COLLEGE OF CHARLESTON
School of Education Health and Human Performance
Department of Health and Human Performance

NOTE: STUDENTS WILL BE REQUIRED TO RECEIVE A 100% ON THE SYLLABUS QUIZ BEFORE PROCEEDING TO OTHER COURSE CONTENT.

Course: EXSC444: Scientific Writing and Data Analysis in Exercise Science

Instructor: Michael G. Flynn
Office: Online Class; Silcox 208
Office hours: Contact me via phone or email T-Th 9-11 a.m. for personal or grading issues. All other questions MUST be posted to the discussion page “Writers’ Garrett,” the equivalent of a student lounge.
Phone: (843) 953-7291 (office); 843-737-3939 (cell for daytime hours only)
Email: flynnmg@cofc.edu

Course meeting: Online, asynchronous. Students may login at times that are convenient for them, provided they complete all assignments on time and participate in class discussions, as prescribed. Students should login each Monday to begin assignments and make a plan for the week. Assignments will typically be due on Wednesday. Students should plan to set aside 3-6 additional hours per week for writing, data collection, literature searches and performing other class tasks.

Prerequisite courses: Senior standing or permission of instructor

Course Description: A study of the general principles of scientific writing and research related to better understanding of the literature in exercise science. The class will be focused on writing effectively and efficiently. Students will write abstracts, research proposals, and selected parts of a manuscript, including the writing of a clear and effective: introduction, materials and methods, results, discussion, conclusions. Students will also be introduced to a variety of writing techniques, techniques for overcoming barriers to writing, and will have considerable practice writing, rewriting, responding to instructor feedback and edits, gain practice with peer editing, and will complete a simple data collection process (data will be compiled from all classmates). Students will be introduced to reference management software, techniques for proper referencing, and plagiarism prevention.

Student Learning Outcomes: Upon successful completion of the course, the student should be able to:
1. Recognize commonly used research designs in exercise science, health, and medicine and understand the difference between original research and review articles.
   a. Evidenced by responding correctly to online quiz questions.
2. Be able to identify keys points, strengths and weaknesses in a research article.
   a. Evidenced by submission of a written critique.
3. Write an effective abstract suitable for submission to a professional conference, such as American College of Sports Medicine.
4. Understand the cogent aspects of the introduction in exercise science and write and submit an introduction following instructions.
5. Understand the mechanics of and write an effective materials and methods section.
6. Become involved in a simple data collection process that will help them gain an appreciation for research design and methodology (and provide data for writing a results section).
7. Present the results of a research project in table and graphic form.
8. Use available literature to write an effective critical review to support the results of a research project.
9. Write the conclusion/summary with salient points.
10. Effectively write and format the referencing style for journals typically used in exercise science.
11. Document a substantial improvement in writing skills over the course of a semester being required to rewrite assignments in response to instructor and peer edits.
12. Be an effective “editor” for writing completed by a student peer.
13. Learn to communicate research effectively in poster or oral presentation format.

Course Texts:
Lindsay, David, Scientific Writing = Thinking in Words. CSIRO Publishing, Collingwood, Victoria, Australia, 2011. Available on your laptop or kindle device from Amazon.

Other readings as assigned.

General class rule...
Don’t write anything that you are not willing to share with your classmates.

Important note: This is a writing class. I want you to spend as much time writing as possible. Therefore, most of your writing will be on the same topic! I will divide you into groups, selected at random, to collect data on a simple research topic. Depending on your geographic location, you may be required to collect data on yourself and submit to a spreadsheet…or work with a partner to collect data. You will use the assigned research topic to write your introduction, methods, results and discussion, as well as your brief review. This way, we spend more time writing and less time finding new literature or information. You will be required to develop a substantial literature base on your topic, but you can use the same literature base for most of your writing. Some exceptions are the “It’s all about me” and abstract assignments below, which will be on different topics. I will also want you to check in with me periodically during the semester. We may face time, google hangout, schedule an office visit (for those in town) or correspond via text or email. I will let you know when these “check-ins” are necessary.

