

NTR 338W Spring 2011 #54495  
Issues in Nutrition and Health  
T & Th 11-12:30, GEA 110

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**Meeting times**—TTh 11-12:30 for lecture, discussion, presentations and/or small group meetings. During the semester, an additional 4-8 hours of required one on one meetings outside of class time will be scheduled.

**Prerequisites** --all with grades of at least C—NTR 312, NTR 326/126L, physiology (BIO 325 and 365S or 365R&S or other approved sequence, CH 369 (or 339K&L), and an approved statistics course. Exceptions must be approved.

**Required Text:** Writing Papers in the Biological Sciences (**WPBS**), Third Edition (humming bird 20001) or Fourth Edition (frog 2006). Victoria E. McMillan. Bedford Books: Boston, ISBN 0312440839.

**Other Resources**

- **Primary research literature**—many available through UT on-line including: Medline, Academic Search Premier, Annual Reviews, Journal of the American Dietetics Association, Journal of the American Society for Clinical Nutrition, Journal of Nutrition, etc.
- **SciLibrary--Modern Nutrition in Health and Disease**, 10th Ed, Shils, et al. Lippincott. 2006
- **SciLibrary--Nutrition in the Prevention and Treatment of Disease Coulston**
- Cliff's Quick Review of Writing Grammar and Style by Jean Eggenschwiler. Available from Amazon.com for <\$10. Good for basics.

**Learning Objectives**

- \*Distinguish between the FIVE primary types of research papers
- \*Identify and appreciate the differences between original, primary, peer-reviewed research publications, up-to-date review articles, and secondary literature sources
- \*Conduct a literature search on a current issue in **HUMAN** nutritional science
- \*Read, comprehend, and critically evaluate methods including statistical tests, and results of original research
- \*Write review papers with the following elements: abstract (summary of each section of the paper), introduction/review of literature /statement of problem, methods (not typical but can describe the extent and limitations of the literature search), body (thumbnail sketches or summaries of the original research papers that capture the results leading to the conclusion and the issues resolved in the discussion section), discussion or speculation, summary/conclusion, and references

\*Use powerpoint to prepare posters and oral presentations that capture the SCIENTIFIC METHODS AND DATA supporting current hypotheses in human nutrition  
 \*Practice peer editing, critique, and summarization skills

### Course Flags

*This course carries the Independent Inquiry flag. Independent Inquiry courses are designed to engage you in the process of inquiry over the course of a semester, providing you with the opportunity for independent investigation of a question, problem, or project related to your major. You should therefore expect a substantial portion of your grade to come from the independent investigation and presentation of your own work.*

*This course carries the Writing Flag. Writing Flag courses are designed to give students experience with writing in an academic discipline. In this class, you can expect to write regularly during the semester, complete substantial writing projects, and receive feedback from your instructor to help you improve your writing. You will also have the opportunity to revise one or more assignments, and to read and discuss your peers' work. You should therefore expect a substantial portion of your grade to come from your written work.*

### Policy Statements

This class requires an extensive time commitment for on-line literature search, writing, reading, class participation and presentations. You should anticipate spending at least 9 hours per week, and sometimes many more, in reading and writing for this course.

Class attendance and participation in activities and discussions are a part of your grade in this class. Your Dean will be notified of poor attendance or performance at mid-term, March 4. Late assignments will be penalized if prior arrangements have not been made.

Plagiarism--passing off as your own work another's creation, phrasing, analysis, concept or conclusion--is a form of academic dishonesty that will not be tolerated in this class. Plagiarism may take the form of submitting a paper you wrote for another class or superficially paraphrasing information from other sources. Document all sources, but avoid direct quotes and never cite a source that you have not read! Be sure you understand the difference between primary and secondary sources. For example, background citations in the introduction of a research article are NOT primary sources; you should check the original reference. The penalty for academic dishonesty is a grade of 0 with no option for resubmission.

The last day to add/drop through departments is Jan 21. The last day to drop without possible academic penalty is March 28. These deadlines are enforced by the College of Natural Sciences.

UT-Austin provides accommodations for qualified students with disabilities. Please provide documentation prior to the 4<sup>th</sup> class day from the Dean of Students Office, 471-6259 or 471-6441.

**Please DO NOT bring food or drink into the classroom.** You will be asked to leave the class if you engage in distracting activities such as eating, sleeping, talking, reading non-class materials, checking phone or beeper messages, texting and so forth.

Web-based Class Sites—UT password-protected class sites include class email rosters. If you do not want your name included in these electronic class rosters, you must restrict your directory information in the Office of the Registrar, MAI Bldg, Rm 1. Please remember that the official form of communication at UT-Austin is email. Students may direct complaints and grievances to the Ombudsman.

**Evaluation**—There are a total of 100 marks for the course. A=90, A-=87, B+= 84, B=80 and so forth. Evaluations of student writing are inherently subjective and will emphasize comprehension of the research literature, clear communication of methods and results, and critical analysis.

