Keck School of Medicine of USC

SCRM 555: Writing About Stem Cell Biology and Regenerative Medicine (1 unit)

Spring 2018—Tuesdays 1–2 p.m., 2–3 p.m.

Location: Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research at USC (BCC), Seminar Room 101

Instructor: Dr. Joseph T. Rodgers
Office: BCC 301
Office Hours: After class or by appointment
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Instructor: Cristy Lytal
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IT Help: Not applicable
Hours of Service: Not applicable
Contact Info: Not applicable

Course Description

This course provides instruction in writing and communication for various audiences on topics related to stem cell biology and regenerative medicine. The goal is to strengthen and broaden your writing and communication skills for your graduate course work and future career.

The first half of the semester, or module 1, focuses on writing for lay audiences. The second half of the semester, or module 2, focuses on writing for scientific audiences. Assignments include writing, editing and presenting a personal statement or cover letter, a news profile, an elevator pitch and a research summary.

The course is intended for master's students in the Department of Stem Cell Biology and Regenerative Medicine, but is open to all USC graduate students interested in improving their abilities to write and communicate scientific and medical research.

Learning Objectives

This course will:

1. equip students with the skills required to write about stem cell biology and regenerative medicine for a variety of audiences, both lay and scientific, in preparation for graduate course work and a future professional career;
2. provide students with the skills required to make oral presentations to a variety of audiences, both lay and scientific, in preparation for graduate course work and a future professional career;
3. expose students to examples of good writing and effective oral presentations;
4. train students to meet deadlines; and
5. develop students' critical thinking skills.

Prerequisite(s): None
Co-Requisite (s): None
Concurrent Enrollment: None
Recommended Preparation: None

Course Notes

None

Technological Proficiency and Hardware/Software Required

Not applicable

Required Readings and Supplementary Materials

Required reading consists of one popular science book of your choosing. You may either select a book from the below list or suggest another book to the instructors for approval. Your chosen book will be the subject of both the midterm and the final.

- *The 50 Most Extreme Places in the Solar System,* by David Baker and Todd Ratcliffe
- *A Tour of the Calculus,* by David Berlinski
- *The Discovery of Insulin*, by Michael Bliss
- *Perfect Planet, Clever Species*, by William Burger
- *Endless Forms Most Beautiful: The New Science of Evo Devo*, by Sean B. Carroll
- *Remarkable Creatures: Epic Adventures in the Search for the Origins of Species*, by Sean B. Carroll
- *Descartes' Error: Emotion, Reason and the Human Brain*, by Antonio Damasio
- *Self Comes to Mind: Constructing the Conscious Brain*, by Antonio Damasio
- *Mathematics: The Science of Patterns,* by Keith Devlin
- *Moonwalking with Einstein*, by Joshua Foer
- *The Prophet and the Astronomer,* by Marcelo Gleiser
- *Animal Architects: Building and the Evolution of Intelligence*, by James R. and Carol Grant Gould
- *The Honey Bee*, by James R. and Carol Grant Gould
- *Bully for Brontosaurus*, by Stephen Jay Gould
- *Eight Little Piggies*, by Stephen Jay Gould
- *The Flamingo's Smile*, by Stephen Jay Gould
- *The Panda's Thumb*, by Stephen Jay Gould
- *Wonderful Life: The Burgess Shale and the Nature of History*, by Stephen Jay Gould
- *The Elegant Universe,* by Brian Greene
- *The Periodic Table,* by Primo Levi
- *How the Hippies Saved Physics,* by David Kaiser
- *In Search of Memory: The Emergence of a New Science of Mind*, by Eric Kandel
- *The Disappearing Spoon*, by Sam Kean
- *Blind Watchers of the Sky,* by Rocky Kolb
- *The Tangled Wing: Biological Constraints on the Human Spirit*, by Melvin Konner
- *The World in Six Songs: How the Musical Brain Created Human Nature*, by Daniel J. Levitin
- *Microcosmos: Four Billion Years of Microbial Evolution*, by Lynn Margulis
- *Assembling California,* by John McPhee
- *Basin and Range,* by John McPhee
- *In Suspect Terrain,* by John McPhee
- *Warped Passages: Unraveling the Mysteries of the Universe's Hidden Dimensions,* by Lisa Randall
- *Our Cosmic Habitat,* by Sir Martin Rees
- *The Man Who Mistook His Wife for a Hat: And Other Clinical Tales*, by Oliver Sacks
- *Uncle Tungsten,* by Oliver Sacks
- *Broca's Brain*, by Carl Sagan
- *Comet*, by Carl Sagan
- *Cosmos*, by Carl Sagan
- *Shadows of Forgotten Ancestors*, by Carl Sagan
- *A Primate's Memoir: A Neuroscientist's Unconventional Life Among the Baboons*, by Robert M. Sapolsky
- *A Beautiful Math,* by Tom Siegfried
- *The Immortal Life of Henrietta Lacks*, by Rebecca Skloot
- *The Planets*, by Dava Sobel

