# ENC 3459: WRITING IN THE MEDICAL SCIENCES

(General Education Composition (C) WR 6,000)

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## **COURSE DESCRIPTION**

Catalogue Description: Training in advanced literacy skills for medical practitioners, including the use of medical databases and the presentation of medical research to professional and lay audiences. Working in teams, typical of medical practice, students will also learn techniques for effective interaction with patients.

Credits: 3; Prereq: ENC 1101 or ENC 1102. ENC 3459 meets for 3 periods per week on Monday, Wednesday, and Friday or on Tuesday and Thursday.

Medical professionals have a special obligation to communicate without ambiguity, either in the written or spoken word; they depend on their communication skills to interact productively with other medical experts, colleagues, patients and families, and the public at large. This course will provide students with the opportunity to participate in a range of activities focusing on researching, processing, and sharing medical information with others. Given our current evidence-based medical culture, students will learn to do research using medical databases and other research tools, as well as discovering how best to organize and present their findings to other medical professionals. The healthcare professional must often act as intermediary between the specialized world of scientific research and the more pragmatic world of the general public; consequently, we will also investigate how best to present technical medical information to the layperson.

This course is predicated on the idea that the ability to write and speak clearly are learned skills, not innate talents, which means that better communication can be learned by practice. Students will experiment with a range of communication strategies in class: lectures will be followed by focused written and oral activities that allow students to put theory and strategies into practice. We will read and dissect examples of good writing, in addition to examining several types of medical writing. Students will also participate in a variety of speaking assignments in class, ranging from impromptu to prepared presentations.

# **LEARNING OUTCOMES**

In ENC 3459, students will learn to

- plan, draft, revise, and edit documents for use in the medical sciences
- adapt writing to different audiences, purposes, and contexts, in particular to professionals, patients, and the public
- synthesize and report on the professional literature in the medical sciences
- write and present in a clear, coherent, and direct style appropriate for peers in the medical sciences

- understand and employ the various forms of writing, including analysis and synthesis of literature, case reports, a review paper, a continuing medical education unit, and medical school/graduate school application documents
- avoid plagiarism

## **REQUIRED AND RECOMMENDED READINGS**

#### **Required Readings**

Required readings are available here and on the course website. Students will also be reading extensively in the academic literature related to their major projects.

- Ha, J. F., Anat, D. S., & Longnecker, N. (2010). <u>Doctor-patient communication: A review</u>, *The Ochsner Journal, 10*(1): 38-43. Retrieved from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096184/
- McMillan, V. E. (2006). How and why biologists write. In *Writing Papers in the Biological Sciences,* 4<sup>th</sup> Edition. Boston: Bedford/St. Martin's.
- Schafer, M. (2014). <u>Synthesizing sources</u>. [Lecture]. Retrieved from http://web.clas.ufl.edu/users/msscha/synthesizing\_sources.pdf
- <u>Open access</u> and <u>Open access journal</u>. (n.d.). Retrieved August 6, 2014, from http://en.wikipedia.org/wiki/Open\_access\_%28publishing%29 and <u>http://en.wikipedia.org/wiki/Open\_access\_journal</u>
- Woodford, F. P. (1967). <u>Sounder thinking through clearer writing</u>, *Science, New Series*, 3776, 743-745. Retrieved from: http://www.jstor.org/stable/1721963

#### **Recommended Readings**

Inui, T. S. (2003, February). <u>A flag in the wind: Educating for professionalism in medicine</u>. *Publications of the Association of American Medical Colleges*, 1-34.

Williams, J. (2014). Style: Lessons in Clarity and Grace, 11th Ed. New York: Pearson.

## **MODULES AND PROJECTS**

#### **Project 1: Writing for Professionals**

Students begin with a series of reading and writing assignments designed to familiarize them with the types of articles encountered in the primary literature.

• Synthesis Series – Students read 3 research articles on the same health intervention. Students analyze each article for the components health practitioners use to make medical decisions and create a bulleted list capturing their analysis. Finally, students write a 1-page recommendation statement summarizing the intervention, the benefits and liabilities for patients and providers, and an explicit decision to use or not use the intervention.

• The Review Paper – Students will develop a focused research question following best practices in evidence-based medicine. They gather sources for their work, then write a review paper in the model of a stand-alone, state of the art review. This paper must be 5-7 pages long.

Annotated Bibliography – Students will create an annotated bibliography with a minimum of 10 sources for their review paper. The Annotated Bibliography requires a mix of sources including case studies as well as primary research which students use to develop multiple perspectives on their topic. The Annotated Bibliography requires students to write summaries of each article demonstrating in-depth analysis of content in terms of their project. In addition, students provide an evaluation of the article for its direct contribution to their project, showing critical thinking about how information is used differentially according to the needs of a particular project.

## **Project 2: Writing Application Materials**

To give students a foundation for graduate school and internship applications, they compose application essays or personal statements, résumés, and cover letters tailored to a particular graduate program or job advertisement.

## **Project 3: Team CME Presentation**

For the final project, students will work in teams to design and deliver a CME (continuing medical education) unit similar to the .25 credit CMEs offered online. The CME will include a case study, quizzes, and a persuasive review intended to educate medical practitioners about some health topic.

## GRADING

Grading for this course will be rigorous. Successful assignments will demonstrate understanding and practice of professional writing. Students are expected to follow the conventions of the discipline as specified in the appropriate manuscript form and illustrated in the major scholarly and professional publications in the field. To receive a passing grade in the course, each paper must reach the minimum assigned word count.

## **Assignment Values and Word Counts**

Assignments	Points	Words
Synthesis Series (15 [pass/fail]/30/30 pts + 50 pts/synthesis paper)	125	1050
Medical Communications Project		
Annotated Bibliography (10 pts each for first 5 entries; 100 for final)	150	1200
Physician's Review	200	1500
Informative Presentation	25	
Med School Application Portfolio		
Résumé	50	300
Personal Statement	75	750
Mini-Interview Experience	25	

Final Team Project		
Team CME Proposal	50	200
CME Final Paper	100	2000
Team Presentation	100	
CME Poster or Handout	50	
Homework and In-class Activities	50	
Total	1,000	7000

## **Grading Scale**

А	4.0	93-100	930-1000	С	2.0	73-76	730-769
A-	3.67	90-92	900-929	C-	1.67	70-72	700-729
B+	3.33	87-89	870-899	D+	1.33	67-69	670-699
В	3.0	83-86	830-869	D	1.0	63-66	630-669
B-	2.67	80-82	800-829	D-	0.67	60-62	600-629
C+	2.33	77-79	770-799	Е	0.00	0-59	0-599

**Note**: A grade of C- is not a qualifying grade for major, minor, Gen Ed, or College Basic distribution credit. For further information on UF's Grading Policy, see:

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx#hgrades http://www.isis.ufl.edu/minusgrades.html

## Revisions

At the teacher's discretion, major assignments may be revised for a higher grade.

## **Assessment Rubric**

The instructor will evaluate and provide feedback on the student's written assignments with respect to content, organization and coherence, argument and support, style, clarity, grammar, punctuation, and mechanics. In order to confer credit for the University Writing Requirement, the following assessment rubric will be used for all assignments. More specific rubrics and guidelines applicable to individual assignments may be delivered during the course of the semester.