### Schedule

Date	Writing Papers in BioSci	Class Assignment/Discussion	Due	Pt
1/18	Intro—How and Why...  Chpt 5	<b>Introduction to course</b> — visualizing the review process types of research and statistical analysis Emphasis for 338W is Translational research in <u>HUMAN</u> nutrition. <b>Note: <u>drug studies, genetic analyses, athletic performance, and so forth are NOT appropriate topics for 338W.</u></b> <b>Assignment (A)-1a</b> --Writing a review paper <b>A-1b</b> —READ, actively outline a chapter, and come prepared to present/discuss your area of interest	1/20 1/20	1 1
1/20	          <b>Chpt 1—Locating and Using... Chpt 6-- Documenting</b>	<b>Discussion—A-1a</b> <b>Types of review papers</b> —state-of-the-art, historical, comparison-of-perspectives, synthesis-of-two-fields, theoretical or model-building <b>Components of Review Papers—</b> <b>Intro/Background</b> , methods (not typical), Body (subtopics), Discussion /arguments, Conclusions, References <b>Discussion A-1b—Review paper topics</b> <b>A-2</b> —locating and referencing literature, plagiarism, timing and focus <b>Activity/UTNET-CAT</b> , on-line resources, interlibrary requests, Medline, Academic Search Premier, other tools <b>Search</b> all “Annual Reviews” for your area of interest	1/25  1/25	1  1
1/25		<b>Discussion—A-2/</b> locating and referencing literature, plagiarism, timing and focus		

Date	Writing Papers in BioSci	Class Assignment/Discussion	Due	Pt
	<b>Chpt 9—Note taking</b>	<b>A-3A—Topic selection &amp; search</b> <b>A-3B—Purpose Paragraph/Outline</b> <b>Assignment 4—Purpose Paragraph</b> <b>Assignment 5-- First Paper Complete</b> <b>Draft Deadline</b>	1/27 1/27 2/1 <b>2/15</b>	1 1  12
1/27		<b>Discussion--A-3A--Topic selection; literature search; compare methods for 3 types of studies—epidemiology, clinical, experimental</b> <b>Discussion--A3 B—First Paper Purpose Paragraph (story board, outline, thesis statement)</b>		
2/1	<b>Chpt 5 Writing...</b>	<b>A-4-- Purpose Paragraph/Storyboard</b> <b>WPBS--Thinking through the writing process</b>	2/3	3
2/3		<b>A-4—REVISED Purpose Paragraph</b>		
2/8 & 10		<i>Individual appointments A-4 and 5</i>		
2/15 & 17		<b><u>A-5 First Paper Draft Deadline—appointments</u></b>		
2/22	<b>Chpt 10—Presentations</b> <b>Chpt 4—Res paper, Chpt 2--Data, Chpt 3—Tables/figures</b> <b>Chpt 8—Final draft, --Chpt 7—Drafting/revising</b>	<b>A-6—Presentations and proposals</b> <b>A-7 Team project--Poster (Powerpoint composite), demonstration, and/or interactive presentation and emphasizing critical review and analysis of current issue in Human Nutritional Science</b> <b>A-8—Research papers, methods, data, tables and figures</b> <b>A-9—Drafting and revising</b>	3/8 3/8  3/8 3/31 3/31	1 19  1  1
2/24		<b>Topic discussion for A-7</b>		
3/1		<b>Team work for A-7</b> <b><u>A-5 First Paper Final Deadline</u></b> <b>A-10 Response to Paper 1 Edit</b> <b>A-11 <b>Second paper</b></b>	3/31 3/31	3 15
3/4	Notice	Mid semester reports due—check deadline for drops without possible academic penalty		
3/3		A-7 discussion		
3/8 & 10		Draft Poster presentations and class feedback		
3/22		<i>Draft Poster presentations &amp; class feedback</i>		
3/24		<i>Draft Poster presentations &amp; class feedback</i>		
3/29		<b><i>A-7 Corrected posters due and displayed on GEA 3<sup>rd</sup> floor</i></b>		
3/31		<b><u>A-10 and A-11 Second Paper DEADLINE</u></b> <b>A-12a Purpose paragraph for Third Paper</b>	4/5	5

Date	Writing Papers in BioSci	Class Assignment/Discussion	Due	Pt
		A-12B <b>Third Paper</b> A-13 Peer Editing	5/5 5/5	25 5
4/5		Paper 3 purpose paragraph discussion		
4/7		Paper 3 final purpose paragraph		
4/12,14, 19, 21		Paper 3 individual meetings		
4/26, 28				
5/3		A-14 Abstract/Executive summary	5/5	5
5/5		Last class day. All assignments DUE. No penalty deadline extension until May 12.		
5/12	2-5pm	Scheduled Final Exam		100 pts

Date \_\_\_\_\_ Name \_\_\_\_\_ 1+1 pts

**NTR 338W Assignment-1a&b**

A-1a--Read WPBS Chpt 5: writing a review paper and answer the questions below.

A-1b 0.1—Identify a broad area of interest for your first paper. Link it to a chapter in Shils or Coulston. READ and outline the chapter.

