INTRODUCTION

The uniqueness of this course is the focus upon writing. There are six research writing assignments throughout the semester which include critical journal article reviews and critical thinking papers, a substantial research effort. The entire course will be conducted on-line, no formal class periods, and it is 10 weeks long.

The discipline is information technology: IT includes the use of computer and communications technology to create and manage information. More specifically IT deals with creating, storing, processing, protecting, and transmitting information to solve problems and make decisions in a variety or organizational settings.

LEARNING OBJECTIVES

Students will be introduced to the fundamentals of information technology and the way organizations use the technology. All organizations require information for problem solving and decision-making, and thus organizations adopt procedures and develop systems to acquire and organize information.

Students successfully completing this course should be capable of:

- understanding the role of information technology in modern organizations
- understanding how the Internet and electronic commerce has changed business
- distinguishing between different types of information systems
- planning and writing a formal research paper
- conducting a critical review of journal articles
- improved writing skills in the IT field.

REQUIRED TEXT


In order to keep pace with advances in information systems technology, it is necessary to routinely scan the current literature for articles dealing with relevant technology topics. Students are encouraged to seek current articles related to class assignments. Some suggested sources are:

Journal of MIS
Harvard Business Review
Only occasionally can a useful article be found in trade publications such as; Information Week, Computerworld, Business 2.0, etc.

ASSIGNMENTS – GENERAL

There are 6 written assignments and 2 quizzes in this course. Assignments submitted late (for any reason whatsoever) are downgraded 10 points – one letter grade. Assignments more than one week late will not be accepted. You will note that the requirements for these assignments change (increase) during the semester and the grade weighting value also increases proportionally.

All written assignments should be submitted in Microsoft Word format for ease of review and feedback to students. When submitted on Blackboard, assignments should be posted as an attachment. Avoid the use of special characters in the title of your papers. The 6 research papers are all due on Saturdays, no later than 11:55PM EST.

Academic journals are usually the best references to use in assignments. (Stay away from blogs unless you can determine the expertise of the blogger, and please DO NOT use WikiPedia.) The Teaching Notes are an integral part of the course syllabus.

PRECEPTOR

This course is fortunate in having a senior student Preceptor assigned to assist students in their writing and research tasks. The preceptor’s role is to provide coaching, feedback, and suggestions for improvement of student writing, but does not include grading or formal evaluation. The preceptor’s tasks include:

- conferring or coaching individual students to help them with research papers and to identify appropriate reference sources
- provide feedback on draft writings with a view toward improvement of the final product
- being available to consult with students when there are questions about writing efforts
- other questions related to the course.

Students are encouraged to engage the Preceptor’s assistance in all assignments, and are required to meet with her (schedule a specific time) for review on at least one assignment in the course. You should always contact the Preceptor with questions before asking the Professor.

CRITICAL THINKING ASSIGNMENTS
There are six research paper assignments in this course. (Be sure you understand the difference between an essay and a research paper.) The class is divided into two groups. Each Group is assigned a position (either Pro or Con) on each research paper topic; all papers are to be individual work, but collaboration and discussion amongst all students in the course is encouraged.

- **Critical Journal Article Review papers**

The assignment is to individually write a critical review of a journal article defending your position for or against the author’s tenets, assertions and conclusions. The first journal article is, “IT Doesn’t Matter” (12 years later), by Nicholas Carr. (Remember, this is a research paper assignment.) Group One will assume a position of support for the author’s tenets, a “Pro” position, for the first journal article review assignment. Group Two will assume a position contrary to the author’s tenets, a “Con” position for the first journal article review assignment.

This is a mini research paper; begin by reviewing the applicable Teaching Note and follow the guidelines for researching and writing a quality research paper. Your critical review should be 3 - 4 pages – TOTAL - in length (typed, double-spaced, 12 pt font, no cover page), including bibliography and any attachments. You must use at least 3 research sources (excluding the subject article) in your paper.

The second critical journal article is, “Is Google Making Us Stupid?”, also by author Nicholas Carr. In this assignment Group One will take a Con position and Group Two will take a Pro position in the writing of your papers. Your critical review should be 3 - 4 pages – TOTAL - in length (typed, double-spaced, 12 pt font, no cover page), including bibliography and any attachments. You must use at least 3 research sources (excluding the subject article) in your paper.

Be sure to review the Teaching Note for additional guidance on the grading of these papers.

- **Critical Thinking Papers**

Four current information technology topics are assigned for research and writing; the first is cloud computing.