	SATISFACTORY (Y)	UNSATISFACTORY (N)
CONTENT	Papers exhibit evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide an adequate discussion with basic understanding of sources.	Papers either include a central idea(s) that is unclear or off- topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources.
ORGANIZATION AND COHERENCE	Documents and paragraphs exhibit identifiable structure for topics, including a clear thesis statement and topic sentences.	Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack

		transitions and coherence to guide the reader.
ARGUMENT AND SUPPORT	Documents use persuasive and confident presentation of ideas, strongly supported with evidence. At the weak end of the satisfactory range, documents may provide only generalized discussion of ideas or may provide adequate discussion but rely on weak support for arguments.	Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis.
STYLE	Documents use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical structure.	Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly.
MECHANICS	Papers will feature correct or error- free presentation of ideas. At the weak end of the satisfactory range, papers may contain a few spelling, punctuation, or grammatical errors that remain unobtrusive and do not obscure the paper's argument or points.	Papers contain so many mechanical or grammatical errors that they impede the reader's understanding or severely undermine the writer's credibility.

# **GENERAL EDUCATION OBJECTIVES**

This course confers General Education credit for Composition (C). Composition courses provide instruction in the methods and conventions of standard written English (i.e., grammar, punctuation, usage) and the techniques that produce effective texts. Composition courses are writing intensive, require multiple drafts submitted to your instructor for feedback before final submission and fulfill 6,000 of the university's 24,000-word writing requirement. Course content should include multiple forms of effective writing, different writing styles, approaches and formats, and methods to adapt writing to different audiences, purposes and contexts. Students should learn to organize complex arguments in writing using thesis statements, claims and evidence, and to analyze writing for errors in logic.

In Writing in the Medical Sciences, these objectives will be met in a variety of ways. Each major writing assignment, the review paper, the professional portfolio, and the CME presentation, constitutes a particular form of writing that requires a different writing style, approach, and format. Especially important in all of the assignments is adapting rhetoric to different audiences, purposes, and contexts. In the professional portfolio, for example, students will be asked to define the primary readers by identifying and analyzing the institution to which they are making the applications. In the review paper, the audience and context will be defined by a likely venue for publication, and students will be assessed on how effectively they tailor the work to the readers of that source. All of the assignments require that students develop complex arguments, providing effective evidence for an explicit or implied claim. Each assignment requires students

to write clearly and concisely, stylistic elements that are important in all academic and professional communication.

# **GENERAL EDUCATION STUDENT LEARNING OUTCOMES**

**Content:** Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline.

**Communication:** Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline.

**Critical Thinking:** Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.

Student Learning Outcomes will be assessed through the written assignments and presentations. Students will demonstrate content knowledge when they analyze the work of peers and the published work related to their fields. The communication outcome will be assessed primarily through the major writing assignments in which students are required to reason well and convey their knowledge and ideas clearly, as well as through collaborative activities both in-class and out-of-class. Critical thinking, a fundamental component of this course, will be assessed by measuring the degree to which papers effectively analyze and synthesize information and develop reasonable explanations of and solutions to health problems in a manner appropriate to the discipline of medicine.

## WRITING REQUIREMENT

This course also confers 6000 words towards the Writing Requirement (WR), which ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning. While helping students meet the broad learning outcomes of content, communication, and critical thinking, the instructor will evaluate and provide feedback on students' written assignments with respect to grammar, punctuation, clarity, coherence, and organization

Course grades have two components. To receive Writing Requirement credit, a student must receive a grade of C or higher and a satisfactory completion of the writing component of the course.

## **COURSE POLICIES AND PROCEDURES**

#### Attendance and Participation

Because Writing in the Medical Sciences is a skills-based class, regular attendance and participation is vital. Writing skills are gained by experience, so sessions often include in-class activities, which are difficult or impossible to replicate outside of class. Consequently, frequent absences will affect students' success in the course. For each 3 unexcused absences, students will lose one letter grade (100 points).

Repeated tardiness will also hurt students' grades, so come to class on time and be prepared for discussion. Arriving more than 15 minutes after class starts will count as an unexcused absence. If students are absent or tardy for any reason, they are still responsible for the work done in class and for the assignments given that day.

The policy of the University Writing Program is that if students miss more than six periods during the term, they will fail the entire course. Double periods count as two absences. The UWP exempts from this policy only those absences involving university-sponsored events, such as athletics and band, and religious holidays. For absences due to illness or injury, the instructor may require a signed doctor's note.

