

GEORGE MASON UNIVERSITY
School of Recreation, Health, and Tourism

EFHP 690 – 002—Scientific Communications (3)
Fall 2013

DAY/TIME:	M, W 10:30 am – 11:45 am	LOCATION:	PW BRH # 212
PROFESSOR:	Dr. Jatin P. Ambegaonkar	EMAIL ADDRESS:	jambegao@gmu.edu
OFFICE LOCATION:	Bull Run Hall #201C	PHONE NUMBER:	703-993-2123
OFFICE HOURS:	W 1.00 PM – 2:00 pm and by APPT	FAX NUMBER:	703-993-2025

PREREQUISITES

EFHP 612, EFHP 620, EFHP 621, or Permission of Instructor

COURSE DESCRIPTION

Studies and applies written and verbal communication skills in reading, analyzing, writing, and distributing scientific information in Applied Kinesiology.

COURSE OBJECTIVES

At the completion of this course students should be able to:

1. Review and evaluate the quality of scientific literature
2. Demonstrate understanding of scientific communication including style and sentence construction, common misuses of words, elements of composition, different types of scientific literature
3. Describe the stages of the scientific communication processes (prewriting, drafting, revising, final edits, analyzing audience and purpose)
4. Present scientific information using professional written and verbal communication formats

COURSE OVERVIEW

In this course students learn the skills required for scientific communications. Students will review scientific information presented in professional and popular media. Students will also develop a scientific communication proposal that will include describing the significance ability to communicate will be evaluated using in a variety of formats as they present information

In addition to learning effective communication, students will learn to evaluate the quality of science presentation available across various media from popular media (news, magazines) to professional sources (scientific journals). The course will cover scientific writing styles, grammar, parts of speech, punctuation, tense, and agreements, different types of research and scientific literature, presentation of graphical information via figures and charts. Through multiple assignments, students will learn the scientific process from organization of a manuscript to its final publication, and professional presentation of scientific results (oral and poster).

Students are held to the standards of the George Mason University Honor Code. You are expected to attend class sections, actively participate in class discussions, complete in-class exercises and fulfill all assignments. Assignments must be turned in at the beginning of class on the specified date due or **no credit will be given**.

NATURE OF COURSE DELIVERY

Face-to-Face meetings with hybrid in-class and online assignments

REQUIRED READINGS

Matthews JR, Matthews RW (2008) *Successful Scientific Writing. A Step-By-Step Guide for the Biological and Medical Sciences*. Cambridge University Press 2008 ISBN-10: 0521699274. (SSW)

Morgan SE, Reichert T, & Harrison, TR, (2001) *From Numbers to Words: Reporting Statistical Results for the Social Sciences*. Pearson ISBN-10: 080133280X | ISBN-13: 978-0801332807 (NTW)

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

Academic Load

Although many students must work to meet living expenses, employment and personal responsibilities are not a consideration for missed classes, late or incomplete assignments, the course content, or the course schedule (see <http://catalog.gmu.edu>). Student employment does not take priority over academic obligations. I recognize that many students need to work in order to meet living expenses, however, there are distinct guidelines for students in terms of the number of credit hours which should be attempted based on how many hours per week a student has outside employment. For additional information on this subject, please see the GMU Academic Catalog (http://catalog.gmu.edu/content.php?catoid=5&navoid=104#Registration_attendance) for further information. Students who fail to observe these guidelines may expect no special consideration for academic problems arising from the pressures of employment.

Honor Code

Students are held to the standards of the George Mason University Honor Code (see <http://honorcode.gmu.edu> for details). Violations, including cheating and plagiarism, will be reported to the Honor Committee. Student assignments may be put through plagiarism detecting software.

EVALUATION

This course will be graded on a point system, with a total of 100 possible points.

Participation

Students are expected to be on time, attend all class meetings and be prepared for in class assignments and projects. Excused absences include the following: illness (must bring a receipt or note from a doctor), family death, athletic/academic event, and others at the discretion of the instructor. For known upcoming absences, students must contact the instructor at least one week in advance to the missed class to make up work. In the case of illness or some other unforeseen absence, the student must contact the instructor via e-mail or telephone. At the next attended class meeting the student will discuss material that is to be completed. It is the student's obligation to pursue any make-up work.

Writing Assignments General Guidelines

1. All papers must be formatted as follows: double spaced, 12 point times new roman font, 1 inch margins, name and title in running header at top left hand corner, continuous line numbers on left margin, page numbers top right in header. Page limits do not include reference section
2. In text citations and references must follow the most current style guidelines published by the American Medical Association (AMA).
3. Points will be deducted for spelling, grammatical, or formatting errors.
4. A digital copy must be turned in online with the accompanying reference library associated with the assignment.

