Reading Quizzes and Discussions

Reading quizzes and the discussions that follow them are an important component of your participation grade in this course (together they are worth 10% of your grade!). The quizzes will be given in class on the days indicated below, and a 75 minute in-class discussion will follow each one.

It is **everyone's** responsibility to read the assigned articles and to come to class prepared to take the reading quiz and to contribute to the class discussion on the assigned days.

Additionally, you and a group of fellow students will be in charge of leading one of these discussions over the course of the semester, and will be graded on how well you prepare for and facilitate discussion. Specific instructions regarding this component are attached to this handout.

Basic descriptions of the topics for each reading quiz can be found below, and the readings themselves are linked from the course website (except for the handful of articles that I couldn't find online, which I will hand out in class). You will be given an opportunity to sign up for the discussion of your choice during the second week of class.

The reading quiz and discussion portion of your grade (10% of total) will be broken down as follows:

- 1/3 – the average of your 6 reading quiz scores
- 1/3 – your group's discussion leading score
- 1/3 – your active participation in other discussions (quality of comments will be judged over quantity)

Reading Quiz Topics by Date

(1) What is "Good Science"
Wednesday, February 1
Class will establish a working definition of "good science" to use throughout the semester.

(2) The Art of BS Detection
Wednesday, February 15
Why is this an important skill to cultivate? Where can it be used in daily life? How would one go about proving or disproving a hypothesis? What should you be on the lookout for if you want to get good at "spotting" bad science? The class will make a list of "Beware if…" statements. Moderators will lead the class in trying to classify examples of good and bad science.

(3) Alien Visitation to Earth
Wednesday, February 29
Class will look at the Betty and Barney Hill incident of 1961 from both sides and moderators will lead a discussion on the scientific and pseudoscientific aspects of the articles.

(4) The 2012 Apocalypse
Wednesday, March 21
Class will look objectively at the 2012 apocalypse predictions. Moderators will lead a discussion on the scientific and pseudoscientific aspects of the debate.

(5) The Case for Space
Wednesday, April 4
What is the point of space science research? How much money should be invested and in what? Human space exploration? Robotic missions? Telscopes? Moderators will lead a debate on space science funding.

(6) The Drake Equation
Wednesday, April 18
What are the odds that alien life exists elsewhere in the Universe? What factors should be considered when calculating the probability? What are the chances that we'll find it? What is the difference between an estimate and a guess? Moderators will lead the class in determining "pessimistic" and "optimistic" estimates for the number of intelligent civilizations in the Universe.

(7) Scientific Ethics
Wednesday, May 2
Is science good, bad or neutral? In what ways is science similar to/compatible with democracy? Moderators will lead the class in drafting a scientific bill or rights.

Reading Quiz Discussion Facilitation Instructions

You, together with 5-7 of your classmates, will lead one of the six peer-led reading quiz discussions (I will lead the first one) throughout the semester. Responsibilities related to this include:

1. You and your co-facilitators will schedule a time to meet (at office hours or before or after class) with me **at least one full week** before the scheduled discussion. You will come to this meeting having already done the readings that your classmates have been assigned for your topic. At this meeting, we will discuss the purpose of this discussion topic, how it fits in with the larger scope of the class, and any specific points that need to be emphasized. I will point you to supplemental materials that might help you in planning your discussion.
2. You and your co-facilitators will schedule one (or more) meetings to plan and organize the discussion and any materials you will be presenting/distributing. If you need any copies made, you must get these to me by the end of the class period before your discussion date.
3. You and your co-facilitators will stay for ~10-15 minutes after the class that you facilitate to "debrief" and get feedback/comments from me

The format, materials and flow of the discussion will be entirely determined by your group. I will expect you to keep the discussions flowing and to enforce the rules for discussions that we will establish as a class. I will only step in if absolutely necessary.

Possible formats for discussion that have worked nicely in the past:

(1) Small group discussions or activities led by one facilitator each. Groups come together for a whole-class discussion at the end.
(2) Debate or several mini-debates moderated by facilitators
(3) Whole class discussion led by facilitators

Regardless of the format that you choose, your group should spend at least 5 minutes at the beginning motivating the discussion and 5 minutes at the end wrapping it up. You should plan for your discussions to last the full 75 minutes allotted to you and will be expected to monitor the time yourselves. Read the rubric on the next page carefully as a guide in planning your discussion.

You and your co-facilitators will be graded according to the following criteria, and will receive a score from 1-10 in each category. **Keep these criteria in mind as you plan your discussion.**

Introduction

_____ Introduction was well-planned and easy for the class to follow

_____ Facilitators showed a thorough familiarity with and clear understanding of the explicit and implicit issues in the article

Discussion/Class Activity

_____ Discussion prompts and/or class activity was carefully planned and well thought out

_____ Facilitators did a good job of monitoring discussion and making sure the class did not digress from the pertinent issues involved in the article

_____ Facilitators did a good job of encouraging further discussion, asking probing questions, and making the discussion active

_____ Facilitators tried to involve **everyone** in the discussion

_____ Facilitators did not monopolize discussion, but instead provided thought provoking questions to spur further class discussion

Conclusion/Wrap-Up

_____ Facilitators related the issues in the article to other class discussion/course materials/course readings and to their relevance in "real life"

_____ Wrap-up was well-planned, brought together the main points discussed during the class discussion/activity and was thought-provoking

General

_____ All group members contributed significantly to facilitating. No group member was silent throughout.

Total Score: _____ / 100