- *The Youth Pill*, by David Stipp
- *The Cosmic Landscape: String Theory and the Illusion of Intelligent Design,* by Leonard Susskind
- *The Lives of a Cell: Notes of a Biology Watcher*, by Lewis Thomas
- *Black Holes and Time Warps: Einstein's Outrageous Legacy,* by Kip Thorne
- *The Art and Politics of Science*, by Harold Varmus
- *Avoid Boring People*, by James Watson
- *Long for This World*, by Jonathan Weiner
- *On Human Nature*, by E.O. Wilson
- *The Invention of Nature*, by Andrea Wulf
- *Microcosm: E Coli and the New Science of Life*, by Carl Zimmer

Additional papers and reading materials are available on (blackboard.usc.edu), USC's e-learning platform.

Description and Assessment of Assignments

There is no grading curve. Final grades will be determined as follows:

A	93–100
A-	90–92
B+	87–89
B	83–86
B-	80–82
C+	77–79
C	70–76
D	60–69
F	0–59

Assignments will be evaluated on the merits of: expression, development and support of ideas; organization and structure; style, clarity and tone; grammar; and format.

Assignments must be your own original work. Use quotation marks for verbatim wording and citations for both quoted and paraphrased material. Do not submit work done for a previous research project or for another class.

Grading Breakdown

Assignment	**% of Grade**
Personal statement or cover letter	7.5 (2.5 for draft + 5 for revision)
News profile of classmate	15 (2.5 for draft + 2.5 for critique + 5 for first revision + 5 for second revision)
30-second elevator pitch	12.5 (2.5 for draft + 5 for oral presentation + 5 for revision)
Midterm book report	12.5
Chalk talk	7.5 (2.5 for content + 5 for oral presentation)
Data slide	10 (5 for slide + 5 for oral presentation)
Paper Summary	7.5 (2.5 for draft + 5 for revision)
Grant	7.5 (2.5 for initial outline + 5 expanded outline)
Final: Specific Aims	10
Class participation, attendance, punctuality	10
TOTAL	100

Assignment Submission Policy

Completed assignments must be uploaded to Blackboard (blackboard.usc.edu) by the due dates listed on the below Course Schedule. Meeting deadlines is essential; late assignments will receive zero points.

Additional Policies

Attendance: Attendance is required. Each unexcused absence will lower your final grade by 3 percentage points. Each incidence of unexcused lateness will lower your final grade by 1 percentage point. If you do miss a class, contact your instructors to make up the material.

The USC Writing Center: The USC Writing Center is a student-centered, non-grading facility that employs graduate students to work one-on-one with writers at any stage of the writing process and conducts small-group workshops on a wide variety of writing skills.

The center is located in Taper Hall of the Humanities (THH) 216 and is open Monday through Thursday from 9 a.m. to 6 p.m. and Friday from 9 a.m. to 3 p.m. It also holds evening hours in the basement of Leavey Library from 7 to 9 p.m., Monday through Thursday.

You can schedule an appointment for an individual 30-minute conference with a consultant by phone at 213-740-3691 or at the front desk in THH 216. Walk-in appointments are also accepted. A schedule of current workshops can be found at dornsife.usc.edu/writing-center.