Introduction

Students will write the introduction section of their chosen scientific project that may include but is not limited to: significance of topic, known background information, gaps in the literature, and the purpose of their project.

Methods

Students will write a methods section to investigate their chosen scientific project that may include but is not limited to: participants, Institutional Review Board (IRB) approval details, experimental procedures, instrumentation, and statistical analyses

IRB Materials

Students will submit a complete IRB Application to investigate their chosen scientific project that may include but is not limited to: rationale, IRB narrative, consent forms and data sheets.

Results

Students will write a preliminary draft of their results of statistical tests of their chosen scientific project. Mock data may be used if real data are unavailable.

Presenting Data Visually

Students will present their results using at least 1 table and at least 1 figure (e.g. graph, chart) to describe the results of their chosen scientific project. Mock data may be used if real data are unavailable.

Discussion

Students will write a discussion interpret findings of their chosen scientific project. Sections include but are not limited to: explanation of findings, comparing and contrasting with previously published literature, limitations and future recommendations, practical and/or clinical implications, and a conclusion section.

References

Students will format a reference list for their scientific project according to AMA format guidelines

Abstract

Students will write an abstract about their scientific project in format for submission to a professional conference or a target journal using conference or journal guidelines.

Media Communication

Students will write a 1-page summary about their chosen scientific topic for publication in popular media (e.g. newspapers, magazines)

Poster Presentation

Students will submit a formal PowerPoint poster presentation of their chosen scientific project.

Oral Presentation

Students will present their chosen scientific project using a formal oral PowerPoint presentation.

Manuscript

Students will write a full manuscript draft in a formal format for possible submission to a peer-reviewed journal. Students will submit an initial full draft and a final full draft.

<i>Requirements</i>	<i>Points</i>
Participation	5
Introduction	5
Methods	5
IRB Materials	5
Results	5
Presenting Data Visually	5
Discussion	5
References	5
Abstract	5
Media Communication	5
Poster Presentation	5
Oral Presentation	20
Manuscript Initial Full Draft	5
Manuscript Final Full Draft	20
<i>TOTAL</i>	100

Grading Scale

The student's final letter grade will be earned based on the following scale:

Grade	Percentage	Quality Points	Grade	Percentage	Quality Points
A+	93%	4.00	B	83%	3.00
A	93%	4.00	B-	80%	2.67*
A-	90%	3.67	C	73%	2.00
B+	87%	3.33	F	<73%	0.00

Note: * Although a B- is a satisfactory grade for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.

TENTATIVE COURSE SCHEDULE

WEEK	TOPIC	READINGS	ASSIGNMENT DUE
1(Aug 26/28)	Course Overview / Goals of Scientific Communication. Plagiarism. Ethics	SSW Ch. 1	
2(Sep 4)	Evaluating Scientific Literature: Primary and Secondary Articles	SSW Ch. 2	Introduction
3(Sep 9/11)	IRB Logistics / Word Processing		
4(Sep 16/18)	Writing Coherently	SSW Ch. 5	IRB Materials
5(Sep 23/25)	AMA Style, Clarity, Style, Grammar, Transitions. Coherence	AMA Style Handout	
6 (Sep 30 Oct 2)	Word Choice And Syntax	SSW Ch. 6	Methods
7 (Oct 7/9)	Grammar, Numbers and Mechanics	SSW Ch. 7	
8 (Oct 15/16)	Reporting Statistics	NTW Ch.1&2	
9 (Oct 21/23)	Reporting Statistics	NTW Ch. 2, 4, 5, 6, 7	Results
10 (Oct 28/30)	Visually Supporting Data	SSW Ch. 3& 4 NTW Ch.8. App	
11 (Nov 4/6)	Effective Oral Presentations and Speeches		Present Data Visually
12 (Nov 11/13)	Effective Poster Presentations		Discussion and References
13 (Nov 18/20)	Media and General Public Communications		Abstract
14 (Nov 25)	The Publication Process – Journal Requirements. Addressing Reviewer Feedback	SSW Ch. 8 NTW Ch. 9	Initial Manuscript
15 (Dec 2/4)	Bringing it all together		Poster Presentation & Media Comm.
16 (Dec 12)	Finals -10: 30am- 1:15pm		Oral Presentation & Final Manuscript

Note: Faculty reserves the right to alter the schedule as necessary.

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>].
- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

Campus Resources

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
- For additional information on the College of Education and Human Development, School of Recreation, Health, and Tourism, please visit our website [See <http://rht.gmu.edu>].

PROFESSIONAL BEHAVIOR: Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT: The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles.

