

Lecture	Topic	Reading
Week 1 (Jan. 23)	Introduction/Overview. Introduction to the chemical literature. Proposal assignment presented to class. Assignment of challenges/problem(s).	
Week 2 (Jan. 30)	Lecture on grants and grant writing and guidelines for assigned proposal. Students submit papers/topics that they will present in Week 5 and 6.	Assigned Papers
Week 3 (Feb. 6)	Critical reading of scientific papers. Papers presented to class by instructor, followed by discussion lead by instructor. Students submit preliminary proposal (1 page) describing research project for approval Student submit solutions to challenge/problem #1	Recommended reading to assist in grant writing: 1. Friedland & Folt 2. New & Quick
Week 4 (Feb. 13)	Selected students present solutions to Challenge/Problem #1. Discuss solutions Challenge/problem #2 is assigned	
Week 5 (Feb. 20)	Students present overviews and analysis of papers, followed by in class discussion and critique of the paper and presentation. Students turn in proposal outline – based on R21 proposal structure	Approved papers
Week 6 (Feb. 27)	Students present overviews and analysis of papers, followed by in class discussion and critique of the paper and presentation	Approved papers
Week 7 (March 5)	Responsible conduct in research: lecture and in class discussion. Student submit solutions to challenge/problem #2	Recommended reading: "On Being a Scientist", 3rd ed.
Week 8 (Mar. 12)	Spring Break – No Classes	
Week 9 (Mar. 19)	Selected students present solutions to Challenge/Problem #2. Discuss solutions. Discuss research conduct assignment. Students submit papers/topics that they will present in Week 11 and 12. Grant proposals are to be submitted at the beginning of class.	
Week 10 (Mar. 26)	Class breaks into "study sections" to evaluate and discuss student proposals. (score the proposals).	
Week 11 (Apr. 2)	Students present overviews and analysis of assigned papers, students in class then discuss the paper and critique the presentation.	Approved papers
Week 12 (Apr. 9)	Students present overviews and analysis of assigned papers, students in class then discuss the paper and critique the presentation.	Approved papers
Week 13 (Apr. 16)	Assignment: TBD Revised Grant proposals are to be submitted at the beginning of class.	
Week 14 (Apr. 23)	Class breaks into "study sections" to evaluate and discuss student proposals. (score the proposals).	
Week 15 (Apr. 30)	Study sections present review and scoring of assigned proposals. Discuss reviewed proposals, indicating strengths and weaknesses.	