Evaluation:

You may be called upon at any time during the semester to provide a draft of your work (writing/rewriting/revising assignment, below). This is to encourage thoughtful writing that is reviewed, revised, rewritten. To that end, I suggest you consider all due dates to be two days EARLIER than posted below. If I ask for a draft, you are required to provide it by midnight on the request date. I will make these requests no earlier than two days prior to the due date. Simply put, I expect you to start writing each assignment several days before it is due, not dashing it out at 11:30 p.m! One advantage, these drafts will receive additional feedback from me prior to submission. Note the draft deadline for all major assignments, below.

Participation 50 points (questions posted to discussion board, group work, your assistance with developing a strong online community).

Quizzes 100 points
It’s about me (25 points) (Due Jan 16) (post to discussion board- labeled it’s about me)
It’s about me response (25 points) Due Jan 23 (post to discussion board-labeled it’s about me response)
Abstract 1 100 pts (due Feb 1, draft Jan 30) (post to google drive)
Abstract 2 100 pts (due Feb 8, draft Feb 6) (post to google drive)
Introduction 100 pts (due Feb 15, draft Feb 13) (post to google drive)
Data Collection 50 pts (due Feb 28) (post to google sheets)
Editorial skill 50 pts (Peer edit assignment- Methods) (Due Mar 6) See below for details.
Results 100 pts (due Mar 29, draft Mar 27)
Editorial Skill 2 50 pts (Peer edit assignment-Brief Review) (Due 3/27) (send photo via email, EXSC 444 in subject line) See narrative below for details.
Brief Review 100 pts (due 4/5, draft April 3) (post to google docs)
Writing/rewriting/revising 50 points (random selection) variable due dates (see below, important) (post to google docs)
Writing/rewriting/revising 50 points (random selection) variable due dates (see below, important) (post to google docs)
Oral Presentation Video (Due April 17) 150 points
Final Paper 200 points (Due April 26) (post to OAKS dropbox pdf format)

Total 1100

It's all about me! Your first assignment will be to write a one-page (double spaced) synopsis about you! Include where you are from, your interests, hobbies, major, and future plans. Try to use your very best grammar and sentence structure. That is, even though this is an informal message, keep your writing as crisp and formal as you can. Important… write the first paragraph in the first person (“I am from Plainville, Massachusetts…”). Write the remainder of the document in the third person (“Dr. Flynn is a woodworker and boat-builder with four wooden boats in his fleet.”) Save as a pdf and post to discussion board.

It's all about me—responses! Each student will be required to find two students who share similar interests and comment on their “It’s all about me” post. In addition, for the writing assignment, each student will be assigned to another student. They will write a short, creative introduction of that student. That is, they will use the facts from the student intro to create something fun and interesting. For example, “Let me introduce you to my new best friend. I write that because I was surprised about how many things my new classmate and I have in common…” This is just my example. You should come up with your own idea to introduce your classmate. Save as a pdf and post to discussion board!

Abstract 1-Your professor will provide you with information from a research article (intro, methods, results, discussion) with the abstract, authors’ names, and other identifying information removed. After you review the mini-lecture and other related materials, you will use the information from the research article to create an abstract. The abstract should provide a clear summary of the article, such that the reader understands the purpose, basic methodology, key findings, summary and conclusions. You must adhere to a strict word limit (250 words).

Abstract 2- You will write an abstract from a poster presentation that has all the information, but the abstract and conclusion have been removed. You must read and understand the poster thoroughly as you will be expected to put the abstract into your own words. Strict word limit (150 words)