*Cloud computing* can be defined as a Web-based environment where software applications, IT services and data storage are provided via the Internet. There are a number of organizations migrating to cloud computing and a number of organizations reluctant to follow this current trend. The issue to be researched is: the value of Cloud Computing. Regardless of your personal views or experience on the subject, you are assigned to take either a Pro or Con position as to the value, efficacy, cost-effectiveness, etc. of cloud computing. Again the class is divided into the same two groups: Group One assumes a Pro position and Group Two assumes a Con position for this critical thinking research effort on cloud computing. Again this is a mini research paper; begin by reviewing the guidelines for researching and writing a quality research paper. Your critical thinking paper should be 4 - 5 pages – TOTAL - in length (typed, double-spaced, 12 pt font, no cover page), including bibliography and any attachments. You must use at least 4 research sources in your paper.

*Electronic Health Records* The second critical thinking research paper topic is the value of Electronic Health Records. This is a timely and controversial topic in healthcare today. Regardless of your personal views on the subject you are assigned to take either a Pro or Con position on the value, efficacy, cost-effectiveness, etc. of electronic health records. Group One assumes a Con position on this assignment and Group Two assumes a Pro position. Your critical thinking paper should be 4 - 5 pages – TOTAL - in length (typed, double-spaced, 12 pt
font, no cover page), including bibliography and any attachments. You must use at least 4 research sources in your paper.

If you are not familiar with the healthcare field here are some research sources (only a partial list) which may be helpful:
- Health Affairs
- Journal of the American Medical Informatics Association
- International Journal of Medical Informatics
- New England Journal of Medicine
- Office of the National Coordinator for Health Information Technology
- Journal of American Medical Association
- Journal of Biomedical Informatics
- American Journal of Medicine
- Medical Care
- Health Services Research Journal
- American Journal of Public Health

*Artificial Intelligence* The third critical thinking research paper is the anticipated value of artificial intelligence as it develops today. Group One assumes a positive position (Pro) and Group Two assumes a negative position (Con). Your critical thinking paper should be 5 - 6 pages – TOTAL - in length (typed, double-spaced, 12 pt font, no cover page), including bibliography and any attachments. You must use at least 5 research sources in your paper.

*On-line Education* The fourth critical thinking research paper is the value of on-line education versus classroom education. Group One assumes a negative position on on-line education and Group Two assumes a positive position on on-line education. Your critical thinking paper should be 5 - 6 pages – TOTAL - in length (typed, double-spaced, 12 pt font, no cover page), including bibliography and any attachments. You must use at least 5 research sources in your paper.

Please don’t use Wikipedia in any of these assignments!

**RESEARCH PAPER FORMAT**

All research paper assignments should include an Abstract at the beginning (no more than one-half page long), a Conclusion at the end (no more than one-half page long), and a Reference/Bibliography section, no more than one page long after the Conclusion. Be sure to label each of these sections of your paper. Grammar, composition, spelling, sentence structure and proper citations are included in the grading of papers. If you need additional guidance with English writing, please seek assistance from the GWU Writing Center.

If this is your first research paper in a while or if you are unsure about handling reference sources and quotations, please refer to the Teaching Note on References. If there are issues of doubt during your writing process, ask the Preceptor or your instructor to be sure. Avoid plagiarism; see the Teaching Note on plagiarism. Also if you are unsure about the appropriate format, citations, references, etc. for a research paper, please consult an authoritative source such as one of the following:


At the end of each paper (after the conclusion section) the following signed statement should be printed and signed:

*I certify that I am the author of this paper.* signature_______________ student name/date.

All research papers will be submitted via the SafeAssign function on Blackboard, which verifies the originality of your paper.

**BLACKBOARD COLLABORATE SESSION**

A Blackboard Collaborate session is scheduled to meet your Professor and review the syllabus. It is Thursday September 1, at 5: - 6:PM EST. You are invited to discuss issues, assignments, offer comments, etc. with classmates and the Professor. Students are encouraged to participate. Students will need a speaker connected to their computer in order to listen to the Instructor, and can respond with comments only by texting. The entire session is recorded for later review by all students even if you cannot attend at the scheduled date/time.

Students will obtain the most value from this session by having a copy of the course syllabus (in hard copy or on screen) available for viewing and to follow along as the Professor reviews the entire course content and assignments.

**ACADEMIC INTEGRITY**

Your instructor supports and enforces every aspect of the George Washington University Code of Academic Integrity. The following is an extract from the Code of Academic Integrity:

"Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without authorization and the fabrication of information.

Examples of cheating include;
- Using unauthorized materials, information or study aids in any exercise.
- Fabrication or falsification of information.
- Plagiarism - intentionally misrepresenting another's work, failure to paraphrase.
- Forgery of academic documents.
- Facilitating academic dishonesty."

