCHEDULE:

AUG 27 THIS IS A CRITICAL FULL 3 HOUR LECTURE -  
DO NOT MISS THIS CLASS OR YOU WILL BE VERY LOST

1. Installing TN3270 for mainframe Sys Z
2. Installing FTP for mainframe Sys Z
3. Gaddis JAVA textbook
4. Downloading and installing JAVA JDK
5. Setting PATH and CLASSPATH variables for JAVA
6. INSTALLING JGRASP FOR DEBUGING JAVA
7. MAINFRAME PROBLEM ONE & TWO - Logging in and editing on Sys Z

SEPT 3 Lecture over Gaddis chapter 2
MAINFRAME PROBLEM THREE - Running JAVA programs on the Sys Z

10 Lecture over Gaddis chapter 3
MF Problem One due
Not accepted after THUR 9-12

17 Lecture over Gaddis chapter 4
MF Problem Two and
JAVA PROBLEM ONE DUE
Not accepted after THUR 9-19

24 Web Session A
HINTS FOR GADDIS CH 1, 2, 3 EXAM
Finish java problem two

Oct 1 EXAM ONE ON GADDIS CH1, CH 2 AND CH 3
40 multiple choice worth 5 points each = 200 points
5 from chapter 1, 17 from chapter 2 and 18 from chapter 3
Lecture over Gaddis chapter 5

15  Web Session  B
HINTS FOR GADDIS CH 4 EXAM
Finish java problem three
JAVA PROBLEM THREE DUE
Not accepted after THUR 10-17

Lecture over Gaddis chapter 6

29  Web Session  C
HINTS FOR GADDIS CH 5 EXAM
Finish java problem four
JAVA PROBLEM FOUR DUE
Not accepted after THUR 10-31

EXAM TWO ON  GADDIS CH 4 AND CH 5
40 multiple choice worth 5 points each = 200 points
19 from chapter  4, and 21 from chapter 5

12  Web Session  D
HINTS FOR GADDIS CH 6 EXAM
Finish java problem five
JAVA PROBLEM  FIVE DUE
Not accepted after THUR 11-14
19   Lecture over Gaddis chapter 7

26   Web Session E
HINTS FOR GADDIS CH 7 EXAM
Finish java problem six

JAVA PROBLEM SIX DUE
Not accepted after THUR 11-28

Dec 3   EXAM THREE ON GADDIS CH 6 AND CH 7
40 multiple choice worth 5 points each = 200 points
23 from chapter 6, and 17 from chapter 7

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HOMEWORK ASSIGNMENTS

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Book</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>MF PROBONE</td>
<td>SYS Z</td>
<td>10</td>
</tr>
<tr>
<td>MF PROBTWO</td>
<td>SYS Z</td>
<td>10</td>
</tr>
<tr>
<td>MF PROBTHREE</td>
<td>SYS Z</td>
<td>10</td>
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<tr>
<td>JAVA PROBONE</td>
<td>Gaddis ch 2</td>
<td>05</td>
</tr>
<tr>
<td>JAVA PROBTWO</td>
<td>Gaddis ch 3</td>
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<td>Gaddis ch 6</td>
<td>15</td>
</tr>
<tr>
<td>JAVA PROBSIX</td>
<td>Gaddis ch 7</td>
<td>15</td>
</tr>
</tbody>
</table>

TOTAL 100

MAINFRAME PROBLEMS ONE, TWO AND THREE GRADED ON THE SYSTEM Z.
EMAIL GUYNES WHEN READY TO BE GRADED ON THE Z.

ALL JAVA PROBLEMS TO BE EMAILED TO THE 3630 STUDENT GRADER ON OR BEFORE
THE DUE DATE. SAVE A COPY OF ALL EMAILS SENT TO GUYNES OR TO THE GRADER.

THERE IS NO SUCH THING AS LATE WORK IN 3630. GET ALL WORK IN ON TIME OR
YOU GET A ZERO ON THAT ASSIGNMENT. DO NOT EVER ASK THE GRADER FOR
MORE TIME !!!!!!!!!!!!!!!!
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- **EXAM THREE** 200 points in class exam
- **HOMEWORK** 100 points

**TOTAL** 700 points

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BE SMART AND SHOW UP FOR ALL 3 EXAMS OR YOU WILL BE PENALIZED
JAVA ONE - 5 points From Gaddis chapter 2:

Work thru the examples in the chapter and then:

Do programming challenges 5, 7, 10 and 15

A. In order to get credit for the SALES TAX problem [#7] at the end of Gaddis chapter 2, you must use JOptionPane to input the amount of a purchase.

B. In order to get credit for the TEST AVERAGE problem [#10] at the end of Gaddis chapter 2, you must use Scanner to input the grades.

JAVA TWO - 10 points From Gaddis chapter 3:

Work thru the examples in the chapter and then:

Do programming challenges 8, 13, 16, 16

[Use char and switch in 13, use IF in 15, solve 8 & 16 however you wish]
JAVA THREE - 10 points From Gaddis chapter 4:

Do programming challenges 1, 2, 7 and 16

Use ‘while’ in one of them and ‘for’ in another, use either in the others

JAVA FOUR - 15 points From Gaddis chapter 5

Do programming challenges 2, 3, 7, 9

Hints for chapter 5 problem 2

Problem 2 - FIRST write the entire program without using methods by inputting wholesale cost and markup percentage and then computing the retail price. Then print the retail price. NOW RUN IT

SECOND modify the above ‘perfect’ program by moving the computation of retail price to a method named ‘calculateRetail’. This method gets sent the cost and markup from the main method and returns the retail price to the main method. Print the retail price from the main method. THE METHOD YOU WRITE ONLY COMPUTES THE RETAIL PRICE

USE TEXT EXAMPLES FOR HINTS
Hints for chapter 5 problem 3

Problem 3 - FIRST open the AreaRectangle.java program from the chapter code folder that you downloaded.

SECOND assuming that you use Scanner [and not JOptionPane] all you have to do is import Scanner and then add the 4 methods to the AreaRectangle.java program

One method asks for the length – use Scanner

One method asks for the width – use Scanner

One method asks for the area [length times width] simple calculation

One method asks you to print length, width and area [hint: Use System.out.println]

SOLVE 7 AND 9 AS YOU WISH

JAVA FIVE - 15 points From Gaddis chapter 6:

Do programming challenges 3 and 5

For challenge 5, study ‘constructors’ in chapter 6

Do programming challenges 1 and 4

For these 2 challenges study entering the data in ch 6.
JAVA SIX - 15 points From Gaddis chapter 7:

Read the textbook chapter 7 and then do the following.

Write the 2 following array programs.

**These are not challenges in the textbook**

The FIRST **array programming assignment** is from pp. 403-433

This is a simple array program which **does not use** an “external class & demo program"
If you wish, you may break it down into methods, but that is not required.

a. Set up 4 arrays which each hold 6 employee’s data:
   - int[ ] empid
   - int[ ] hours
   - double[ ] rate
   - double[ ] wages

b. Set up loops to load the empid, hours and rate arrays

c. - Set up a loop to calculate values for the wages array.
   - **TAKE OVERTIME [hours > 40], INTO CONSIDERATION,**
   - thru the use of the IF statement
   - [overtime is time and a half as usual]

d. Set up a loop to print the empid and wages for each employee
The SECOND array programming assignment is from 472-481

Write an ArrayList program that:

1. Creates a list of 5 automobile names that you make up and then retrieves those 5 names and displays all of them.

2. Adds Mercedes at position 3 of the array and then retrieves the names and displays all of them.

3. Replaces the fourth car with a BMW and then retrieves the names and displays all of them.

4. Removes the second car and then retrieves the names and displays all of them.

That all there is to it.
OFFICIAL UNT REQUIRED SYLLABUS STATEMENTS

**Academic Integrity Standards and Consequences.** According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

**ADA Accommodation Statement.** UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that **students must obtain a new letter of accommodation for every semester** and must meet with each faculty member prior to implementation in each class.

**Emergency Evacuation Procedures for Business Leadership Building:**

- **Severe Weather** In the event of severe weather, all building occupants should immediately seek shelter in the designated shelter-in-place area in the building. If unable to safely move to the designated shelter-in-place area, seek shelter in a windowless interior room or hallway on the lowest floor of the building. All building occupants should take shelter in rooms 055, 077, 090, and the restrooms on the basement level. In rooms 170, 155, and the restrooms on the first floor.

- **Bomb Threat/Fire** In the event of a bomb threat or fire in the building, all building occupants should immediately evacuate the building using the nearest exit. Once outside, proceed to the designated assembly area. If unable to safely move to the designated assembly area, contact one or more members of your department or unit to let them know you are safe and inform them of your whereabouts. Persons with mobility impairments who are unable to safely exit the building should move to a designated area of refuge and await assistance from emergency responders. All building occupants should immediately evacuate the building and proceed to the south side of Crumley Hall in the grassy area, west of parking lot 24.

**Acceptable Student Behavior.** Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. **Students engaging in unacceptable behavior will be directed to leave the classroom** and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc.