

GEORGE MASON UNIVERSITY  
School of Recreation, Health, and Tourism

EFHP 690 – 001—Scientific Communications (3)  
Spring 2016

DAY/TIME:	TR 10:30 am – 11:45 am	LOCATION:	PW BRH # 247
PROFESSOR:	Dr. Jatin P. Ambegaonkar	EMAIL ADDRESS:	jambegao@gmu.edu
OFFICE LOCATION:	Bull Run Hall #201A	PHONE NUMBER:	703-993-2123
OFFICE HOURS:	T 12.00 PM –1:00 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 (2014) *Successful Scientific Writing. A Step-By-Step Guide for the Biological and Medical Sciences*. 4th ed. Cambridge University Press SBN-13: 978-1107691933 ISBN-10: 1107691931. (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.

### Attendance and Participation

Attendance is **required** for this class. Arriving to class late or leaving early will be count as an absence.

Students are expected to show up prepared to class and participate during class activities. Students who know they will need to miss a class for a legitimate reason should contact the instructor before the class. Students who unexpectedly miss a class for an excused reason should contact the instructor within 24 hours of missing the class. Make-up assignments, or other grades will be granted for excused absences only. Excused absences include: serious illness, official university excused absences and extenuating circumstances. It is the student's responsibility to contact the instructor in order to obtain the make-up work.

### 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](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. In addition to attending the lectures there will be regular homework assignments and projects that may require anywhere from 2-10 hours of work per week. Additionally, regular readings will be assigned to students. Students are expected to complete all outside work on time. Extensions will not be granted on assignments unless an extenuating circumstance arises. Students may be asked to provide official documentation in certain instances. The purpose of the assignments is to aid students in learning the material. *Students who attend lectures, complete all assignments on time, and attend office hours when necessary will be better prepared for the final presentations than students who do not do so.*

### Honor Code

Students are held to the standards of the George Mason University (GMU) 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.

### Technology Use During Class

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. No sound emitting technology (e.g., cell phones, smart phones, iPads, Tablets, pagers, etc.) is allowed at any time during the class period. Students who are observed using any form of technology inappropriately (e.g., sending text messages from cell phones, visiting social networking sites from laptops, etc.) will be dismissed from class for the day, counted as an absence, and not permitted to make up missed assignments.

### Correspondence

The preferred method of communication outside of class is email. Emails should originate from a George Mason email account and be in a professional format (i.e., emails should not look like a text message!). Emails with no

text in the body will not be acknowledged.

Dear Dr. Ambegaonkar (*Beginning salutation*)

I have a question regarding one of the assignments. (*Text body*)

Regards, (*Ending Salutation*)

“J Doe” (*Your name*)

### **Writing Assignments General Guidelines**

1. Unless explained otherwise in class, all papers must be formatted as follows: double spaced, 12 point times new roman font, 1 inch margins, student name and paper 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.

### **EVALUATION**

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

#### **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.

#### **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 American Medical Association (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 the National Athletic Trainers’ Association (NATA) Research and Education Foundation

Free Communications Program conference or journal guidelines <http://natafoundation.org/free-communications/peer-reviewed-track-instructions>

### Poster Presentation

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

### Oral Presentation

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

### 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 using the Journal of Athletic Training guidelines [http://natajournals.org/page/ForAuthors\\_JAT](http://natajournals.org/page/ForAuthors_JAT).

### Participation

Students will actively participate in class discussions.

### Peer Review

Students will review their peers' papers in a timely manner.

<b><i>Requirements</i></b>	<b><i>Points</i></b>
Introduction	5
Methods	5
Results	5
Presenting Data Visually	5
Discussion	5
References	5
Abstract	5
Poster PowerPoint Presentation	5
Oral PowerPoint Presentation	15
Manuscript Initial Full Draft	10
Manuscript Final Full Draft	20
Participation	5
Peer Review	10
<b><i>TOTAL</i></b>	<b>100</b>

### 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(Jan 19/21)	Course Overview / Goals of Scientific Communication,	SSW Ch. 1	
2(Jan 26/28)	Evaluating Scientific Literature: Primary and Secondary Articles	SSW Ch. 2	
3(Feb 2/4)	Word Processing		
4(Feb 9/11)	Writing Coherently	SSW Ch. 5	Introduction due Feb 9
5(Feb 16/18)	AMA Style, Clarity, Style, Grammar, Transitions, Coherence	AMA Style Handout	
6 (Feb 23/25)	Word Choice And Syntax	SSW Ch. 6	
7 (Mar 1/3)	Grammar, Numbers and Mechanics	SSW Ch. 7	Methods due Mar 3
8 (Mar 8/10)	SPRING BREAK		
9 (Mar 15/17)	Reporting Statistics	NTW Ch.1, 2, 4, 5, 6, 7	
10 (Mar 22/24)	Visually Supporting Data		Results, Present Data Visually due Mar 22
11(Mar 29/31)	Effective Oral and Poster Presentations, and Speeches	SSW Ch. 3& 4 NTW Ch.8, App	Discussion and References due Mar 29
12(Apr 5/7)	Media and General Public Communications		Abstract and Initial Manuscript due Apr 5
13 (Apr 12/14)	The Publication Process – Journal Requirements	SSW Ch. 8 NTW Ch. 9	Poster PowerPoint due Apr 12
14 (Apr 19/21)	Addressing Reviewer Feedback		Oral PowerPoint Presentation due Apr 19
15 (Apr 26/28)	Bringing it all together		Final Manuscript due Apr 26
16 (May 10)	Finals -10: 30am-1:15pm		Oral Presentations

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

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### *Student Expectations*

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/the-mason-honor-code/>].
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services and inform their instructor, in writing, as soon as possible. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor [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.

