



Eastern Connecticut State University
SCHOOL OF EDUCATION AND PROFESSIONAL STUDIES
DEPARTMENT OF BUSINESS ADMINISTRATION

BIS 462 Seminar on Health Care Informatics
Fall semester, online

Lecturer: Dr Don Petkov, web site: ECSU site: www.easternct.edu /Academics/Departmental web pages/Faculty web pages/Petkov or <http://www.easternct.edu/personal/faculty/petkovd/index.html> ;please note that the communication in this online course will take place through Blackboard email only please. By exception you can send an email to petkovd@easternct.edu if there is a technical problem with Blackboard (see in the Blackboard web site for the course in Subject resources instructions on tuning your computer and downloading plugins for Blackboard webct) .

This is an online course where the student studies the material on their own using the available resources in the WebCT site for the course at their own pace however submitting the prescribed assignments, lab work and projects within the prescribed deadlines. The instructor will provide also weekly e-chat sessions for consultations. The students will also interact through threaded discussions, group chat rooms and white board facilities provided within Blackboard.

The only synchronized activity, that must be undertaken at the same time by ALL students without exception are the tests and the exam. All tests will take place every second Monday in September, October (midterm) and November starting exactly at 9.30 pm till 11.00 pm. Eastern US time. The exam will take place at 9.30 pm on the Monday of the exam session. If a student cannot be available for those tests for whatever reason then the student must try to make arrangements to change work or other obligations and be available as no changes are possible to the time and dates of the tests please. If a student is unable to write a test then she/he gets 0% for the corresponding test unless the instructor receives a scanned copy of a doctor's note declaring that the student was unfit to write the test or if there is another valid reason. In such a situation the student will get for that test a grade based on the average grades of the other prior tests.

A student may miss for medical reasons at most one test in order to get a grade based on the average test grade based on prior tests but if the student has a valid doctor's note and misses more than one test, then the student will have to write a separate extra test in arrangement with the instructor. If a student misses the final exam or does not submit the project on time, the student gets an F grade unless he or she submits a doctor's note scanned and emailed to the instructor via webct email. In such a case the student will get an Incomplete and then the final exam can be written alternatively in a face to face session at ECSU by arrangement with the instructor.

Student consultations: only via the webct email (students can expect an answer within 24 hours or earlier from the time of sending an email during one of the following days Monday till Friday every week.

The students are expected to check the course web site at least three times a week for instructions related to the course – on Tuesday, Thursday and Sunday. An email sent by noon on a given day from those listed above may be replied within the same day while an email sent in the afternoon or in the evening may be replied to on the next day.

Instant messaging common chat sessions in WebCT for consultations which each student may wish to join (even just for watching what others are asking sometimes) from 6 pm till 6.45pm **Eastern US time on Mondays**. These can be used for synchronous communication with your instructor.

Deadlines are declared in the schedule below and in the links for the corresponding elements in webct, by 11 pm on the particular day. It is very important that you stick to them. You can submit

without penalty within 7 days from the deadline which usually captures all cases of short trips or short illness. **If a submission is made between 8 and 10 days after the deadline for whatever reason, the penalty will be 20% of the corresponding grade. If a submission is made after 10 days past a deadline, then the penalty will be 30%.**

What to do if I have gaps in my knowledge of Windows, Word, Outlook, the Internet or Powerpoint

Please use also if applicable the respective online tutorials which can be accessed via the link for Entry level skills in the subject resource area of the Blackboard site for this course.

Can I submit via Blackboard/webct the results for each task of a lab or assignment individually or together in one session

You will have to complete all the theoretical or practical problems for the particular assignment. You must finish all theoretical and practical tasks and only then upload together in one session all the resulting files in the link for submitting your Assignment in Blackboard Vista.

ECSU Course Catalogue Description:

BIS 462 Seminar on Health Care Informatics

3 Credits

This course is designed to provide students with an in depth analysis of health care informatics. Emphasis will be on developing a comprehensive understanding of the use of information systems in health care. Topics covered include health care data, information and knowledge, health care classification and coding systems, decision analysis in health care, computer based patient records, design and implementation issues related to health care systems, and ethical and legal principles in health care informatics. The focus is on applying information systems and health care concepts to real world problems in health care.

Prerequisites: Any LAC Tier II Applied Information Technology Course or equivalent

The **main aim** of this course is to provide the students with understanding of information technology to explore applications of information systems in health care organizations, the impact of computers on health care, the development of critical thinking skills in analyzing health care information systems problems, practicing information literacy skills, the ethical use of digital information for health care.

Course learning objectives: After the completion of the course, a student will be able to:

- Understand the role of information systems in the health care professions.
- Apply measures to ensure quality of healthcare information.
- Develop critical thinking and information literacy skills for analyzing health care information systems problems;
- Understand important information systems applied to health care.
- Explain the technical and ethical limits of health information systems including electronic patient records.

Personal development student goals: The above goals and objectives will be pursued through the parallel development of analytic and information search skills, communication skills, development of self-discipline and ability to cope with change and work under pressure individually and in small teams.

Methods and instructional materials employed: The course objectives will be pursued through threaded discussions if applicable or guided on-line self study, small group work on a problem solving project, work with the textbook (you are expected to have your textbooks with you at every session since you will use it for the practical work), home assignments, library and Internet search.

Required textbooks: Please use the book to prepare in advance for every week, following the schedule below.

Hebda, T., Czar, P and Mascara C. Handbook of Informatics for nurse and health care professionals, Prentice Hall, 2009 edition.

Additional materials that are relevant for particular topics will be posted in the web site for the course in Blackboard.

Supporting on-line Resources:

The lectures, PPT and additional materials will be found on the Blackboard Vista course site for your section.

Self quizzes, ppts and other resources are available at the student resource website for the textbook: http://wps.prenhall.com/chet_hebda_informatics_3/ after choosing the corresponding chapter that we use in the particular unit.

Other Requirements:

- WEBCT/VISTA account and an ECSU user name and password
- Technical Requirements: A computer and Internet access, Office XP, or Vista with installed plug-ins for running WebCT/VISTA and Java components – see your WebCT/VISTA site for this course section, Microsoft Office 2007 that you may obtain for free by being a student at ECSU – just visit in person the computer lab Webb 410 on campus to get the instructions from the staff working there. Note however that if your computer is not powerful and has internal memory of less than 1 GB it will be better for you to continue to use either Office XP or Office 2003 or an Open Source version of an Office software that is compatible with MS Office 2003. You may want to download from the Microsoft web site free file format converters allowing older versions of Office to read Office 2007 format files. Your instructor can process your assignments if they are sent in either MS Office 2003, XP or 2007 format files and **not** using any other software like Microsoft Works please.
- Passwords should be changed every 90 days. Read regularly your ECSU email to get automatic notification when it will expire so that you can change on time and avoid troubles with your access to the ECSU computing facilities.

Requirements for completion of the course: To successfully complete this course the student must pass the final examination, the tests and complete the team project and assignments. Grading is as follows:

- Team project 25 %.
- Two tests 4% and 6% respectively each.
- Midterm test – 10%
- 6 Individual home assignments- 36%
- Student participation in threaded discussions, chat sessions etc 4%
- Final exam 15%

The **grading scale** will be 93-100 =A; 90-92=A-; 87-89=B+; 83-86=B; 80-82=B-; 77-79=C+; 72-76=C; 70-72=C-; 67-69=D+; 63-66=D; 60-62=D-, 0-59=F.

Accommodation of students with disabilities:

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Office of AccessAbility Services at 465-5573. To avoid any delay in the receipt of accommodations, you should contact the Office of AccessAbility Services as soon as possible. Please note that I cannot provide accommodations based upon disability until I have received an accommodation letter from the Office of AccessAbility Services. Your cooperation is appreciated.

Class Schedule:

Homeworks, quizzes, tests, project are to be submitted **ONLY** via Blackboard /VISTA unless otherwise instructed in a specific case. Do not send them as attachments to ECSU emails. The details of the course work and the term project are found below.

Unit	Lecture Topic	Reading Assign	Projects/Assignments Announcements
One, week 1	<p>Introduction to the course. Informatics in the Health Care professions (ch 1)</p> <p>Review of MS Windows Vista and Office 2007 interface and format issues. Note that general computing skills are expected to be known by the student from previous courses. You may use the online tutorials by Microsoft to refresh your knowledge.</p>	<p>Hebda ch 1</p> <p>Self revision on Windows and other introductory material and Review on your own of MS Word</p>	<p>Each unit the student is responsible to read the material covered during the unit. This includes the chapter Cases.</p> <p>Discuss any difficulties for working on the group project with the instructor by email or in class before Unit 2.</p>
Two, week 2	<p>Overview of hardware and software (ch 2 – not examinable, only for self review) and Ensuring the quality of information (ch 3)</p>	Hebda ch 2,3	<p>Finalize your work plan on the team project.</p> <p>Test 1 on the second Monday of September at 9.30 pm</p> <p>Homework 1 due</p>
Three, week 3	<p>Review of Units 1 and 2; plus new: Electronic communication and the Internet (ch 4) Creating a simple web page using MS Publisher</p>	Hebda ch 4.	Project Review
Four, weeks 4-5	Healthcare Information Systems, ch 5	Hebda ch 5	Homework 2 due
Five, weeks 6-7	<p>Selecting a healthcare information system, (ch 7) Introduction to decision making</p> <p>Spreadsheet modeling</p> <p>Revision of all past material</p>	<p>Hebda ch 7</p> <p>And additional materials on spreadsheet modeling and decision making</p>	<p>Test 2 (midterm) on the second Monday of October at 9.30 pm</p> <p>Homework 3 Due</p>

Six, week 8	System implementation and maintenance (ch 8)	Hebda ch 8	
Seven , week 9	Information security and confidentiality, Hebda ch 10 And also ch 14 up to pg 299 on Business Continuity Planning	Hebda ch 10	Homework 4 due
Eight, week 10	System Integration Hebda ch 11	Hebda ch 11	Test 3 on the second Monday of November at 9.30 pm
Nine, weeks 11 and 12	The electronic health record Hebda ch 12 And Creating a brochure in MS Publisher – related to Regulatory and accreditation issues in ch 13 of Hebda	Hebda ch 12, 13	Homework 5 due
Ten Week 13	Telehealth Hebda ch 16	Hebda ch 16	Team project due
Eleven Week 14	Legal and privacy issues, Hebda ch 16 , Revision	Hebda ch 16	Homework 6 due
Twelve Week 15	Revision for the final exam		

Academic Honesty and Writing Policy Statement

Among the primary purposes of a university education is the development of abilities and attitudes necessary to engage thoughtfully and ethically with the ideas of others--so that you make fully, accurately, and appropriately clear in your writing (or speaking) where and how those others have influenced your thinking and your conclusions. These abilities and attitudes are generally part of the larger concept of "academic honesty."

Academic honesty involves taking responsibility for your own education, completing all work required of you on your own, and contributing thoughtfully and fully to any group work assigned or sanctioned by your instructors. In more straightforward terms, academic honesty means not cheating on tests and not plagiarizing. Generally, there are two kinds of plagiarism: intentional and unintentional. Acts of intentional plagiarism include turning in a paper obtained from a roommate, friend, or web site as your own, or cutting and pasting together a paper from several such sources.

According to the ECSU Student Handbook, Academic Misconduct is punishable in a number of ways, including expulsion from the university.

Unintentional plagiarism usually occurs when students do not understand the rules and procedures for properly quoting, paraphrasing, and citing source information. As a rule of thumb, remember 1) for exact words (whether full sentences or phrases), use quotations marks or a block indentation, together with an in-text citation; 2) for a summary or paraphrase, show exactly where the source begins and exactly where it ends by introducing the borrowing with a comment about it and closing it with an in-text citation. If you have any questions or concerns about this policy, it is your responsibility to raise them and ask for clarification until you are certain of its meaning.

Team project topic and instructions

Topic: Analyze a particular health care information system for possible system disasters and compare to best practices in that area

A group of 3-4 students will work on the team project. The team needs to identify a suitable real health care system and provide an audit of it on possible disasters.

Regarding the analysis of related best practices that have to be analyzed as a part of the project, you need to find also at least 7-8 relevant refereed journal sources using library databases like ABIINform and EBCO Host Academic Search Premier or other database that contains relevant sources for the topic. It needs to be not longer than 9-10 pages single spaced text and needs to present a synthesized analysis of the particular crisis as a Word report and a separate PPT presentation (of no more than 12 slides) – both to be submitted to the instructor by the due date, 11 pm . The team projects should show in a separate your analysis of findings from published sources (including mostly refereed papers however some regular media publications are often useful as well) or the internet.

The project report needs to report on a real system coordinated with the instructor. It needs to have a title, a one page abstract (Executive Summary), a main body presenting the results on each of the three items above in the same sequence. At the end of the report list your references (sources of information). Use only the Harvard Notation for references, a copy of which is provided by your instructor electronically) or the APA reference guide.

When you start the research component of your project you need to consult the instructions on the stages in the writing process at the web site of the writing program of the University of Wisconsin, using the top link in the following page:

<http://www.wisc.edu/writing/Handbook/> . You are writing a research paper, hence the need to check these instructions:

<http://www.wisc.edu/writing/Handbook/PlanResearchPaper.html> and more specifically you are writing a review of literature:

<http://www.wisc.edu/writing/Handbook/ReviewofLiterature.html>. You need to apply either the APA method of referencing available at :

<http://www.wisc.edu/writing/Handbook/Documentation.html> or preferably a much simpler version called Harvard Method of Referencing - see

<http://dlibrary.acu.edu.au/library/skharvard.htm> . However if you know well any other method of referencing, please state that you are using a particular style explicitly and I will accept your paper using that particular style – see styles here

<http://www.wisc.edu/writing/Handbook/Documentation.html> Please note that IT IS NOT acceptable to use your own improvisation on a reference style and expect to get a high grade.

Please note that a research review (that is part of your project) has to be planned first. Find using the library databases like ABIInform at least 30 sources, explore their titles and abstracts, then reduce them to 15, browse through their abstracts and full text, from which you need to select the needed relevant sources which you have to read carefully . Note that at least seventy percent of the selected final sources have to come from refereed journal papers and the rest may come from trade magazines or electronic media. Please note that you need to do some cross referencing between the plan of your paper and the content of the selected articles before you start to write as I explained in class. This will provide you with several supporting references for each point in your plan of the paper. Avoid writing a sequence of summaries of several papers that have no analytic value. Provide also your assessment of the importance of a particular statement. Use references in the text, do not just list them at the end. Use references to provide credibility to your own work, to give credit to others who have written on the subject and also to provide a roadmap for someone to continue your work in the future.

One of the dimensions of our rubric for the final papers includes evaluations of your writing styles . Further instructions on that can be again found in: <http://www.wisc.edu/writing/Handbook/>. Your report needs to be in Word with clear formatting of a title, author, subject name and indication that this is an individual research paper.

Submit the project report as a Word file as the product of project 1 through WebCT.

All projects will be virtually presented (using PowerPoint) by each team .

The body of the project aper has to start with a proper title, list of the authors and the subject, a summary abstract (written at the end of the writing process), list of the content of the project paper (each item needs to be linked as a hyperlink to a respective bookmark on the section titles in the document as described in class) , introduction and sections with clear self explanatory specific titles, followed by a conclusion and references.

Every student will evaluate the performance of each team (besides own) using a rubric for presentations and also the team work performance of each project team member using a different rubric – both to be provided to you by your instructor.

Please note that you need to consult with your instructor by Vista email on the first draft of your projects before submitting them. An excellent project should reflect the following requirements:

- 1.It needs to show that the authors have investigated professionally the problem, including the review for disasters of the real health care system (see chapter 14 of the book for further guidelines)
2. The report needs to be supported by relevant literature references for its research section.
3. The size of the report without references should be not exceeding 4000 words but should not be less than 2500 words. However the quality of the report reflecting application of the body of knowledge on Information Systems covered in class and adherence to the guidelines matters more than the size please.

You will be working in groups of several students determined by your instructor.

The best projects are expected to participate in the School Student Research Excellence Expo.

The students are encouraged to seek consultations on the project at latest two weeks before the deadline. Hence the work needs to be planned well. The contribution of each team member will determine the grade she/he receives in this project. I need to get a report on that from each team leader.

Please note that you have to provide where necessary starting assumptions for those details that are not available in your project case.

If anyone misses the dates of paper or project presentations and ignores the deadlines for a valid medical reason, I need to get a medical certificate according to the university rules and in that case the student will get an incomplete grade till submitting the work but no later than 2 days before the prescribed deadline in the ECSU academic calendar for the next semester. If you have any other reasons for not submitting the work, please discuss them with your instructor whether you can get an incomplete grade as a final opportunity for you which however will be associated with a 20% penalty for late submission.