Since so much of professional writing is collaborative, participation is a crucial part of the class. Students are expected to work with their peers in a professional manner designed to support the success of the groups.

## Academic Honesty

Student conduct at the University of Florida is governed by the UF Student Honor Code, (<u>https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/</u>). The Honor Code requires Florida students to neither give nor receive unauthorized aid in completing all assignments. Violations include cheating, plagiarism, bribery, and misrepresentation, all defined in detail at the above site.

## Plagiarism

Plagiarism is a serious violation of the Student Honor Code. The Honor Code prohibits and defines plagiarism as follows:

Plagiarism. A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.

2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student. (University of Florida, Student Honor Code, 4.041[3] [a], 19 August 2014)

University of Florida students are responsible for reading, understanding, and abiding by the entire <u>Student Honor Code</u>. The University Writing Program takes plagiarism very seriously, and treats instances of plagiarism as dishonesty and as a failure to comply with the scholarly requirements of this course. Students commit plagiarism when they present the ideas or words of someone else as their own.

*Important tip*: Never copy and paste something from the Internet without providing the exact location and citation information for the source.

If a student plagiarizes all or any part of any assignment, he or she will receive a failing grade on the assignment. Additionally, instructors may impose a course grade penalty and report any incident of academic dishonesty to the Office of the Dean of Students. Each student's work may be tested for its originality against a wide variety of databases by anti-plagiarism sites to which the University subscribes, and negative reports from such sites may constitute proof of plagiarism. Other forms of academic dishonesty will also result in a failing grade on the assignment as a minimum penalty. Examples include cheating on a quiz or citing phony sources or quotations.

## **Classroom Conduct**

Much of this class is discussion-based, so it is vital that we show respect for each other's views. Students are required to set cell phones to vibrate during class. Ringing phones and text messaging is an unprofessional disruption, which may result in students being asked to leave the classroom and being counted absent.

#### Due Dates, Make-up Policy, and In-Class Work

Papers and drafts are due at the beginning of class or online at the assigned deadline. Late papers will not be accepted without a valid excuse as outlined above. In these cases, students should consult with the instructor to turn in the work as soon as is feasible given the situation. Note that failure of technology is not an excuse.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>.

#### **Conferences and Writing Studio**

Students are encouraged to use the instructor's office hours if there are questions about progress in the course, work underway, or any other course-related concerns. If there is a conflict with the posted office hours, please contact the instructor to schedule a better time. Having conferences on assignments is often the best way to improve the quality of final drafts.

The <u>*Writing Studio*</u> also offers one-on-one assistance on writing projects and is available to students of all levels.

#### Evaluations

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <u>https://evaluations.ufl.edu</u>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.

#### Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <u>www.dso.ufl.edu/drc/</u>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

# **Schedule of Classes and Assignments**

This schedule is subject to change. Readings, activities, and assignments are also listed and will be updated on the course website. The online version of the schedule and due dates supersedes any paper copies.

All homework and readings are due the class period after they are assigned unless otherwise noted on schedule. All assignments are DUE on the day they are listed.

## **Evidence-Based Medical Literacy**

#### Week 1 (8/24-8/26)

Monday – Introduction to Course

Wednesday - create a professional profile

- **In class**: Blog entry #1 The "Writing Diagnostic" answer the following question: What personal experience best illustrates why you want to become a medical practitioner?
  - blog posts should have an appropriate title
  - blog posts should be relatively short 3 paragraphs MAXIMUM
- Read: "Doctor-Patient Communication: A Review"
- Read "Sounder Thinking Through Clearer Writing"

Friday – Scientific Communication in Medicine: The EBM Approach

- Read "Pre-Processed Literature" (from class web site)
- Read Genres/Types of Medical Literature (from class web site)

#### Week 2 (8/29-9/2)

Monday – Evidence Based Practice + Time Crunch = Pre-processed Literature

Read Synthesis Series Article #1

Wednesday – Analysis #1 in class

- Read Synthesis Series Article 2
- Bring completed draft of Editor's summary #1 to class on Friday

Friday – Peer Review: ES 1  $\rightarrow$  submit by end of class

- Read Synthesis Series Article #2
- **DUE**: Editor's Summary #1

#### Week 3 (9/5-9/9)

Monday - No Class: Labor Day

Wednesday – Discuss BA Analysis #1and #2 in class

• Read Synthesis Series Article #3

Friday – Peer Review ES #2 /Analysis #3

- DUE: Editor's Summary #2
- Read "Writing the Synthesis Paper," on Articles/Instructions page (on class web site)

#### Week 4 (9/12-9/16)

Monday - Peer Review ES #3/ The Synthesis Paper

• **DUE:** Editor's Summary #3

Wednesday - The Synthesis Paper / Synthesizing Sources - in-class exercise

Friday – Synthesis Paper / The Medical Communications Project /Choosing Topics for Review

- Read "How and Why Biologists Write"
- Read <u>Annotated Bibliography</u> page (on class web site)

# The Medical Communication Project

#### Week 5 (9/19-923)

Monday – Library Workshop w/ Denise Bennett

- DUE: The Synthesis Paper
- Wednesday Library Workshop, Part II

Friday – Annotated Bib Assignment

• Bring first research article to class on Monday

#### Week 6 (9/26-9/30)

Monday - Writing the Annotated Bibliography/AB #1 in class

• **DUE**: AB #1 – post to Canvas (make sure to use "Word" paste box or inline editing tools)

Wednesday – The Review Paper in Medical Science

- Bring draft of AB #2 to class on Friday
- Friday Peer Review AB #2 / The Review Paper: Body
  - DUE: AB #2 post to Canvas

#### Week 7 (10/3-10/7)

Monday – Informative Presentation

• DUE: ABs #3 & #4– post to Canvas

Wednesday - Informative Presentation

- Everyone should be ready to present on MONDAY
- DUE: AB #5 post to Canvas

Friday - No Class: Homecoming

#### Week 8 (10/10-10/14)

Monday - Presentations

Wednesday – Review Paper: Introductions / Conclusions

Friday – Review Paper: Map/Outline (in class)

 DUE: Annotated Bibliography – clean copy of ALL entries, submitted as Word attachment – have available to use in class

#### Week 9 (10/17-10/21)

Monday - The Review Paper Revisited

• Bring draft introduction to class on Wednesday

Wednesday - Peer Review Introduction

• Bring draft of one body section to class on Friday

Friday – Peer Review one body section

# Applying to Medical School

#### Week 10 (10/24-10/28)

The Medical School Application: Personal Statements

DUE: Review Paper

Wednesday – Personal Statements

Friday – Résumés

#### Week 11 (11/7-11/11)

Monday – Peer Review Personal Statement/Résumés/ Medical School Interview Strategies Wednesday – The CME Project

CME Step One: On Your Own (from class web site)

Friday - No Class: Veterans' Day

# The Continuing Medical Education Project

#### Week 12 (11/14-11/18)

Monday - CME: Meet Your Group / Choose Topic

- DUE: Medical School Application Materials
- Topic choices emailed to instructor 1 message per group include ALL group members on email (use CC function)

Wednesday – CME Proposal Workshop Friday – Addressing the Audience

#### DUE: CME Proposal

#### Week 13 (11/21-11/25)

Monday – Structure of Final Paper / Creating a Case Study Wednesday – No Class: Thanksgiving Friday – No Class: Thanksgiving

#### Week 14 (11/28-12/2)

Monday – CME Workshop Wednesday – CME Peer Review Friday – CME Presentations

• Draft CME DUE on Canvas

#### Week 15 (12/5-12-7)

Monday – CME Presentations Wednesday – CME Presentations