COMP510 Fundamentals of Computer Information Systems

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Fall 2016: Online

Course Description:
This course is designed to investigate the role and impact of computer automation on information systems in general and specifically applied to business information requirements. The course will survey information system technologies, the levels of business information systems, development, and implementation methods for information systems and discuss issues of computerizing the business information system. Application software projects will be integrated into course activities. This is a writing intensive course. The writing assignments will extend your knowledge of concepts in this course and can be useful as you prepare for exams.

Prerequisite for this course is either **COMP411or equivalent transfer course.**

Course Schedule is designated to run from **Aug.29th (Monday) to Dec.12th (Monday)**. Weekly Modules of work will start Monday at 8am & due the following Sunday at midnight.

Materials: - You will need to access a total of three books.
Information Systems for Business and Beyond, Bourgeois, David T. 2014. Saylor.org, Open Textbook Publisher. Pdf format. (Locate in MyCourses/Course Documents Module for download.)

Lab Manuals – **There are two lab manuals. First half of course will use Excel, second half will use Access.**

- **Access 2013 Comprehensive** by Series Editor Mary Anne Poatsy. ISBN = 13-978-0-13-341220-8
- **Excel 2013 Comprehensive** by Series Editor Mary Anne Poatsy. ISBN = 13-978-0-13-341218-5

Computers and Software:
Access to a computer with a Windows 7 or 10 operating system and Office 2013*.
Earlier versions of Office will not have functionality needed to complete labs.
Apple / Mac PCs that do not run a Windows operating system cannot run Access.

* Office 2013 is available to download on your personal computer at:
https://www.unh.edu/it/kb/article/installing-microsoft-office-students.html
Office **365** is **NOT** fully functional for the lab assignments. Be careful with the instructions on the installation notes above that you do indeed download 2013 and not cloud based 365.
All laptops and desktop computers at UNHM have 2013 for your use.

Internet access to MyCourses for data files, assignments, and to upload weekly responses. (https://mycourses.unh.edu)
NOTE: Technical difficulty at your home or work computer is no excuse for not submitting required documents on time. The college has reliable Internet connection for you to upload and download course materials.

Course Objectives:

- Examine information systems as an integral component of all business units.
- Survey the technology and procedures of IS and relate its impact to the business organization.
- Expand your knowledge of hardware and software trends.
- Learn about data bases, including organizing, query, report data and information.
- Expand your knowledge of telecommunications, the Internet, intranets, and extranets.
- Learn techniques to transform data into information using Excel and Access and expand your understanding of applying Excel and Access in the work arena.
- Use writing assignments to expand your knowledge of computer usage in business and to enhance your ability to write professionally.

Class Structure:

This is an on-line class. This course builds upon the software knowledge from COMP411 and has reading and lab activities due every week.

- Active student participation is central. Although you will be able to make your own schedule for assignment completions, there are a significant number of assignments due during the course.
- You will upload your assignments using MyCourses. Due dates are enforced using restrictions in the MyCourses application.
- Grades can be checked and should be checked in MyCourses.
- It is your responsibility to use your syllabus, plan and organize your time and complete assigned course work in a timely manner.
- Weekly modules of activities and materials will be posted in two week units: current and next week module. You cannot complete Week 2, for example, without first completing Week 1. This will allow you to work ahead of the due dates, but not skip a week to address the following week.
- Weekly readings and lab activity unless otherwise stated are always due the following Sunday at midnight.

Course Time Allocation:

The activities in this online course constitute a 4 credit course.

Expect to use apx. 6-9 hrs/week to complete the materials for this course.

The Student Handbook states on pg.18: ***04.211(fs) UNH Credit Hour Policy*** *. The University of New Hampshire is in compliance with the federal definition of credit hour. For each credit hour, the university requires, at a minimum, the equivalent of three hours of student academic work each week.*

Written Responses:

Weekly topics on the fundamentals of Information Systems will be assigned from the electronic textbook or specific articles stored in the Weekly Module. Responses are completed using Word and written in complete sentence format unless otherwise noted. There is a "response template" file stored in the Course Document's Module. Feel free to use it as the base formatting is established. Written material is submitted via MyCourses, reviewed, and returned for future study in preparation for quiz and exams.

Software Activity:

Software activities are designed to acquaint students with advanced features of Excel and Access as they apply to business information systems. The lab manual is designed as a **stand-alone learning tool**. Using the required manuals, you are learning how to resolve software problems on your own – a skill that will be needed when you get a professional job. This may require a close, careful reading of the explanations and samples in each assigned chapter. While this is not a math class, Excel does use math. If you feel "math challenged", be sure to study the explanations of the formulas carefully.

Methodology for Completing Labs:

DON'T WAIT TILL THE DAY BEFORE THEY ARE DUE.

Step 1. Read the chapter materials until you have absorbed them.

Appropriate data files are available on-line at www.pearsoncustom.com/customphit/datafiles as well as posted in MyCourses.

Step 2. Complete the Hands-On Exercises. If you have difficulty understanding the steps, please re-read the chapter materials again. These Hands-On Exercises walk you through the new concepts. Using both the Hands-On and Practice exercises will enable you to successfully complete and understand all the materials

Step 3. Review the lab activity requirements and files to submit to be sure you have addressed all components for the Weekly work.

Step 4. Submit the files identified at the end of each weekly lab activity in a folder. Folder name: **lastnameLab#**.

- Compress the folder using Windows file compression tool.
- Upload the .zip folder to the Weekly Assignment Module. **Do not email me your homework submissions.**

Plan enough time to take advantage of the materials in your lab manuals.

Lab assignments are posted on MyCourses until their due date. Each student is responsible for downloading assignments prior to the due date and uploading the responses before the deadline. Because "stuff" happens, each student may take advantage of a "*Delayed Lab Pass*" to extend the due date of TWO lab activities. See the Course Documents Module to download the pass and complete.

Lab activity will be evaluated on completeness, accuracy, and timeliness.

SURVIVAL TOOLS:

LAB BUDDY

To assist you with understanding the often complex lab activities I suggest you work with a lab buddy. You must **each do your own work**, but by sitting together at the computers, you may consult with your buddy to resolve problems regarding the activities. You may **NOT** do one set of lab activities and duplicate it for your partner to submit. Students suspected of excessive collaboration will receive a zero for that particular project.

WORKSHOPS

I will host a 90 minute lab session each week for those who have questions or want to work in a supervised lab. Days and times for these workshops will be posted in MyCourses. If you have difficulty with a lab session, I strongly advise you to attend the weekly workshop.

"DELAY SUBMISSION PASSES"

Reading material may not be submitted late: work smart, work ahead. You have a "Delay Submission Pass" to use for two lab assignments if you need to submit the lab activity late.

Life Issues: IF you have "life issues" that will significantly impact your ability to complete the course activities on time, I must receive an email within a week of the issue and you will be asked for appropriate documentation from a doctor or academic counsellor.

Exams/quizzes: Exams and quizzes cover specific topics from the reading and lab activities. You will receive a study guide for the two major exams. Shorter quizzes will be announced 1 week prior to completion.
Exams and quizzes **cannot be made up unless prior arrangements** are made with the instructor and critical documentation is provided. (see "Life Issues").

Assistance: I am available via MyCourses/Inbox. I am not at the computer 24/7, but will make an effort to check each day for messages. If you have a question on the work include specific details: the page number you are working on, the problem you have encountered and the keystrokes that you have used to solve the problem. If you have encountered an error message, include the exact wording of the error message. I am available during the weekly workshop meetings to personally assist you with the lab activities. Days, Times, Lab area are posted on the syllabus page in MyCourses.

Course Grade:

Written Responses	175 points
Lab Activity:	210 points
Exams (2)	200 points
Quizzes:	100 points
Course Intro.	15 points
TOTAL	**700 POINTS**

Specific points vary per activity and reading. Each reading and lab will have the points identified for that work.

You can track your progress in MyCourses/Grades. You should check **each submission** to ensure that you have finalized your submission. **If you do not finalize your submission, I cannot grade your work.**
A "grade calculator" is stored in Course Documents folder. At any time during the semester you can enter your points and the total assigned points to learn your % grade and letter grade. Don't wait till the end of the semester to find out you don't have sufficient points to pass the course.

Standard used for letter grade assignments @ UNH:

- A range = 100 – 90
- B = 89 – 80
- C = 79 – 70
- D = 69 – 60
- F = less than 60

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Instructor: Karla Vogel (karla.vogel@unh.edu)
Use MyCourses/Inbox mail program to contact me for course information.
Specific Course Materials posted under **MyCourses.unh.edu**

Week 1:	Course Introduction **Nature of an Information System** **Reading** topics: o Components and Functions of an Information System **Excel** topics: o Spreadsheet and formula review o Review Chart properties and development
Week 2:	**Competitive Strategy and Information Systems** **Reading** topics: o Nature of competitive strategy o Information Systems that contribute to competitive strategy **Excel** topics: o Properties and Manipulation of large datasets o Working with data tables. o Group and subtotal large datasets
Week 3: Quiz 1	**Business Processes and Information Systems** **Reading** topics: o Nature of a business process o Benefits of ERP and BPR systems **Excel** topics: o Subtotals and Outlines o Pivot table construction. o Pivot table Design and Chart formatting

Week 4:	**Information System Professionals** **Reading** topics: o Creators and Operators of IS o Organizational structure of IS o Emerging professionals in IS **Excel** topics: o Decision Making Tools: Variable Data Tables, Goal Seeking, Scenario Manager
Week 5:	**Information Systems: Development Process** **Reading** topics: o Process of developing IS o Development Methodologies o Programming Languages for IS o Web Services o Implementation Strategies **Excel** topics: o Financial functions for Amortization Table o Math and Statistical functions
Week 6:	**Information System Components: Hardware** **Reading** topics: o Primary components of computer system o Integration of digital devices o Issues of commoditization and electronic waste **Excel** topics: o Using external data sources o Using templates, themes, and styles

Week 7	**Information System Development: Software** **Reading** topics: o Types of software o Enterprise software o Cloud Computing o Virtualization **Excel** topics: Summary Activity
Week 8 **Exam 1**	**Information System Development: Data & Databases** **Reading** topics: o Data, Database o Data warehouse, Data mining o DBMS o Big Data for today's organizations No lab activity this week.
Week 9:	**Information System Development: Communication Systems** **Reading** topics: o LAN, WAN, InterNet configurations o Internet protocols o Wireless data transfer **Access** topics: o Components of Access database o Creating a data table o View, sort, filter data.
Week 10:	**Social Media Information Systems** **Reading** topics: (articles in Week 10 Module) o Components of SMIS o Business uses in functional units o Risks and Benefits o Policies to implement a SMIS **Access** topics: o Design and define data tables o Add relationships to multiple tables o Single and multi-use table queries.
Week 11:	**Information Systems Security**

	Reading topics: o Access Controls o Encryption Methods o Physical Security Measures o How secure is the "Cloud"? o Discussion Board Activity. **Access** topics: o Customize, analyze data in a query o Summarize data from multiple tables in a query o Create input forms
Week 12	**Future of Information Systems in your career.** Independent essay based on developments in technology that will impact business functions in your career area. See details in Week 12 Module. **Access** topics: o Create and manipulate reports o Validate data entry techniques o Data analysis using advanced queries
Week 13:	**Business Intelligence Systems** **Reading** topics: o Decision Support o Data Analysis o Data Warehouses o Knowledge Management o OLAP Analysis **Access** topics: o Import data into a table, form, report. o Export data to external files o Database security techniques
Week 14:	**Roundup of topics, Review for Exam2** **Access** topics: o Summarize the database activities
Week 15:	**Exam 2**