Course Schedule: A Weekly Breakdown

Module 1: Communicating with educated non-scientists

	Topics/Daily Activities	**Readings and Assignments**	**Deliverable/ Due Dates**
Week 1 1/9/18	**Lecture:** Introduction and expectations; explanation of personal statement or cover letter, and CV	**Reading:** Select popular science book.	Write personal statement or cover letter—draft. (due by Sunday 1/14/18 at 11:59 p.m.)
Week 2 1/16/18	**Lecture:** Writing basics, plagiarism, citations and style guides (sentences and paragraph structure, the lead, flow, condensing)	**Reading:** Popular science book	Revised personal statement or cover letter. (due by Sunday 1/21/18 at 11:59 p.m.)
Week 3 1/23/18	**Lecture:** Explanation of a news profile **Workshop:** Interviews of classmates	**Reading:** Popular science book **Online:** Read examples of news profiles (content TBD).	Write 300-word news profile about classmate—draft. Submit completed assignment via Blackboard and to the subject of the profile. (due by Sunday 1/28/18 at 11:59 p.m.)
Week 4 1/30/18	**Lecture:** Constructive criticism, conflicting feedback **Workshop:** Peer review of news	**Reading:** Popular science book	Write news profile about classmate—

	profile and discussion		revision based on peer feedback. (due by Sunday 2/4/18 at 11:59 p.m.)
Week 5 2/6/18	**Lecture:** Writing pitfalls (passive voice, fuzzy verbs, nominalizations, jargon, acronyms)	**Reading:** Popular science book	Write news profile about classmate—revision based on teacher feedback (due by Sunday 2/11/18 at 11:59 p.m.)
Week 6 2/13/18	**Lecture:** Explanation of 30-second elevator pitch for Eli and Edythe Broad; writing tips (simple, unexpected, concrete, credible, emotional stories)	**Reading:** Popular science book **Online:** View examples of an elevator pitch (stemcell.usc.edu/videos/scienc epitch). **Assignment:** Prepare to orally present 30-second elevator pitch.	Write 30-second elevator pitch—draft for Eli and Edythe Broad. (due by Sunday 2/18/18 at 11:59 p.m.)
Week 7 2/20/18	**Presentations:** 30-second elevator pitch—draft **Lecture:** Explanation of midterm book report	**Reading:** Popular science book **Assignment:** Prepare to orally present 30-second elevator pitch.	Write 30-second elevator pitch—revision. (due by Sunday 2/25/18 at 11:59 p.m.)
Week 8 2/27/18	**Presentations:** 30-second elevator pitch—revision **Lecture:** Chalk-Talk	**Reading:** Popular science book	Submit topic of chalk talk Thursday 3/1/18 11:59PM

Module 2: Communicating with scientists

Week 9 3/6/18	**Presentations:** Chalk-Talk	**Assignment**: Midterm report on pop-science book. **Assignment**: Select a paper from which you will base the final assignments.	**MIDTERM -** due Sunday 3/11/18 at 11:59 p.m.
3/13/18	**No class due to Spring Break**		Paper citation due: Monday 3/19/2018 at Noon.
Week 10 3/20/18	**Lecture:** Writing and Abstract/Summary	**Assignment:** Summarize the paper you selected.	Paper Summary due Sunday 3/25/18 11:59 PM.
Week 11 3/27/18	**Lecture:** Powerpoint presentations	**Assignment:** Prepare Data Slide for presentation on 4/3/18	Data slide uploaded to blackboard by

			noon on 4/3/18
Week 12 4/3/18	**Presentations:** Data slide	**Assignment:** revise paper summary	Revision of summary due Sunday 4/8/18 at 11:59 p.m.
Week 13 4/10/18	**Lecture:** Grant writing	**Assignment:** Outline future experiments/directions of the paper you selected	Grant outline due Sunday 4/15/18 at 11:59 p.m.
Week 14 4/17/18	**Lecture:** Explanation of journal manuscript (informative-only, no related assignment)	**Assignment:** Expand outline of grant **Blackboard:** Read "How to write with style" by Kurt Vonnegut"	Expanded outline due Sunday 4/22/18 11:59 p.m.

The Final

Week 15 4/24/18	**Discussion:** "How to write with style" by Kurt Vonnegut **Lecture:** review of semester	**Assignment:** Final, Specific Aims page	**FINAL:** Specific Aims page due Sunday 5/2/18 at 11:59 p.m.

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. Website and contact information for DSP: http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html, (213) 740-0776 (Phone), (213) 740-6948 (TDD only), (213) 740-8216 (FAX) ability@usc.edu.

Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *SCampus*, the Student Guidebook, (www.usc.edu/scampus or http://scampus.usc.edu) contains the University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A.

Emergency Preparedness/Course Continuity in a Crisis

In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies.