



**BIS 462 Seminar on Health Care Informatics
2011 spring, online**

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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 Vista). However please use only the Blackboard email.

Student consultations: Monday 12.45 pm -1.45 pm (office) and **10.15 pm-11.00 pm (this one is via Vista common chat room only for the online class-all students are expected to be participating as often as possible)**; Tuesday 2.15 pm-3.45 pm and 7pm - 7.30 pm (office), Wednesday 4.30 pm-6.30 pm (office) or by appointment set by email in very exceptional circumstances only.

The students are expected to check the course web site at least three times a week (Monday, Wednesday and Friday) for instructions related to the course.

This is an online course in a fast growing interdisciplinary area on the intersection of Healthcare/Public Health Management and Information Systems. The student learning is facilitated by the instructor through technology. A student studies the material on their own using the available resources in the Vista site for the course at their own pace however submitting the prescribed assignments, research paper and project within the prescribed deadlines. The students will also interact through threaded discussions, Vista email and synchronously using the Vista group chat rooms (these are numbered in the whiteboard-chat tool of Vista Blackboard and thus can be used by the respective teams at times they setup themselves to enable virtual communication).

This course can be taken by NON BIS/CS students and by BIS/CS students – the nature of assignments, research papers and the project tasks will reflect the major of the respective student so that no one should be experiencing difficulty with material that is too technical for the nature of their major.

The only synchronized activity, that must be undertaken at the same time by ALL students without exception are the consultation chat sessions mentioned above, the three tests and the exam. All tests (on Feb 13th, March 6th and May 1st) and the exam (May 15th) will take place on Sundays and will be open from 9.30 pm till 11.00 pm with a duration of 60 to 90 minutes (can be started any time between 9.30 pm and 11 pm but their availability will expire after the prescribed duration). Ask any questions related to the tests in the chat session on the preceding Monday. **IMPORTANT: 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 write a different**

extra test the following Monday at 10 pm. That is not valid for the final exam however. A student who does not write the final exam for valid reasons gets an incomplete grade and makes arrangements with the instructor for an alternative exam date.

A student who does not complete the team research paper or the team project or the final exam cannot get a pass grade and gets an incomplete only if there are valid reasons till completing these essential course requirements.

If a student misses the final exam or does not submit the team project or the team research paper by May 15th, the student gets an F grade unless he or she submits a doctor's note scanned and emailed to the instructor via Vista 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 in September.

Student consultations: via the online common chat room in Vista on Monday at 10.15 pm or face to face during my office hours or via the Blackboard email (students can expect an answer within 24 hours from the time of sending an email during one of the following days Sunday till Thursday every week. Please do not use instant chat.

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. I may be answering emails also on some Fridays and Saturdays but as a rule you cannot expect an answer to emails these days within 24 hours please.

Deadlines are declared in the schedule below and in the links for the corresponding elements in Vista, by 11.30 pm on the particular day. It is very important that you stick to them. You can submit without penalty within 3 days from the deadline which usually captures all cases of short trips or short illness. **If a submission is made between 4 and 7 days after the deadline for whatever reason, the penalty will be 10% of the corresponding grade. If a submission is made after 7 days past a deadline, then the penalty will be 20%.** No submissions of assignments, projects or research papers will be accepted after May 15th unless you have a medical reason and in that case you will be able to submit them in September according to the conditions and rules for Incomplete grades at ECSU if you have shown evidence to the instructor that you deserve to be given an Incomplete grade.

If one student is reported to me via Vista email by another that he/she does not prepare for group meetings (face to face or virtual) and does not cooperate for more than 5-7 days I have to be notified in Vista email by the other students asap. Then we have to meet with the student at fault in my office hours asap. *If a student continues not to perform for another week then the student will have an F grade for the course as the projects are an essential part of the final grade and such a student will have to repeat the course.* New teams will be formed of those remaining students.

This course does not require technical knowledge beyond introductory Information Systems and Computer Literacy. However if you have gaps in your 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.

Please note that you need to submit via Blackboard/Vista the results for all tasks of an assignment together in one file in one session. You will have to complete first all the theoretical or practical problems for the particular assignment and save properly your work (be careful to save it only on your Z drive if you work at ECSU as otherwise you will lose it) .You must finish all theoretical and practical tasks and only then combine all your answers in ONE report IN ONE WORD file the content of all the resulting files from your work and submit that

file it in the link for submitting your Assignment or project in Blackboard Vista. DO NOT send each task answer in a separate file. DO NOT send answers only to half of the tasks as you will lose points in your grade that will affect negatively your final grade. If you cannot attach your assignment from home for any reason you have to use the computers in the labs at ECSU. If you cannot attach at ECSU as well you have to try another computer or you have to contact the ITD help desk for assistance with your user profile or your computer settings. Homeworks, tests, project, res paper are to be submitted ONLY via Blackboard /VISTA AS ONE FILE ONLY. Do not send them as attachments via ECSU email.

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

Please note that the above prerequisite requirement means in practice most often good computer literacy and some information systems literacy obtained through experience or by taking BUS205 Information Management or a CS introductory course. You may satisfy formally the requirement even with a course in statistics or communications if it is defined as an ECSU Tier II Applied Information Technology course. If you do not have good understanding of Word, Excel, the internet and some knowledge of information systems or computing in general then consider taking concurrently BUS205 please or delay taking BIS462 till you have the necessary minimum Information Systems literacy or alternatively read in our library from the reserve section chapters 1-7 from the book by David Kroenke, Using MIS, second or third edition in order to catch up on these in a short time.

The **main aims** of this course are to provide the students with understanding of healthcare 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, to practice information literacy skills and understand 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. Threaded discussion questions will be posted in the respective link in the Blackboard Vista course and the answers provided within a specified time by the instructor will count against the student participation grade.

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

Hebda, T., Czar, P., Handbook of Informatics for nurse and health care professionals, Prentice Hall, 2009 edition. (4th edition). Do not buy older editions as they are different and some text and tasks are missing completely. If you have the previous edition then it is your responsibility to get the corresponding tasks and text as they are in the 2009 edition through someone who has the 2009 edition as all assignments and any reference will be about the 2009 edition please and the instructor cannot provide information about any resulting differences please.

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_4/ after choosing the corresponding chapter that we use in the particular unit.

Other Requirements:

- VISTA account and an ECSU user name and password
- Technical Requirements: A computer and Internet access, Windows XP, or Vista or Windows 7 with installed plug-ins for running Blackboard VISTA including Java components – see your WebCT/VISTA site for this course section, Office 2007 or Microsoft Office 2010 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 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. Do not use 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, the team research paper and assignments. The course cannot be completed without the final exam, the team project and the individual paper even if your grade based on the other tasks exceeds 60%. Grading is formed as follows:

- Team project 15 %
- Team research paper 15%.
- Three tests 5% each

- ❑ 6 Individual home assignments- 36%
- ❑ Student participation in threaded discussions, chat sessions etc 4%
- ❑ Final exam 15%

The midterm grade will be based on Test 1, Test 2, Homeworks 1,2,3 which combined are 25% of your overall result.

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 465-0189. 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.

Team project topic and team research paper instructions are provided in separate links in Blackboard Vista in Unit 1. The composition of each team will be communicated to you by your instructor in Blackboard email by the first Friday of the course, the assigned topic as well as the topic for the team research papers. The topics will reflect the nature of the major of a student.

Class Schedule:

The details of the course work are found below.

Unit	Lecture Topic	Reading Assign	Projects/Assignments Announcements
One, 01.24	Introduction to the course. Informatics in the Health Care professions (ch 1) 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.	Hebda ch 1 Self revision on Windows and other introductory material and Review on your own of MS Word	Each unit the student is responsible to read the material covered during the unit. This includes the chapter Cases. Discuss any difficulties for working on the group project with the instructor by email or in the chat sessions.
Two, 01.31	Overview of hardware and software (ch 2 – not examinable, only for self review) and Ensuring the quality of information (ch 3)	Hebda ch 2,3	Finalize your work plan on the team project with team mates using Vista email and team chat rooms. Homework 1 due 2.2

Three, 02.07	Review of Units 1 and 2; plus new: Electronic communication and the Internet (ch 4)	Hebda ch 4.	Use the chat for discussion of the project issues Test 1 on 2.13
Four, 02.14 And 2.21 (We will have a chat session on 2.21 no matter that it is a holiday)	Healthcare Information Systems, ch 5	Hebda ch 5	Homework 2 due 2.16
Five, 02.28	Selecting a healthcare information system, (ch 7) Introduction to decision making Spreadsheet modeling Revision of all past material	Hebda ch 7 And additional materials on spreadsheet modeling and decision making	Homework 3 Due 3.2 Test 2 is on 3.6
Six, 03.7 and 3.14 3.21-3.26 recess	System implementation and maintenance (ch 8)	Hebda ch 8	Team project due 03.16
Seven, 03.28 and 4.4.	Hebda ch 15 Continuity planning and disaster recovery	Hebda ch 15	Homework 4 due 3.30
Eight, 04.11	System Integration and interoperability Hebda ch 11	Hebda ch 11	Homework 5 due 04.13
Nine, 04.18 and 4.25	The electronic health record Hebda ch 12 And Creating a brochure in MS Publisher – related to Regulatory and accreditation issues in ch 14 of Hebda	Hebda ch 12, 14	Team research paper due 04.20 Test 3 is on 5.1
Ten 05.02 and 5.9	Telehealth Hebda ch 17	Hebda ch 17	Homework 6 due 05.04 The exam is on 5.15.

Project and Team research paper descriptions are in Unit 1 of our Blackboard course. Project and Team research paper allocation information in Vista to be posted by the first Friday via Vista email.

Students are encouraged to use the support offered by the **Academic Services Center** located on the ground floor of the Library.

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.