

IDIS 213: The Impact of Technology on Diet and Disease

~ Spring Semester, 2010 ~



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Office hours: Tuesdays and Thursdays 10:15 – 11:45 am
Wednesdays 1:00 – 2:00 pm

** I can meet with you at other times, but please schedule these appointments with me ahead of time.*

Class Time/Room: Tu/Th 2:35 – 3:45 pm in 330 PPHAC

Course “support”: There is a Blackboard shell for this course; please check this site for announcements and updated postings on a regular basis.

Required Books: Tom Standage (2009) [An Edible History of Humanity](#) (Walker and Co.)

Greg Critser (2003) [Fat Land: How Americans Became the Fattest People in the World](#) (Houghton Mifflin).

Laurie Garrett (1994) [The Coming Plague: Newly Emerging Diseases in a World Out of Balance](#) (Penguin Books).

*** Please note:** *There will be a number of additional required readings that will be put on reserve in the library, posted on Blackboard, or found at various internet sites.*

Course Description:

“Throughout history, to the present, technology has had an enormous impact on two fundamental necessities for mankind: food and medicine.”¹ The way humans think about these basic needs has changed dramatically through the ages, and the impact of technology on both has been dramatic. In this course, beginning with the earliest domestication of plants and animals, we will explore these changes and examine both the positive *and* negative effects that technology has had on our diet, lifestyles, health, quality of life, and lifespan. Diet and health are intimately linked and these relationships will also be discussed throughout the semester. Some of the topics that I plan to cover are listed on the next page.

¹Dr. Hilde Binford, Department of Music, Moravian College (2004); the creator of this course.

Course Topics:



The interplay between diet and disease: an introduction to nutrition, changing demographics and lifestyles. An analysis of your diets and of diet fads;



Early history: How our human ancestors ate, the domestication of plants and animals, and the origins of medicine. Are there implications for us today?



Advances in agriculture, commercial food processing, and food preservation;



The impact of agriculture and industry on social structure and lifestyles;



The Green Revolution;



Examples of historically important diseases and epidemics;



Major advances in understanding, diagnosing, and treating diseases;



The current status of technology impacting food production, supply and quality (e.g. industrialized agriculture and genetically modified foods)



The current status of biomedical technology;



The connections between climate change, agriculture and human health; and



Predictions for the health status of humans in the future (emerging diseases, the impact of bioterrorism, etc.)

Agriculture, access to medicine, dietary customs, and public health issues vary dramatically with culture and geography; thus, we will not only focus on the United States, but rather, we will take a more global view of the status of diet and disease and consider the impact of world population growth on these two important topics.

I am always modifying and updating the content and design of this course given the rapid advancements made in technology used for agriculture, the food industry and in medicine, some aspects of the course content may be modified throughout the semester. And the issues of concern to the public seem to change pretty often as well. I invite you to provide input and feedback about things that you would like to learn more about or to tell me things that you don't like about the course.

I am honored that Dr. Binford was willing to allow me to not only utilize the concept and foundation she created for this course along with many of the resources that she developed, but also to allow this course to evolve and be taught through a different perspective -- as is likely to occur when taught by a scientist rather than a musician and historian. I value greatly the conversations she and I have had regarding this course over the past 5 ½ years.

Course objectives:



To become familiar with the history of diet and disease and the numerous technological advances which have affected food, medicine and public health;



To identify lessons learned through history and apply them to current issues related to food production and quality and to human health;



To become familiar with different viewpoints regarding diet, agricultural practices, medical treatments, and technological advances in these areas, and to be able to articulate these different positions – even if they do not necessarily reflect your own beliefs. (Of course, when asked to take a personal position on an issue related to this course, you should be able to critically evaluate the information and justify your opinions and beliefs.)



To consider the scientific, political, social, economic, historical, and geographical issues that impact diet and disease across the globe and come to appreciate the wide range of differences that can be found; and



To be able to find and evaluate information from a variety of sources and to be able to use these tools for researching topics related to this course.

Course strategies:

Approximately weekly, I will prepare a detailed lecture outline which will include a list of required and recommended readings from the books, materials on reserve or the internet. In addition, I will list discussion topics and any assignments for the week. This weekly lecture outline will be posted on Blackboard. Please note that I will occasionally update this lecture outline throughout the week (e.g. if we get out of sync with the schedule or if something relevant happens in the news), and I will use Blackboard to post announcements to the class, so you should get into the habit of checking this resource on a regular basis.

Some suggestions for success in this course:

1. **Make use of the lecture outlines to keep on track.**
2. **Come to class.** I don't formally take attendance everyday, but this is a small enough group so that I will know who shows up both physically and mentally! For this course, I won't be lecturing out of any text, and if you miss out on class discussions, you will be at a major disadvantage. (See attendance policy below.) We also routinely do group assignments in class that you will miss if you are not there.
3. **Keep up on the readings – don't wait until the night before an exam!** It is particularly useful to read the assigned material for the week before we talk about it in class. You should expect to work a minimum of four to six hours per week outside of class to be successful and to gain the most from this course.
4. **Be an active participant in discussions and other class activities.**
5. **Get help.** If you don't understand something from class, come and see me in a timely fashion. Besides taking advantage of my office hours, feel free to contact me via e-mail with questions that arise as you are doing the readings or working on course assignments.
6. **In general -- continue to refine and use good study habits.** Students who wait until the last minute to read course materials, review the class notes, or study for an exam will quickly realize that the amount of material can be overwhelming.

Course policies, procedures, and expectations:

Academic integrity: In my opinion, academic integrity is of utmost importance and cheating or plagiarism will not be tolerated. Please read the **Academic Honesty Policy** that is included in the student handbook **and** the policy that I will distribute in class. I have attached a cover sheet to my policy that each of you will sign indicating that you have read and understand the policy and implications of violating it. If you have any questions about plagiarism or other forms of academic dishonesty, please ask. Several assignments in this class will involve the use of internet resources, and it is my experience that students often do not realize that copyright violations and plagiarism policies still apply.

Attendance policy: As noted in the student handbook, students are expected to attend classes regularly. Due to the small size of this course and the emphasis on class discussions, regular attendance from each of you is essential. Frequent unexcused absences will have a negative impact on your grade for the course. I will recognize legitimate excused absences such as when students are representing the university in an official capacity (e.g. for intercollegiate athletic competition -- but not practice -- and off-campus music performances, etc.). Such activities are scheduled ahead of time; thus, I expect you to make arrangements with me ahead of time as well. In the event of an extended absence due to illness or other legitimate reasons, please notify me and a representative in the Learning Services Center as soon as possible. In the case of severe illness, accidents, etc., we will work out arrangements (e.g. for making up work, obtaining an incomplete or withdrawing from the course) on a case-by-case basis.

Students who arrive late to class disrupt the flow of the session and distract their peers. Please be prompt!

Please note that during the class periods, I will intersperse lectures, whole class and small group discussions and assignments, and occasional media presentations. The topics discussed in class can not be learned simply by doing the readings without coming to class and being an active participant. I am fond of spontaneous in-class assignments that are turned in before the end of the class period, and these can not be made up if you are absent. In other words, if you miss class, you miss out. The size of this class is relatively small, so it will be easy to see who is present and accounted for.

Assignments: I utilize a variety of types of assignments including group projects (in and out of class), short writing assignments, journals, internet-based assignments, etc. Timely completion of the work is expected; late submissions will not be accepted (i.e. not graded).

Throughout the course, it is a good idea to be aware of stories in the media that relate to topics discussed in course (science, technology, diet and nutrition, food supply, agriculture, medicine and public health issues). The internet can be a valuable resource as well, but you have to critically evaluate the content and source of the information that you find there. Often, timely stories break in the news that warrant out consideration in class and your familiarity with media coverage of the can provide the basis for class discussions. Active participation in these discussions will be noted and will have a positive effect on your final grade for the course. For certain class assignments, I will ask you to find an article or internet site on a specific topic. **To this end, I would like each of you to keep a journal throughout the semester.** It is important to contribute to this journal on a regular basis (at least one entry per week). You should also summarize your reactions to the media item, to the required readings, and to things we are covering in class and include these as entries in your journal. Details about journal format will be discussed in class.

Tests/Assignments/Grading:

	<u>% of final grade</u>
Tests ¹	45
Assignments, Quizzes, Journals, & Class Participation ²	35
Semester-long research project ³	20
	<hr/>
	100 %

¹**Tests:** Tests will be based on course materials (lecture and discussions) and assigned readings. **No make-up exams** will be administered without an official medical or registrar's excuse.

Tentative test dates:

Test #1 (15% of grade):	Tuesday, February 16 th
Test #2 (15% of grade)	Tuesday, March 30 th
Test #3 (15% of grade):	During finals week: Friday, May 7 th , 6:30 pm

²**Assignments, quizzes, journals, and class participation:**

Quizzes or assignments will be given to encourage you to keep up with the course material and to reinforce and apply concepts covered in class. Many of the assignments will involve the use of readings on reserve and/or the internet. I expect each of you to actively participate in class discussions and to complete all assignments in a timely and professional manner. There will be no make-ups for assignments or quizzes and **late work will not be accepted**.

The journal is an ongoing, semester-long assignment that will be used periodically throughout the semester in class discussions and group assignments. Participation in class discussions is expected and will be a factor in the determination of final grades.

³**Semester-long research project:**

I will be providing a list of topics for you to choose from (first come/first serve). I will design the topics such that for each category, there will be two to three ideas centered on a common theme. Each person in the pair will *individually* write a paper on one of these themes; the *pair* or group will also choose key elements from the category for preparing a poster presentation for the class. We will discuss poster formats and strategies later in the semester.

To keep you on track with this assignment, I list a series of deadlines below:

Selection of topic and pair/group:	February 18 th
Abstract for research paper due:	March 16 th
Optional draft of final paper:	April 15 th (<i>If you would like me to review and provide suggestions before the final paper is due</i>)
Final paper submitted:	April 22 nd
Posters presented in class:	April 29 th

All work submitted must be typed and papers should be free from errors of grammar and spelling. This will require your editing of drafts. I am willing to look at your drafts and make suggestions along the way. I am also available to provide guidance about researching your topic and evaluating the information that you use. Remember the academic integrity policy – plagiarism will result in a failing grade for this assignment, and if severe enough, can result in a failing grade for the course. The paper, will of course, require a list of works cited (these can be included in a bibliography at the end of the paper or as footnotes throughout the paper).