A-1b 0.2—**Search** all “Annual Reviews” for your topic of interest and create a long list of possible subtopics or keywords.

1. Describe 5 types of review papers.
2. State the target audience and broad goal of a review writer.
3. Give the 4 hallmarks of a suitable topic.
4. Explain the process of narrowing a research area to a manageable topic.
5. A scientific review paper **must** focus on \_\_\_\_\_ sources, specifically, the gold standard \_\_\_\_\_.
6. Secondary sources such as \_\_\_\_\_ should be used for \_\_\_\_\_, and cited \_\_\_\_\_, if at all.
7. Before beginning a literature search, it is important to do \_\_\_\_\_ reading from sources such as:\_\_\_\_\_.
- 8. Name and describe the major sections of a) a review paper and b) a research paper. Name the two distinctive sections of a research paper that are not in a review paper.**
9. Do you label the body of a review paper? If not, how do you recognize it?
10. If a review paper doesn't have a table of contents, where would you place the “outline?”
11. In what form and order are references listed?
12. What is the unspoken rule about quotations in scientific writing?
13. Why is this conclusion inadequate? “...more work needs to be done to...”
14. Describe the process of developing a “comparison table” to summarize major experimental details and results. What is in a “row?” ...a column?

Date \_\_\_\_\_ Name \_\_\_\_\_ /1 pt

### **NTR 338W Assignment-2**

(1) Answer the following questions from WPBS Chpt 1,6: locating/using the biological literature; documenting the paper

(2) On line: Am J Clin Ntr—find and print out instructions to authors. ***This is the format you will use for your papers. 2 pt penalty for forgetting!***

1. Distinguish between primary and secondary sources.
2. The major indexing tool for medical and health related literature is \_\_\_\_\_.
3. Describe 3 other useful indexes.
4. What cautions are important for internet posted information?
5. Name two important ways to access information in data bases.
6. What is meant by a) keeping careful records, b) allowing ample time?
7. Plan on reading important papers \_\_\_\_\_ times. For the first reading, focus on the \_\_\_\_\_ to quickly determine if the paper is useful to you. The second time you read a paper, you should pay careful attention to: \_\_\_\_\_ and \_\_\_\_\_ sections. On the third go round, you will need specialized information from which section?
8. Define plagiarism. What form of plagiarism is the most common in student writing? How can you avoid making this error?
9. When should you photocopy an article? When should you note a complete reference?
10. What goes between the ( ) of the following passage? Willet ( ) obtained life-style, diet and health measures for 35,000 nurses and computed the relative risk of heart disease in smokers compared to non-smokers.
11. Describe criteria for reference placement, and order of references.
12. Where can you find the AJCN format that is the preferred reference style for 338W? How is it different from the Harvard system?
13. How would you cite Shills' book if you used it in your paper?
14. What is the rule about using quoted material in scientific review article?
15. Give the correct abbreviation for grams, hours, days, liter, number
16. Briefly summarize major sections of manuscripts and rules for preparation.
17. Articulate the value of having a friend listen while you storyboard your paper. How can you do this for yourself if you don't have that good a friend?
18. Does using MS Word Professional with grammar and spell check eliminate the need for YOU or a trusted friend to carefully proofread your document?

Due \_\_\_\_\_ Name \_\_\_\_\_ /2 pts

### **NTR 338W Assignment 3 A&B**

#### **Part A--Selecting a topic and reviewing background literature**

#### **Part B—"Storyboarding"—developing a purpose/thesis/outline paragraph**

Read WPBS, Chpt 9 pp 161-2 and Chpt 10, pp 170-84

#### **Part A—Introduction to the review paper**

- 1) Articulate the broad topic area and its importance to nutritional science
- 2) Identify sources and complete background reading, from most general to more specific—example--311 text, Shil's Modern Nutrition, Present Knowledge in Nutrition, Nutrition Reviews, Annual Review of Nutrition, American Journal of Clinical Nutrition REVIEW paper
- 3) Develop a cartoon or figure to guide the reader through your written summary of background literature. Both should stand alone. Think of this as what the reader needs to know to understand your paper. "Remind" the reader of key discoveries, research approaches and the commonly accepted scientific base of the topic.
- 4) Wrap-up by linking the background information, what is commonly known or accepted, to what is not known or generally accepted. Grants are given for research into the unknown or into areas of conflicting information and controversy.

#### **Part B—Elements of an effective "purpose paragraph"**

- 1) Identify and write out your narrow, focused research question.
- 2) List 5-10 key words for your question and conduct a literature search using appropriate indices for the last 5 years. For some topics, or for a historical perspective, a longer time frame is appropriate. Be sure that the papers you identify "fit" together to address 2, or at most 3 issues around a **very narrow** research question. Aim for 10-15 high quality papers or at least 5 per chunk.
- 3) Summarize key methodological approaches and findings in a summary/evidence/comparison table that organizes information for each paper. When appropriate, subdivide your papers and your evidence table into 2-3 piles/chunks/subheadings by approach, findings, subjects, procedure/laboratory.