Introduction-Write a one-page introduction using the G.W.W.W.H. mnemonic presented in the voice thread mini lecture. Your introduction should include at least five references. The topic for your introduction will be assigned at random by the instructor (see “important note” above). These assignments will be made approximately two weeks prior to the introduction assignment is due. You should begin finding literature (original research) immediately after the assignment is made, so you will have the information you need to write.
**Writing/Rewriting/Revising**--This is a writing class. Writing improves with practice. Your instructor will provide a number of assignments that allow you to practice various aspects of scientific writing. Some of these are exercises designed to give you practice, but may or may not be part of a graded assignment. I believe an important part of becoming a better writer is responding to edits and feedback. Examining the comments and edits of others provides insight into what makes quality writing and helps you improve. In order to make sure that you are keeping up with all writing assignments, and get practice responding to critiques, students will be randomly selected to submit a draft of their work. You should start writing in advance of the due date. When randomly selected, you will be asked to submit a draft of your assignment by the end of that day. Thus, each of the writing exercises must be taken seriously and started in advance of the due date.

**Writing/reviewing/revising (2)** A bit more…To succeed in this class, you need to learn to write, review, and revise. If an assignment is due on Wednesday at midnight, you chances of success will be improved if you start the assignment when assigned, write a draft, review the draft, write a final draft, review, and submit…or some similar scheme. Beginning the assignment at 11:30 p.m. and submitting at midnight on the due date may get it done, but won’t give you the practice you need or result in a high quality submission. Therefore, I will select students at random to submit a pdf of their work on their most recent assignment. They will submit a draft in advance of the due date so that I may provide a critique and an opportunity to revise and resubmit. The student will receive feedback and a grade on these assignments.

**Writing/reviewing/revising bonus**- Same as above (an opportunity to improve your grade)…should you be selected more than twice.

**Brief Review**-Write a two-page review article, using the instructions presented in the mini-lecture (and on OAKS). This review will be stylistically different your introduction, but will be on the same topic.

**Editorial Skill**- Becoming a more effective “editor” will make you a better writer. Writing styles and writing quality will differ from student-to-student. You have the opportunity to learn and develop your own writing skills as you peruse the work of others. In general, students tend to be “gentle” editors. I want to train you to be what might be called a “pencil-whipper.” That is, provide a thorough review that also allows the writer to accept or disregard your comments when there are differences in style or simple disagreements about suggested changes. As an editor your job is to do your best to improve the work of the writer. As the writer, your job is to assess the comments of the editor, make the changes that will improve the document, and ignore the suggestions that will not result in improvement or take the document in a different direction from what you, the writer, intended. I will provide you with practice material: 1) A writing sample that needs work, and 2) Some of my own writing. Your assignment is to read, edit, and improve the writing of one of your classmates. They will provide you with a draft of their “METHODS.” You will provide your comments and submit the edited version to me. YOU CAN USE AN APP that allows you to write on pdf documents (good notes is excellent) or take a photo of hand-written comments on a hard copy. When you send a draft to a fellow student, it must be double-spaced with 1.5 inch margins to provide plenty of space for comments. The instructor will provide some standard proofreader comments and abbreviations to facilitate this process.

**Oral Presentation Video**-Use your voice thread software to develop a presentation with slides, video and voice-over. The talk should be 10 minutes in length and reflect a well-practiced, quality presentation. A sample presentation will be provided for you. You will present the data that you collected on your assigned topic.

**Final Paper** You will use the introduction, methods, results that you wrote earlier in the semester. These sections should be revised and improved, based on comments and suggestions you received from me or your peer editor. You will also need to add a discussion, summary, and conclusion. Use the information provided
in the module on writing a discussion. The finished document will be about five-to-ten pages and will be well referenced (15 + references).

Grading Scale:

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<th>Description</th>
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<tr>
<td>93+</td>
<td>A</td>
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<tr>
<td>90-92</td>
<td>A-</td>
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<tr>
<td>87-89%</td>
<td>B+</td>
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<td>84-86</td>
<td>B</td>
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<td>80-83</td>
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<td>77-79</td>
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<td>74-76</td>
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<td>67-69</td>
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Late work/Make up policy: I need to provide written feedback in a timely fashion on several of your assignments. This is more difficult if work is not submitted on time. Work submitted after the due date/time will be marked down one letter grade.

