**3620 CLASS RULES & Getting Started**

During the lecture, all laptops, all cellphones, all IPads, all PDAs, etc. should be turned off and put away – **unless I tell you to bring a laptop to class for a special lecture. I do not want you distracted or distracting others while I am talking.**

Absolutely no texting is allowed during class.

Bring paper and pencil to take notes on.

We will break every 60 to 90 minutes so that you can catch up on your texting and phone calls, but then come back to class and turn everything back off.

**Read through all instructions and follow them carefully.**

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1. Download from Canvas:

A SYLLABUS,

B PROBLEM ONE,

C TN3270 SOFTWARE,

D WinSCP Install Notes

NEXT, GET STARTED WITH 'IBM SYSTEM Z' LOG IN

Work thru PROBLEM ONE, following each 'step' **VERY CAREFULLY**.

1. These steps show you how to install TN3270 (our mainframe access).
2. How to log in with your ID & PW
3. How to install and use FTP3270 (file transfer from PC to MF)
4. How to run a job on the SYS Z mainframe
5. How to edit files on the SYS Z mainframe

**ADMINISTRATIVE INFORMATION**:

Course Number: BCIS 3620

Course Title: Business Computer Information Systems – Mainframe Concepts

Semester: Fall 2024

Classroom: BLB 015

All PROBLEMS and DATASETS for the problems, ETC. are on CANVAS

**BCIS 3620 SOFTWARE ONLY RUNS UNDER WINDOWS**

**If you have a MAC, install Windows on it (either DualBoot or Parellels), or if you prefer, work in the UNT labs or you can access all software thru Citrix:** <myuntlab.cloud.com>**.**

Instructor: Professor Hardy

Office: BLB 367C 🡺 Mon 5:00-6:20, Tue 4:00-6:20, Wed 2:00-3:00, or Zoom by appointment

Email: [LeRoy.Hardy@unt.edu](mailto:LeRoy.Hardy@unt.edu)

Phone: 940.369.8569

**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 programming in a true Mainframe development environment. Upon the successful completion of the course, the student should be able to analyze a business problem, design a solution to the problem, develop a program consistent with the design using IBM Mainframe tools, and implement the solution.

No textbook will be required – Download the COBOL Lecture Notes

Each student will be given an account on an IBM System Z Mainframe.

NEXT, Install the COBOL PC software

Net Express [nx50] COBOL software for a MAC should be run online under Citrix thru the UNT COB LABS or using a dual-boot product that allows Windows Apps.

You can attempt to get nx50 to run at home under WINDOWS as follows:

Download nx50 from Canvas to your c:\ drive or a flash drive, and click that zip file giving an 'nx50' folder

NEXT: **cut that 'nx50' folder and paste it to the root of c:\**giving **c:\nx50**

NEXT:

1. Open a command-line prompt [the black DOS screen]

Then Type CD\ giving you C:\>

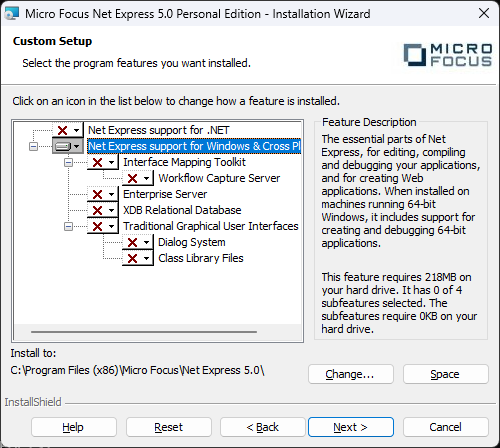
2. Run the NX installation file with the following parameters:

**C:\>nx50\SETUP\NXP3250020077.exe /V"CHECKPREREQLIST="**

In the custom setup list [the tree diagram] only install:

***"Net express support for Windows and Cross platform"***

***BE CERTAIN THAT THERE IS A LARGE RED X BESIDE THE OTHER FEATURES***



PICKUP HERE

By **Aug 27** you are to have run the following 3 example programs on the PC: [see next page for instructions]. They are located in the EXAMPLES folders you downloaded.