The full code is at [http://www.gwu.edu/~ntegrity/code.html](http://www.gwu.edu/~ntegrity/code.html).

**BLACKBOARD**
A Blackboard account has been established for this course. The instructor’s narrated Power Point slides, course syllabus, reference materials and all assignment feedbacks and grades will be posted on Blackboard@gwu.edu. Students are encouraged to download these materials for use. Student groups are also identified and posted on Blackboard. Students are provided timely feedback from the Professor on all research papers; look for these comments via Blackboard.

EVALUATION

There will be two quizzes; each 50 minutes long, which will cover all text assignments and PowerPoint lectures assigned during the first and second halves of the semester. If you use more than 50 minutes for a quiz your grade is penalized. Make-up quizzes will not be provided students who miss a quiz except in very special cases, and only prior to the scheduled quiz date. Each student must take these quizzes alone without any other person’s assistance. You are allowed to refer at any and all materials you wish, but the most successful students in these timed quizzes are those who prepare in advance.

The first quiz - open book - will consist of 50 true/false and multiple choice questions. About half the questions will be from the narrated PowerPoint lectures and half from the “Review Questions” and “Self-Assessment Questions” (restated in true/false and multiple choice form) which are at the end of each chapter covered in the text, Fundamentals of Information Systems, Stair & Reynolds, 8th edition, during the first half of the semester.

The Second Quiz will follow the same format (50 questions, 50 minutes) focused only on the second half of the material covered in the text and narrated PowerPoint lectures.

Student grades (A, A-, B+, B, B-, C+, C, C-, D or F) will approximately consist of the following elements:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Journal Article Review(2)</td>
<td>15% (1st = 7, 2nd = 8)</td>
</tr>
<tr>
<td>Critical Thinking, Cloud</td>
<td>10%</td>
</tr>
<tr>
<td>Critical Thinking, EHR</td>
<td>13%</td>
</tr>
<tr>
<td>Critical Thinking, AI</td>
<td>15%</td>
</tr>
<tr>
<td>Critical Thinking, On-Line education</td>
<td>17%</td>
</tr>
<tr>
<td>Quizzes (2)</td>
<td>30% (1st = 15, 2nd = 15)</td>
</tr>
</tbody>
</table>

Students are encouraged to work together, cooperatively, in all assignments and activities, except in taking quizzes. There is no “curving” in this course. And please don’t confuse “efforts with results.”

Final course grades will be calculated as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-100</td>
<td>A</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
</tr>
<tr>
<td>63-66</td>
<td>D</td>
</tr>
<tr>
<td>60-62</td>
<td>D-</td>
</tr>
<tr>
<td>59-</td>
<td>F</td>
</tr>
</tbody>
</table>
Teaching Note: 11.4.98

**PLAGIARISM**

Edward J. Cherian

Plagiarism can be defined as copying or imitating the language, ideas, and thoughts of another author and passing off the same as one's original work. Plagiarism is a form of cheating; a false assumption of ownership, or intellectual theft.

During research and writing it is important to guard against the possibility of inadvertent plagiarism by keeping notes that distinguish your work and thoughts and the thoughts and material you gather from others. You may certainly use other persons' words and thoughts in your writing, but the borrowed material must not appear to be your creation.

Suppose for example, that you want to use the material in the following passage, which appears on page 625 of an essay by Wendy Martin in the book *Columbia Literary History of the United States*.

> Some of Dickinson's most powerful poems express her firmly held conviction that life cannot be fully comprehended without an understanding of death.

If you write the following sentence without any documentation you commit plagiarism.

> Emily Dickinson strongly believed that we cannot understand life fully unless we also comprehend death.

But you may present the material if you cite your source.

> As Wendy Martin has suggested, Emily Dickinson strongly believed that we cannot understand life fully unless we also comprehend death (625).

Here the source is indicated, in accordance with the MLA style guide, by the name of the author and a page reference. The named author must also appear in the works-cited list or bibliography, which appears at the end of the paper.

In writing your paper, then, you must document everything you borrow - not only direct quotations and paraphrases but also information and ideas. Of course, common sense as well as ethics should determine what one documents. For example, you rarely need to give sources for familiar proverbs ("You can't judge a book by its cover"), or well-known quotations ("We shall overcome"), or common knowledge ("George Washington was the first president of the United States"). But you must indicate the source of any appropriated material that a reader might mistake for your own work.

If you have any doubts about whether or not you are committing plagiarism, cite your source(s).

In situations of doubt, ask your instructor if you are uncertain as to how to acknowledge sources or contributions.