Your goal is to create a row that captures the key information for each paper, such as **methods** (sample column headings--subjects, n/gender/BMI, exclusion criteria, time line) key **data/results** (sample column headings—Plasma Cholesterol, Plasma triglyceride, a-lipoprotein, ApoB100 binding), and **statistical significance** (difference between means, linked to footnotes that clearly identify the statistical test used, sample \*\*\*statistically significant,  $p \leq 0.05$  by t-test).

Each row gives you the information you need to write the thumbnail sketches or summaries of each paper that make up the body of your paper.

The discussion points-- issues/short-comings/ comparisons/controversies/ arguments between papers—arise from a comparison of each row items down

individual columns. Example—plasma cholesterol, serum cholesterol, HDL by dextran precipitation, LDL by difference. Discussion points are not merely DIFFERENCES, but, rather, differences that matter—issues you had to resolve to arrive at your conclusion.

- 4) The conclusion of your review paper may be viewed simplistically as a weighted average of all of the rows in a column. The weighting is summarized in your discussion as logical development of reasons to ignore or include the findings of a particular paper.
- 5) Write a purpose paragraph/thesis statement/complete outline for your paper with the following elements.
  - a. 1 sentence-- broad area/focus and importance to human nutrition
  - b. 2-3 sentences—specific research question and subheadings--one for EACH key point/"chunk" with a list of research articles included in each chunk. Using "tags" and reference numbers for the papers is helpful to the reader.
  - c. 1 sentence—arguments/discussion points/controversies you must settle to bring the different papers to a conclusion, and, possibly, your insight as to additional experiments that will clarify the issues
  - d. 1 sentence—conclusion, the bottom line supported by the evidence at hand
- 6) Use the information from the purpose paragraph to "zoom in" on your area cartoon created above and visualize your paper as a story board/ road map, visual summary/flow diagram/organizational chart for class presentation that links the current knowledge with ongoing research approaches and controversies. Bring story board and a hand-out of your statement of purpose and references for class presentation and discussion.

Example of a purpose paragraph from Hellerstein MK, Schwarz J-M, Neese RA. Regulation of hepatic de novo lipogenesis in humans *Annu Rev Nutr* 1996;16:523-57. (**NOTE:** Most science editors prefer to avoid the use of first person. Are there other ways this paragraph could be made more straightforward and clear?)

"Experimental findings in humans have not supported so simple a model of the energy economy or of the functions of DNL, however. In this review, we discuss the history of ideas about DNL, the experimental methods available for measuring DNL, and the evidence both indirect and direct concerning the regulation and quantitative importance of DNL in the energy economy. We conclude with speculations on other potential functions of DNL in cellular and organismal homeostasis. The methods by which DNL is measured are discussed in detail, with emphasis on recent methodologic advances that allow accurate measurements in humans. Our hope is to convince the reader that for DNL, as is so often the case in experimental biology, expectations concerning biological functions have not been borne out when tested directly, and that the result is a more interesting, though incompletely understood, regulatory model."

Due _____	Name _____	_____/3 pt
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## NTR 338W Assignment 4

### Thinking through the writing process

1. Review WPBS Chpt 5: purpose or thesis statement  
Chpt 7, pp 132-35: effective paragraphs
2. Remember that your purpose paragraph must cover all the sections of a review paper, i.e.:
  - Title
  - Introduction
    - a) Hook--importance of issue/area to nutritional science
    - b) Background--brief, but clear and adequately referenced, scientific presentation of research leading to the CURRENT question  
**This section MUST include a visual overview that illustrates the central thought (pathway, diagram, cartoon, time line) for the background.**
    - c) Purpose/thesis/outline paragraph  
**This paragraph MUST include 1) wrap up of background, 2) specific research question, 3) literature to be reviewed by subheading, 4) discussion/arguments, and 5) conclusion.**
  - Body
    - Subheadings in same order as the statement of purpose
    - Concise but explicit summaries or "thumbnail sketches" for each paper
  - Discussion
    - In same order as purpose paragraph
    - Compares, contrasts, criticizes and integrates the research evidence  
**This section MUST include a "comparison table" that organizes and summarizes the key information about each research article. It should include a) all information described in the body of the paper and b) support for the "arguments" you present in the discussion.**
  - Conclusion
    - Clear, specific "bottom line," supported by the literature
  - References
    - Current, high quality references from primary peer reviewed literature
3. Check that your purpose paragraph includes each component described above
4. Set a time to meet face to face with your writing buddy. Ask your buddy to a) read your paragraph out loud to you, b) "translate" what she thinks you are trying to say, c) respond to your clarifications, and d) make recommendations for a clearer, more logical paragraph.
5. Indicate how you modified your paragraph to bring it in line with EACH of your buddy's recommendations.
6. Submit copies your original and revised outlines/storyboards.

Due \_\_\_\_\_ Name \_\_\_\_\_ /12 pts

## NTR 338W Assignment 5

### First Paper ~ 5 pages, ~10 Good primary research references

Title \_\_\_\_\_

Abstract (**Don't write one!**)

\*\*Introduction--hook, significance/importance of topic, review of literature, includes **cartoon** or visual aid

\*\*Statement of Purpose--clear, meets outline function, identifies general area of research and sub-topics of literature review, discussion points, conclusion/bottom line

\*\*Body (not identified as such but shown as subheadings or "chunks" by technique/approach/time)--insightful thumbnail sketches of papers, including subjects, timeline, diet/experimental protocol, assay methods, key data measures, and statistical tests

\*\* Discussion—compares, contrasts, criticizes research papers; includes a **table** summarizing major findings and differences; logically organized; all statements supported by literature

\*\*Summary/conclusion--specific, logical, clear, supported by data/research

\*\*References--focused/quality/validity/timeliness/format;

\*\*Writing Mechanics—proofreading, style, grammar, clarity, organization, coherence

**\*\*\*Submit final draft in folder with a) this form, b) marked up first draft, and c) copies of all references. \*\*\***

The First Paper serves as an introduction to the research and writing process.

Suggested steps:

- (1) identify a topic of interest; phrase question to be answered
- (2) read background information and identify key words and authors
- (3) narrow the focus of the paper to a single research question
- (4) conduct a literature search and summarize articles in a table
- (5) draft the statement of purpose including major points of comparison/discussion
- (6) story board or discuss the paper with a buddy
- (7) write the introduction, body and discussion sections in that order
- (8) carefully proof your manuscript
- (9) revise to improve the coherence and accuracy of the paper

Carefully proof the manuscript for correct spelling, acceptable grammar, scientific style, paragraph development, clear use of pronouns, appropriate word choice, and so forth. Style and reference format is that given in Instructions to Authors of the American Journal of Clinical Nutrition.

Emphasis should be placed on primary peer reviewed reports of original research published in high impact scientific journals. Review articles, text type readings, newsletters, Scientific American, and so forth are not appropriate references. In general, papers should be more recent than 1995 unless they are included for historical significance.

**NTR 338W EVALUATION POINTS**

PAPER \_\_\_\_\_ Name \_\_\_\_\_ / \_\_\_\_\_ pts

**Scale:** <60% *unacceptable*..... 70% **C**-..... 80% **B**-..... 90% **A**-..... 100 **A+**.....**Title--** informative, yet not too long nor too briefSuggestions**Introduction**—includes “hook,” area/significance of the topic, **review** of scientific background & prior research approaches & findings, integrative **cartoon or diagram**Suggestions**Purpose/outline paragraph**—includes general arena and specific research question, clearly identified chunks/subheadings/experimental approaches, memorable “tags” for chunks or papers, logical “arguments” or discussion points leading to **your** interpretation/overview, and a clear conclusionSuggestions**Body**--organized by subheadings identified in the purpose paragraph, made up of insightful thumbnail sketches of groups of papers with similar experimental approachSuggestions**Discussion**—includes introductory paragraph stating research question and major points to be compared, contrasted, or criticized; table summarizing methods, results and significance of all papers; a logical and clear conclusion/bottom lineSuggestions**Summary/conclusion**—succinct answer to the specific research questionSuggestions**References/AJCN format**— representative, applicable, up to date, scientifically meritorious first tier, primary peer reviewed literature; representative of the current demonstrate effective search techniques and scientific command of the topicSuggestions**Writing mechanics--**

- a) carefully proofread (**prf**)
- b) stylistically and grammatically correct (**style**)
- c) interesting sentences with varying form and complexity (**sent**)
- d) clear, coherent, succinct , logical, well organized (**clarity**)
- e) language/word choice appropriate for meaning and for audience (**wc**)
- f) succinct paragraphs (**¶**) with introductory statement/body/conclusion that flow together with links and connectors

Due \_\_\_\_\_ Name \_\_\_\_\_ /1 pt

**NTR 338W Assignment 6**

**Read WPBS Chpt 10: presentations and other forms of writing**  
**Review WPBS Chpt 3: using tables and figures**

1. What is the best way to prepare for a talk/presentation?
2. List the key elements of a presentation. (EX: "hook")
3. What is the appropriate use of "notes" during a presentation?
4. What steps help ensure that you stay within time limits?
5. Describe an "effective" slide or visual aid.
6. What is the best way to respond to a question if you aren't sure of an answer?
7. What key word best describes a poster presentation?
8. Describe the 5 major sections of a research proposal (not the reference page).
9. What qualities make a letter of application compelling to a prospective employer?
10. Give some general guidelines for the preparation of a resume.

Due \_\_\_\_\_ Name \_\_\_\_\_ /19 pt

**NTR 338W**

**Assignment 7—Poster Presentation, Interaction, Demonstration, Visual and Oral Methods**

**Emphasis--Critical evaluation of scientific information**

Poster should include author/institution, title, abstract with key references, methods, data in effective tables and figures created in powerpoint, issues/discussion points, conclusion.

Create it as a collage of powerpoint slides so that you can easily make changes if needed.

