

# Keck School of Medicine of USC

## TRGN 599 Special Topics in Translational Biotechnology

### Communicating Science: Online

**No. of Units:** 1  
**Term:** Fall 2018  
**Date/Time:** Wednesday, 12:00 pm - 12:55 pm  
**Location:** NRT 2508

**Instructor:** Llewellyn Cox, PhD  
**Office:** NRT 2506  
**Office Hours:** Wednesday 1 – 2 pm, or  
by appointment

**Contact Info:** llewellc@usc.edu  
(323) 442-3237

### Course Description

This course surveys the variety of emergent Internet-based tools that enable more efficient communication of science, data, and analytics. It covers a variety of modalities essential for successful careers in biomedical, healthcare, and related industries in the 21st Century. It discusses essential processes for the accurate transmission of scientific data, analyses, and services to diverse stakeholders both within the enterprise and external to the scientific endeavor. Emphasis will be placed on the selection of key services, development of processes to effectively manage and utilize these services, and optimization of communication strategies to ensure data is conveyed accurately and effectively.

### Learning Objectives

The objective is for students to understand the range of modalities emergent in Internet-based services for science, and their application to key areas of data dissemination in the workplace. After completing the course, students will be able to

- create and manage a professional online presence for their lab or bioscience-based business;
- choose appropriate modalities of online communications and use each correctly;
- communicate effectively with a variety of audiences using various available tools;
- engage appropriate strategies to comply with legal, ethical, and cultural competence standards.

## Course Notes

This is a project-based course that demands active learning. Reading materials will be assigned for each class. Students should read the materials before attending class. Starting from the third week of the semester, a significant portion of class time is devoted to actual online activity by students using skills learned from the previous week. Through the semester, students will either build their own web sites or make extensive contribution to the Translational Biotechnology program web site's science communication page.

## Required Readings and Supplementary Materials

This course does not require the purchase of any textbooks. Required reading materials will be distributed in class.

## Suggested Readings and Supplementary Materials

Additional suggested materials will be distributed in class. Below are resources that students are encouraged to refer to frequently.

- R. Williams, J. Tollett. *The Non-Designer's Web Book*. Peachpit Press. ISBN-13: 978-0321303370
- A. Cangiano. *Technical Blogging: Turn Your Expertise into a Remarkable Online Presence*. Pragmatic Bookshelf. ISBN-13: 978-1934356883
- Science Friday. <https://www.sciencefriday.com/>
- AAAS SciComm on Twitter. [https://twitter.com/\\_scicomm](https://twitter.com/_scicomm)
- R. Kwok. Web design: Webcraft 101 (2014) *Nature* 506, 255-257 doi:10.1038/nj7487-255a
- P. Pierce. The Science Behind Landing Page Designs. <https://www.awwwards.com/the-science-behind-landing-page-designs.html>
- D. Miller. *Building a StoryBrand: Clarify Your Message So Customers Will Listen*. HarperCollins Leadership. ISBN-13: 978-0718033323

## Description and Assessment of Assignments

Students are expected to participate actively in online and in-class discussions. Students will perform short projects to address each class's key area of focus. Students will choose no fewer than 5 different writing modalities for the semester: 2 mandatory and 3 electives. Final assessment consists of an online presence portfolio that student assembled throughout the semester, including an executive summary and a reflective self-assessment.

## Grading Breakdown

- 75% Weekly projects, 5 projects total
- 10% Participation
- 15% Final assessment

**Assignment Submission Policy**

Unless otherwise specified, all assignments are to be presented in person in class in the form of online presence. Missing classes will incur grade penalties.

**Course Website: Blackboard**

## Course Schedule: A Weekly Breakdown

Each week, a specific online functionality will be discussed. Examples of good and poor online communication for each of the particular modalities will be presented. Students will practice different modes of online presence using the subject area they choose during the first week of the semester. At the end of the semester, students will have built their own web site and have made extensive contribution to the Translational Biotechnology program website's science communication page

Date	Topic and assignment
08/22	Introduction Assignment: Student will choose a specific subject area for all their subsequent assignments.
08/29	Publishing 101: IP, copyright, and online collaboration
09/05	Essentials of Web design Assignment: Create a WordPress website and design a homepage. Link page content to the Translational Biotechnology website. This assignment is mandatory.
09/12	Essentials of social media for business Assignment: Create and populate a Facebook page AND/OR Twitter account. Embed feeds on homepage.
09/19	Managing feedback: building an effective response process Assignment: Create a feedback page for your site. Populate with functional feedback form and FAQ functionalities.
09/26	Virtual presence and effective conferencing Assignment: Host a web conference on GoToMeeting.
10/03	Cloud collaboration and cross-disciplinary teamwork Assignment: Create a team workspace on Slack.
10/10	Creating a corporate blog Assignment: Create a "Blog" page for your site. Write one 200-word article and re-blog to Translational Biotechnology blog page.
10/17	Video basics: creation, editing, and publishing online Assignment: Record and publish a 5-minute instructional video on your site.
10/24	Podcasts Assignment: Record and publish a 15-minute podcast interview.
10/31	Effective online educational content Assignment: Write and publish a Wikipedia-style educational article with functional hyperlinks and embedded media.
11/07	Livestreaming and broadcasting Assignment: Student pairs co-present a 10-minute livestream broadcast.
11/14	Measuring success: understanding and analyzing web traffic data Assignment: Write a short report summarizing the sources, patterns, and users of traffic generated on your site and social media. This assignment is mandatory.
11/21	No Class. Thanksgiving
11/28	Monetizing the web: business models and online remuneration
12/10	Final Assessment. Portfolio, including an executive summary and a reflective self-assessment, is due on this date.

## Statement on Academic Conduct and Support Systems

### Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” [policy.usc.edu/scampus-part-b](http://policy.usc.edu/scampus-part-b). Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

### Support Systems:

*Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call*

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. [engemannshc.usc.edu/counseling](http://engemannshc.usc.edu/counseling)

*National Suicide Prevention Lifeline – 1 (800) 273-8255*

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. [www.suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org)

*Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call*

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. [engemannshc.usc.edu/rsvp](http://engemannshc.usc.edu/rsvp)

*Sexual Assault Resource Center*

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: [sarc.usc.edu](http://sarc.usc.edu)

*Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086*

Works with faculty, staff, visitors, applicants, and students around issues of protected class. [equity.usc.edu](http://equity.usc.edu)

*Bias Assessment Response and Support*

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. [studentaffairs.usc.edu/bias-assessment-response-support](http://studentaffairs.usc.edu/bias-assessment-response-support)

*The Office of Disability Services and Programs*

Provides certification for students with disabilities and helps arrange relevant accommodations. [dsp.usc.edu](http://dsp.usc.edu)

*Student Support and Advocacy – (213) 821-4710*

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. [studentaffairs.usc.edu/ssa](http://studentaffairs.usc.edu/ssa)

*Diversity at USC*

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. [diversity.usc.edu](http://diversity.usc.edu)

*USC Emergency Information*

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. [emergency.usc.edu](http://emergency.usc.edu)

*USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.*

Provides overall safety to USC community. [dps.usc.edu](http://dps.usc.edu)