Attendance: Success in this course will require that you login frequently. When taught face-to-face, the scientific writing class meets twice per week for 75 minutes. When you login, you will frequently encounter an assignment block that requires several hours of your time. Naturally, the assignments, lectures, readings, etc. can be completed at your own pace, but checking in frequently will make the class more manageable.

Communication: I will use email to communicate class information. I will USUALLY cut-and-paste the email information into the NEWS item of your OAKS page so you have a “running” record of updates, changes, etc. Please check email or review the NEWS section frequently.

Policies

College of Charleston Student Handbook: This is a guide to your responsibilities and rights as a student. If you are not familiar with this document, please take the time to review the information contained within the handbook. [www.cofc.edu/studentaffairs/general_info/studenthandbook.html](http://www.cofc.edu/studentaffairs/general_info/studenthandbook.html).

Academic Honesty: Please refer to the current College of Charleston Student Handbook for the definition of academic dishonesty and the subsequent penalties. Faculty members are required to report violations of the Honor Code to the Office of Student Affairs. If you are found guilty of an honor code violation your grade in the class will be XF and will be so indicated on your transcript. Students at College of Charleston are expected to be at all times in compliance with the Honor Code. Scholastic dishonesty will not be tolerated in this course. Examples of cheating include: plagiarism, seeking outside assistance on an assignment, giving or receiving aid during examinations, using any type of crib sheet, copying from or looking to another exam, or submitting another’s work as your own.

Online Classroom Behavior: Students at the College of Charleston are expected to be at all times in compliance with the Honor Code. Failure to abide with this code will not be tolerated in this course. Examples of inappropriate behavior include behaviors that disrupt instruction by the professor and/or learning of classmates and behaviors that threaten, harass, or discriminate against others. Students who
engage in inappropriate behavior may be asked to drop the class. A warning may be given at the discretion of the instructor. Severe cases of inappropriate behavior will be referred to the Dean of Students for appropriate disciplinary action.

Disability- In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to “reasonable accommodations.” Please notify the instructor during the first week of class of any accommodations needed for the course.

Tentative Class Schedule- This schedule was developed with careful consideration for what is accomplished in a face-to-face class; however, the instructor reserves the right to make changes as needed. Note: Page numbers on electronic books are inconsistent, based on several factors and settings. Therefore, I have made reading assignments based on headings that can be found in the table of contents.

In the schedule below you will find general topics and due dates. Please note: Each week’s assignments begins with a check list. Use the checklist to make sure you have completed all assignments.

Week 1 Jan 11 Intro, syllabus, It's about me (Due January 16th)

Week 2 Jan 16-23 Titles, quality abstracts It's about me, response (Due January 23)

Week 3 Jan 23-30 Research Groups, abstracts (cont) and writing and Introduction Abstract 1 (due Feb 1, draft Jan 30)

Week 4 Jan 30-6 Writing Pet Peeves, Writing Methods Abstract 2 (due Feb 8, draft Feb 6) Initial group meeting complete (Jan 30)

Week 5 Feb 6-13 Data collection, Stats, etc. Finding/posting literature (Due Feb 13)

Week 6 Feb 13-20 Writing Results Introduction (due Feb 15, draft Feb 13)

Week 7 Feb 20-28 Data Collection Week Data collection complete (February 28) Methods Draft Due (Feb 28, to be submitted to a partner for a peer editing assignment)

Week 8 Feb 28-March 6 Writing Pitfalls Editorial Skill 1 (due March 6)

Week 9 Spring Break

Week 10 March 13-20 How to write a review paper Methods (due March 15)

Week 11 March 20-27 Writing results Review paper draft (due March 20 for a peer editing assignment)
Week 12 March 27-April 3 Writing a discussion
Peer Editing 2 (Due March 27) Results (due March 29, draft due March 27)

Week 13 April 3-April 10th Final Thoughts
Review paper (due April 3)

Week 14 April 10- 17 Instructor consult
Oral Presentation video (due April 17)

Week 15 Final Projects nearing completion.
Final Paper due April 26