Quality

- \_\_\_\_\_ Maintains interest
- \_\_\_\_\_ Inspires questions
- \_\_\_\_\_ Validity and logic of overall approach
- \_\_\_\_\_ Cites relevant science/ papers
- \_\_\_\_\_ reminds you of what you know
- \_\_\_\_\_ inspires confidence, insight
- \_\_\_\_\_ did not shy away from details
- \_\_\_\_\_ flow diagram
- \_\_\_\_\_ clearly organized, uncluttered
- \_\_\_\_\_ visually appealing
- \_\_\_\_\_ sufficient/not excessive detail

Overall

- \_\_\_\_\_ pleasing tone of voice
- \_\_\_\_\_ absence of distracting mannerisms
- \_\_\_\_\_ scientific objectivity
- \_\_\_\_\_ judicious use of color/animation/sound

Due \_\_\_\_\_ Name \_\_\_\_\_ /1 pt

**NTR 338W Assignment 8**

**WPBS Chpt 4,2 & 3:**

**writing a research paper, handling data, using tables and figures**

**Important--Review statistical methods used in your papers!**

1. Identify and describe each major section of a research paper.
2. Describe the organizational approach suggested by the text for writing a thesis or major research paper.
3. Give some general rules for the title of a paper.
4. An abstract is typically a paragraph that summarizes:
5. Describe 3 elements of an introduction. What is meant by proceeding from the general to the specific? Give some guidelines for the literature review.
6. The level of detail needed in the Materials and Methods section of a research paper is sufficient to allow the experiment to be \_\_\_\_\_. Give typical subheadings of a methods section.
7. Write a sentence in the passive and active voice and in present and past tense.
8. Is it appropriate to interpret data in a results section? Give guidelines for organizing a results section.
9. What is meant by having the text and the tables/figures "stand alone" in a results section?
10. What is the aim of a discussion section?
11. Compare the "data" in a research paper to those in a review paper.
12. What is meant by: continuous and discontinuous values  
independent and dependent variable  
mean, median, range, standard deviation, standard error of the mean  
coefficient of variation  
t-test, z-test, analysis of variance, Kruskal-Wallis test  
correlation analysis, regression analysis  
cohort, case/control, randomized  
statistically significant, relative risk
13. Describe an effective table.
14. Give some guidelines for the best use of a graph or figure.

Due \_\_\_\_\_ Name \_\_\_\_\_ /1 pt

**NTR 338W Assignment 9**

Read WPBS Chpt 7: drafting and revising

Review Chpt 3: tables/figures

Answer the questions below.

1. Good writing is generally the product of careful \_\_\_\_\_ or \_\_\_\_\_ in which you evaluate your early attempts at \_\_\_\_\_ and \_\_\_\_\_ your ideas.
2. What is the purpose of brainstorming or storyboarding a topic?
3. At what point should you consider the paper as a whole, checking the overall content, logic, balance, organization, coherence and consistency?
4. Does using MS Word Professional with grammar and spell check eliminate the need for YOU or a trusted friend to carefully proofread your document?
5. What page of the text contains a checklist of questions you should address before submitting any document?
6. Describe the structure of a paragraph.
7. What techniques help you integrate paragraphs into sections? (pg 134)
8. Why are paragraphs made of short choppy sentences distracting?
9. Give an example of a malapropism.  
Write sample sentences with the following pairs of words: principal/principle, affect/effect, comprise/constitute, that/which, it's/its
10. Write INCORRECT sentences to illustrate: wordiness, slang/jargon, misplaced modifiers, vague use of this/it/that, ambiguity, subject/verb disagreement, lack of parallel construction, redundancy.
11. What verb tense (present/past), person (first/second/third), and voice (active/passive) are typical of scientific writing?
12. Write INCORRECT sentences to illustrate: comma splice (on its own and with a conjunctive adverb such as however), use of semicolon in series with internal commas, use of parentheses

Due _____	Name _____	_____/3 pts
<b>NTR 338W--ASSIGNMENT 10—SUBMIT WITH PAPER 2</b>		

In preparing the paper 2 did you—

- Improve selection focus, quality and number papers to give 15 GOOD ones?
- Extensively revise and rewrite
  - incorporate suggestions/comments throughout your document
  - work on logic and organization of the topic
  - create clear, coherent, succinct paragraphs with good action and flow
  - demonstrate sound command of the science
  - use links, connectors, cartoons, “tags” and overviews to hold the reader’s attention
- Discuss any unclear comments with me?