[1] READ-WRITE-ADD;

[2] HEAD-LINECNT;

[3] REPORT DATE-COMPUTE; and

YOU MUST HAVE A SEPARATE FOLDER FOR EACH PROGRAM which is how I gave them to you. All 3 files [see below] for each program you run will be together in a folder. Print off ONE COPY of:

[a] The program, [the .cbl file is printed from net express File/Print]

[b] Its input data, [the .dat file is printed from notepad]

[c] Its output report [which you get when you run the program on the PC under NET EXPRESS and is the .doc file which you print with Word]

Bring the a, b, & c parts to class for EACH of the 3 example programs.

**You will take lecture notes in class on the 9 printouts mentioned above [3 programs, 3 input, and 3 output]**

**IN ADDITION TO THE ABOVE PRINTOUTS**

EMAIL A **COPY OF ONLY THE OUTPUT** FROM EACH OF THE 3 EXAMPLE PROGRAMS **TO ME** on or before Aug 27.

Instructions for running NET EXPRESS using UNT's CITRIX or using your PC

1. Open the READ-WRITE-ADD folder's readcbl.cbl program in net express
2. Click the red checkmark icon, Should show no errors
3. Click the black footprint icon
4. Browse to the matching readcbl.int file [IT WILL BE IN THE SAME FOLDER AS THE .cbl FILE YOU ARE RUNNING] and open it, then click OK.
5. Note that the perform 200-open is highlighted
6. Click the black running man icon, and you should get a stop run message.
7. Go to your folder and note your output file, which ends with .doc
8. That's it!!!!!!!
9. Do the same for all 3 of your cbl programs

**Class Schedule**

|  |  |  |
| --- | --- | --- |
| **Aug** 20 | **THIS IS A CRITICAL FULL 3-HOUR LECTURE – DO NOT MISS THIS CLASS**  Assign Mainframe PROBLEMS One and Two  Every 3620 student must complete the IBM ZXplore Fundamentals and Concepts during the semester. Those who already have their Advanced Badge must do the Contest.  **Lecture:** Introduction to IBM System Z  **Lecture:** on Example: READ-WRITE-ADD | |
| 27 | **Lecture:** on IBM System Z and  **PROBLEM Three - how to write a COBOL program from scratch**  ***Bring your PC to class for this lecture*** | **Prob One Due Tues (8/27) [Z]**  [**NOT** Accepted After Tues 8/28]  **3 Examples Due Tues (8/27)**  **ITDS Ethical Behavior Due (8/27)** |
| **Sept** 3 | **Lecture:**  PROBLEM Three &  PROBLEM Four – Changing signs | **Prob Two Due Tues (9/3)** **[Z]**  [**NOT** Accepted After Wed 9/04] |
| **9/4** | **UNT/IBM Z Career Connection Event – Student Union 314B, 5:00 – 6:30** | |
| 10 | **Lecture:**  Q & A on PROBLEM Four  **Lecture:** PROBLEM Five – Basic Rpt | **Prob Three Due Tues (9/10) [PC] [from scratch]**  [**NOT** Accepted After Wed 9/11] |
| 17 | **Lecture:**  PROBLEM Five Q & A  Review for Exam 1 | **Prob Four Due Tues (9/17)** **[Z]**  **[chg sign]**  [**NOT** Accepted After Wed 9/18] |
| **24** | **WEB SESSION A – No class this wek**  Take a practice test for EXAM ONE  Also continue work on PROBLEM Five | **Prob Five Due Tues (9/24)** **[Z]**  [NOT Accepted After Wed 9/25] |
| **Oct 1 – EXAM ONE (Thru Problem Five Only)** | | |
| **Oct 8** | **Lecture:** PROBLEM Six – Col Hdgs | ZXplore Fundamentals 1 & 2  Due Sat, Oct 5 |
| 15 | **Lecture:** Q & A on PROBLEM Six  **Lecture:** PROBLEM Seven – JCL |  |
| 22 | **Lecture:** Q and A on PROBLEM Seven  **Lecture:** TAKE**-HOME FINAL** – Copy/Call | **Prob Six Due Tues (10/22)** [Z]  [**NOT** Accepted After Wed 10/23] |
| 29 | **Lecture: Q and A on TAKE-HOME FINAL**  **Lecture: SORT command & TABLES/ARRAYS**  **Review for** EXAM **TWO** | **Prob Seven Due Tues (10/29)** [Z]  [**NOT** Accepted After Wed 10/30] |
| **Nov** **5** | **TRIP TO IBM IN COPPELL – 6:00 TO 9:00** | |
| 12 | **Exam 2 Review** | |
| **19** | **WEB SESSION B – No class this week**  Read about PACK/UNPACK in DATA FORMATS in CLASS NOTES  Read about COPY/CALL in CLASS NOTES  Read about NUMBER SYSTEMS in CLASS NOTES  Work on PROBLEM seven | |
| **Nov 26 – Thanksgiving Break** | | |
| **Dec 3 – EXAM TWO (Problems Six thru Take-Home Final)  ZXplore Due – Sat 11/30**  **Take-Home Final – Tue Due 12/10** | | |

**ASSIGNMENT DUE DATES SORTED BY DATE**

**Assignments Due Dates**

THE 3 EXAMPLES & **PROB One Tue 8/27**

**PROB Two Tue 9/3**

**PROB Three [from scratch] Tue 9/10**

**PROB Four [chg sign] Tue 9/17**

**PROB Five [1st part] Tue 9/24**

**ZXp-1 Sat 10/5**

**PROB Six [2nd part] Tue 10/22**

**PROB Seven Tue 10/29**

**ZXplore Sat 11/30**

**TAKE-HOME FINAL Tue 12/10**

**The deadline for getting credit for 3620 thru ZXplore is Saturday, Nov 30.**

**I will ONLY record ZXplore grades when you have finished ZXp-1 or received your Advanced Badge, or after November 30 when IBM reports for the last time.**

**The first two ZXplore Fundamentals are DUE BY OCTOBER 5. The remaining Fundamentals, Concepts, and Advanced are due by Nov 30.**

**The first two Fundamentals are easy and must be completed to receive ANY credit. Either 0 or 15 pts.**

**Concepts count for 8 points. While there are 8 – 10 Concept challenges, only two will count as extra credit, regardless of how many you complete.**

**IBM reports the progress on all 3 Levels to me. All work on Fundamentals, Concepts, and Advanced Levels must be done with NO help from anyone - labs, tutors, friends, professors, etc.**

**If you complete the Advanced Challenges perfectly [as graded by IBM], you will receive 60 bonus points for completing the challenges and 10 points for getting your Advanced Badge, making it easy to get an A in BCIS 3620. The All-Star Challenges will not count toward your grade. Otherwise, you will receive partial credit depending on how many challenges you complete correctly [as per IBM]. There are 70 total bonus points available for work on the Advanced challenges. You also get some credit in BCIS 3690 - Advanced Mainframe, for getting your Advanced Badge.**

**NOTE: You may continue to work on the contest until it is over, but only to receive recognition from IBM for your efforts and extra credit in 3690. No work completed after Nov 30 will count toward your grade in BCIS 3620.**

HOMEWORK ASSIGNMENTS MUST BE DOWNLOADED FROM CANVAS

Please turn your work in on time.

# Point Distribution for Problems

PROBLEM ONE 15 SYS Z [**MF**]

PROBLEM TWO 20 SYS Z [**MF**]

PROBLEM THREE 10 PC [Email me]

PROBLEM FOUR 10 **PC &** SYS Z

PROBLEM FIVE 10 **PC &** SYS Z

PROBLEM SIX 15 **PC &** SYS Z

PROBLEM SEVEN 10 JCL/utilities

TAKE HOME FINAL 10 **PC ONLY**

TOTAL 100

Desk check your problems for completeness and accuracy!

All PROBLEMS and DATASETS for the problems, ETC. Can be downloaded from Canvas

Examples will be used extensively in the lecture. Students MUST compile, execute, and print out the results of all Review Examples, AND BRING TO LECTURE!

**IF YOU WORK WITH A STUDY PARTNER, IT MUST BE OVER CONCEPTS [NOT CODE]. YOU CANNOT WORK AS A TEAM.**

**I CONSIDER AND WILL TREAT STUDENTS WHO SHARE CODE AS CHEATERS and MAY AWARD THEM A GRADE OF F FOR THE COURSE**

**I do not help with assignments 24 hours before the deadline for their submission.**

**The reason I do this is to STRONGLY ENCOURAGE students to complete their assignments before the deadline.   
  
Companies fire programmers who get their work finished late. In essence, IN THE REAL WORLD, you will be FIRED if your work is not completed on time and should be done EARLY.**

USING NET EXPRESS COBOL ***ON Citrix*** TO DEBUG PROGRAMS

Net Express can be run on Citrix by going to [https://myuntlab.cloud.com](https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmyuntlab.cloud.com%2F&data=05%7C01%7CLeRoy.Hardy%40unt.edu%7C9b32743b17d743efa51608da75641342%7C70de199207c6480fa318a1afcba03983%7C0%7C0%7C637951369950938251%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=sqB1OOzRBndDHvKdiZ3GE7skmQFcQQiVHx1aFh3U7ww%3D&reserved=0). Net Express will be one of the options you can choose if you do not install it on your PC.

Students can save a considerable amount of time by learning and using the step and add to list and breakpoint functions of the animator for program debugging.

The Animator provides a complete development environment you can use to create, edit, analyze, and optimize your source code. You can edit your program, test and correct syntax and logic errors, animate the program, and navigate its logic.

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**NO MAKEUP EXAMS WILL BE GIVEN DURING THE SEMESTER.**  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Grading System

ZXplore Fundamentals is 15 points

ZXplore Concepts up to 50 points

ZXplore Advanced all bonus points

EXAM ONE 235 points in-class exam

EXAM TWO 200 points in-class exam

TAKE HOME FINAL 10 points take-home

HOMEWORK 1-7 90 points

TOTAL 600 points

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**Please take care of personal business before an exam starts.**

**NO electronic devices are allowed or visible, including smartwatches and calculators. Your phone must be placed on silent and to not vibrate, then placed face down on the desk. Any additional phones used during the exam will be considered cheating, you will receive a zero on that exam, and you will be reported to the Dean of Students. No digging through backpacks during exams, so have out what you need. Caps must be turned backward during the exam, so I can see your eyes. Bring mechanical or 2 pencils with erasers.**

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**YOU WILL NOT BE ALLOWED TO LEAVE THE ROOM DURING THE EXAM.**

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

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

**OFFICIAL UNT 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 various academic penalties or sanctions ranging from admonition to expulsion from the University.

**ADA Accommodation Statement**. UNT makes reasonable academic accommodations for students with disabilities. Students seeking accommodation must 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 the 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. Students **must obtain a new letter of accommodation for every semester** and meet with each faculty member before implementation in each class.

**Emergency Notification & Procedures.** UNT uses Eagle Alert to quickly notify students with critical information during an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence).

**Acceptable Student Behavior**. Student behavior interfering with an instructor's ability to conduct a class or other students' learning opportunities is unacceptable, disruptive, and not allowed in any instructional forum at UNT. I will ask you to **leave the classroom if you engage in inappropriate behavior.** 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 classrooms, labs, discussion groups, field trips, etc.

**COVID Policy statement**

COVID-19 impact on attendance

While I expect you to attend class, as outlined above, we need to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you cannot attend class because you are ill or have a related issue regarding COVID-19. You must communicate with me before being absent as to what may prevent you from coming to class so I may decide to accommodate your request to be excused from class.

If you are experiencing cough, shortness of breath or difficulty breathing, fever, or any other possible symptoms of COVID-19, please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider. While attendance is an important part of succeeding in this class, your health and those of others in the community are more important.