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## Research Paper - Assessment Rubric

<table>
<thead>
<tr>
<th>Student Task</th>
<th>Task Weighting</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provides support for the research subject</td>
<td>20%</td>
<td>Excellent</td>
</tr>
<tr>
<td>2. Student supports his/her facts and conclusions</td>
<td>16%</td>
<td>Good</td>
</tr>
<tr>
<td>3. Correct use of grammar, punctuation, sentence structure, spelling</td>
<td>16%</td>
<td>Adequate</td>
</tr>
<tr>
<td>4. Uses strong and appropriate number of research references</td>
<td>13%</td>
<td>Poor</td>
</tr>
<tr>
<td>5. Uses proper citations and references in paper</td>
<td>10%</td>
<td>Unacceptable</td>
</tr>
<tr>
<td>6. Has a logical paper organization and structure</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>7. Minimum repeat of reference material details</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>8. Paper focused on the subject</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>9. Paper appropriate specification length</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>
A critical review of a journal article or a critical thinking paper on a contemporary information technology issue is a valuable assignment in the study of information technology. Students are asked to write a critical review of a significant article, or IT issue, chosen from the current scholarly literature in information technology, often of a contemporary issue or controversy. Students are required to defend a position for or against the author’s tenets, assertions and conclusions, or the technology issue assigned.

This critical review assignment could be short and focused only on the article or issue under review. Students are expected to prepare for this task by researching the subject, seeking other authors’ views on the issues, and by searching and reviewing other pertinent materials. This is basically a small research paper assignment; also be sure to review the Assessment Rubric for additional guidance and grading of these papers.

1) General Guidance

The three most important things in writing a critical journal article review or critical thinking paper are: 1) it is a research paper not an essay, 2) reframe from including your own opinions and experiences, and 3) limit the amount of material you repeat from the subject journal article or references. Extensive repetition of the subject article or referenced materials has no value added for your paper. Assume the reader has read the article; it is your presentation and analysis of research references that is your way of developing a critical review.

Print media are the most reliable and reputable sources for your research. Students are encouraged to seek these research materials first. If you focus your research on Web sites, try to again stay with print media sources; all the reputable ones have Web sites. Top level domain sites, e.g. .gov and .edu are the best; .com sites are inappropriate and the least reliable, but there are some good exceptions. Please stay away from blogs and Wikipedia.

2) Format

Begin with the Title of your paper and your position; Pro or Con. In a short paper, 3 - 6 pages, a separate title page is unnecessary. The title, student’s name, course, date, etc. can all be placed at the top of the first page of the paper.

An Abstract of your paper is required at the beginning. Limit the Abstract to half a page. It should be written after the rest of the paper is completed. It should briefly summarize your paper and include, perhaps, a hypothesis or overall question, results, and one important finding or conclusion.

An introduction is not necessary in a short research paper, but may be included in the beginning of the body of the paper if you wish.

The main body of the paper can be organized in many ways:

- Describe the problem, issue(s), or hypothesis, the intent of the paper
- Present data and /or findings
- Present the views of experts from research sources – the sources cited in your bibliography, reference or works cited section
Subheadings where appropriate, like:

A. xxxx
B. yyy
C. zzz
D.

are very useful in that they help to organize your paper and should lead to where you are
taking the reader. Try to divide your paper, paragraph by paragraph, based on the relevant research sources cited.

A Conclusion is required and is the part of your paper where you can add your opinion(s) about the research
you offer. The Conclusion is your analysis/logic of the facts/data/findings presented above, based on the
evidence you present in the body of your paper. **Do not** introduce any new data or findings in this section.
Personal experiences should *never* be included in a research paper. One-half page should be sufficient.

Finally a Bibliography or References section includes all the research sources you used to
construct the paper and are cited in the body of the paper. Be sure to use one of the
accepted/approved citation methods noted in the syllabus – and be consistent in the form used. If there are
multiple authors (co-authors) in a reference spell out all the author’s names.

3) **Do’s and Don’ts**

**Do not** make unsupported assertions. This is the most common error made in research papers. **Do not** write;
“most CIOs agree”, “several studies show”, “it is well known”. Be specific in referring to research sources.
Where possible go directly to the original sources, don’t use secondary sources to get facts since these sources
may interpret incorrectly.

Do not include personal experiences or personal opinions (unless you are a qualified expert in
the area under study) in the paper until you arrive at the Conclusion section where it is
appropriate to summarize findings and include your judgment.

(If you consider yourself an expert in the area under study, please tell your professor, submit a resume with
publications and other references noting your expertise, and you may qualify to be one of the references
required for this paper.)