**Title--** informative, yet not too long nor too brief?

**Introduction—**

- “hook” reader’s attention and clearly link to human nutrition
- review pertinent background research approaches and results—with references
- include a unifying **cartoon or diagram** to clarify research area and focus

**Statement of purpose—**outlines the entire paper

- Wrap up background and lead into the research question;
- Clarify the experimental approach represented by each chunk or subheading for groups of papers
- Use memorable “tag” and reference number and list papers within each subheading
- Identify/briefly list differences between papers that had to be resolved to arrive at your conclusion or interpretation; ex: different/newer methods, health status of subjects, tests of statistical significance, conflicting data
- Conclude with a clear and succinct “best answer” to the research question

**Body--**not identified as such, but broken into subheadings identical to and in the same order as in the statement of purpose

- Made up of insightful thumbnail sketches of each papers that include important methods and results and statistical tests of significance
- Highlight details relevant to the discussion points
- For longer review papers, consider an introductory paragraph for each subheading followed by a paragraph of results/highlights

**Discussion**— issues or differences between papers relevant to your conclusion

- Begin with an introductory paragraph reminding reader of the focus, i.e., research question
- Include a comparison table summarizing specific methods, experimental protocol, detailed results, and tests of significance
- Compare, contrast, evaluate, criticize, and highlight aspects of papers; vertical use of rows in comparison table rather than horizontal as in the Body
- Do not repeat data information already presented in the Body
- Logically and clearly develop arguments for each issue that support your conclusion/bottom line

 **Summary/conclusion**—clearly, succinctly and logically summarizes the research to date

- Avoid introducing new arguments or literature
- Avoids the lame phrase about more research being needed; describes the ideal experiment that would resolve the issue

 **References**—cited with AJCN format and copies included

- Adequate in number, representative of the literature and applicable to the question
- From first tier, primary peer reviewed literature—original research
- Up to date, scientifically meritorious in terms of approach, methodology and statistical analysis

 **Writing Mechanics**

- Carefully proof read
- Stylistically and grammatically correct
  - word choice (wc), sentence structure (ss), subject verb agreement (s/v), verb tense (vt), spelling (sp)
- Clear, coherent, logical, and well organized
- Audience appropriate

Due \_\_\_\_\_ Name \_\_\_\_\_ /15 pts

## NTR 338W Assignment 11

### Second Paper—Expansion and Revision of First Paper

**No more than 5 pages; 10-15 focused primary research references**

***\*\*\*Submit final manuscript in a folder with a) this form, b) edited First paper and evaluation paperwork, c) a letter\* (see A 9) to me detailing the changes you made to your document in response to issues I raised, and d) copies of all references.***

\_\_\_\_\_ Title (clear, succinct, descriptive)

\_\_\_\_\_ Abstract—NOT needed for this paper

\_\_\_\_\_ Introduction--hook, significance/importance of topic, thoroughly referenced and knowledgeable review of RESEARCH literature on the issue

\_\_\_\_\_ cartoon or visual aid

\_\_\_\_\_ Statement of Purpose--clear, meets outline function, identifies general area of research and specific research question/**issue**, sub-topics of literature review, discussion points or arguments in support of your integrative insight, conclusion/bottom line

\_\_\_\_\_ Body—a horizontal summation of information in the comparison table

It is not identified as such but subheadings are shown. The body is made up of insightful thumbnail sketches of the experimental approach that each subgroup of papers used to approach the research question, including subjects; timeline; diet/experimental protocol; assay methods and key data such as means, sd, rang, and; statistical significance of difference between groups.

\_\_\_\_\_ Summary/comparison table--major methods/approaches and KEY data, organized; under subheadings corresponding to the subgroup designations for the body

\_\_\_\_\_ Discussion—a vertical examination of the subgroups by experimental approach and major findings. The discussion does NOT repeat the body; it compares, contrasts, and criticizes the research papers. Its purpose is to arrive at an integrated, insightful overview of the “answer” to the research question.

\_\_\_\_\_ Summary/conclusion--specific, logical, clear, supported by data/research

\_\_\_\_\_ References—scientific merit, applicable to topic, timeliness, adequacy of approach and techniques, properly cited, copies included in folder

Due \_\_\_\_\_ Name \_\_\_\_\_ /5 pt

**NTR 338W Assignment 12a**  
**Thinking through the writing process**

1. Review WPBS Chpt 5: purpose or thesis statement  
 Chpt 7, pp 132-35: effective paragraphs
2. Remember that a review paper has the following sections:

Title

Introduction

Hook--importance of issue/area to nutritional science

Background--brief, but clear and adequately referenced, scientific presentation of research leading to the CURRENT question

**Note: I am asking that this section include a figure/visual overview/cartoon that illustrates the central thought of your background summary (Example—If you are writing about hyperhomocysteinemia, you might provide a cartoon of the methionine pathway.)**

Purpose/thesis/outline paragraph—last paragraph in the introduction

Significance of area and specific research question

Subheadings of groups of literature to be reviewed

Discussion points

Conclusion

Body

Subheadings noted in the statement of purpose

Concise but explicit “thumbnail sketches” for each (or groups of similar) research article(s)

Discussion

Introductory paragraph that lists/describes the logical “arguments” you used to compare, contrast, criticize and integrate the various lines of evidence described in the individual research articles

**Note: I am asking that this section include a “comparison table” that organizes and summarizes the key information about each research article. It should include a) all information described in the body of the paper and b) support for the “arguments” you present in the discussion.**

Conclusion

Clear, specific “bottom line,” supported by the literature

References

Current, high quality references from primary peer reviewed literature

3. Check that your purpose paragraph includes each component described above
4. Set a time to meet face to face with your writing buddy. Ask your buddy to a) read your paragraph out loud to you, b) “translate” what she thinks you are trying to say, c) respond to your clarifications, and d) make recommendations for a clearer, more logical paragraph.

Due \_\_\_\_\_ Name \_\_\_\_\_

12a \_\_\_\_\_/5 pts

12b \_\_\_\_\_25 pts

**NTR 338W Assignment 12b****Third Paper : 5-7 pages, 10-15 research references**

\*\*Submit in folder with this form, original edited draft, peer editing comments, response to your peer editor, revisions, and copies of references\*\*

\_\_\_\_\_ Title (clear, succinct, descriptive)

\_\_\_\_\_ Introduction--hook, significance/importance of topic, review of literature, includes cartoon or visual aid

\_\_\_\_\_ Statement of Purpose--clear, meets outline function, identifies general area of research and sub-topics of literature review, discussion points, conclusion/bottom line

\_\_\_\_\_ Body (not identified as such but subheadings are shown)--insightful thumbnail sketches of papers, including subjects; timeline; diet/experimental protocol; assay methods; key data such as means, sd, range; statistical tests; grouped by technique/approach

\_\_\_\_\_ Discussion—compares, contrasts, criticizes research papers; includes a table summarizing major findings and differences; logically organized; all statements supported by literature

\_\_\_\_\_ Summary/conclusion--specific, logical, clear, supported by data/research

\_\_\_\_\_ References—scientific merit, applicable to topic, timeliness, adequacy of approach and techniques, properly cited, copies included in folder

\_\_\_\_\_ Writing Mechanics—proofreading, style, grammar, clarity, organization, coherence

**\*\*\*Attach this page to a marked-up/edited copy of the manuscript and answers to questions in Assignments 10 and below\*\*\***

Due with Third Paper	Name of peer editor _____	_____ /5 pt
<b>NTR 338W</b>		
<b>Assignment 13 Peer Editing of Third Paper</b>		
Author and title of paper you edited _____		
Date you received paper _____	Date you met with author _____	

- Meet with your peer editor early in the writing process and obtain input about your topic and approach (“storyboard” or “concept check”)
- Draft and revise the manuscript incorporating professor and TA suggestions until it represents your very best effort.
- Submit a paper or electronic version of the manuscript to your peer editor for his/her critique/comments/suggestions.
- Please don’t waste your peer editor’s time by giving him/her an incomplete rough draft. Also, please submit drafts to and return comments in a timely fashion.
- The peer editor should (a) make suggestions/corrections on the draft in red pen or digital red ink, (b) evaluate whether the manuscript meets the suggestions in assignment 6, and (c) address each of the questions below, including specific examples.
- The author will schedule a mutually convenient time to meet with the peer editor to review all suggestions and comments.
- Authors will revise the manuscript, addressing each question raised by the editor, and noting such on a separate document.

### **Questions to be addressed in addition to guidelines in Assignment 10:**

- 1) Is the writing interesting and understandable? Give examples of sentences that could use improvement.
- 1) Describe how the topic meets the criteria for “not too big, not too small, interesting, and understandable.” Paraphrase the research question the author was trying to address.
- 2) Copy the author’s introductory “hook.” How could it be improved?
- 3) Does the purpose statement include topic to be reviewed, subgroups of research articles, discussion points, and summation?
- 4) Does the author present significant scientific support for the paper? ... used appropriate sources? ...supplied sufficient and clear documentation? ...distinguished results from discussion/speculation?
- 5) Give one example of a paragraph that would benefit from a transition.
- 6) What style manual did the author follow? Note any deviations from suggested format.
- 7) Give one example of a clear, precise, logical paragraph. Give one example of a wordy sentence. Give examples of inappropriate or inexact words/phrases.
- 8) Quote the concluding statement. Describe why you believe the author did or did not support the conclusion with evidence presented in the body of the paper.
- 9) Are there any sentence fragments ? ... any run-on sentences? ... correct subject/verb agreement? ...correct use of passive voice? ...past tense? ...inappropriate words?
- 10) Is there any slang or jargon? Are all words spelled correctly?
- 11) Does each sentence have correct punctuation?
- 12) Is there any plagiarism in the paper?
- 13) Are all citations in the correct bibliographic form and correctly punctuated?
- 14) List 5 strengths and 5 weaknesses of the paper.

**\*\*\*Attach this page to your abstract\*\*\***

Due \_\_\_\_\_ Name \_\_\_\_\_ /4 pts

**NTR 338W Assignment 14**

**Abstract for Third Paper**

Remember, an abstract summarizes the entire paper. It is not an introduction or a purpose paragraph. It must have content summarizing your introduction, purpose, body, discussion and conclusion.

For this assignment, prepare an abstract of Paper 3 and an annotated bibliography. This is a type of executive summary—probably all a busy boss (professor) will read.