Study questions for [S] Chapter 9: Technological Determinism.
1. What is the linear model of innovation?
2. What does it mean to claim "science owes more to the steam engine than the steam engine owes to science"?
3. What does it mean to say a group of people has its own tradition of knowledge?
4. How can the notion of basic research be used as a rhetorical device?
5. According to Sismondo, is scientific knowledge a driver of technology? Why or why not?
6. How does Sismondo define "technological determinism"?
7. How are technologies "deskilling"? In what sense does this make them politically invested?
8. What does it mean to say technologies have no essential features?
9. What does SCOT stand for?
10. What does "interpretive flexibility" refer to?
11. According to a SCOT analysis, what does the success of an artifact depend on?
12. Why does the denial of technological essentialism entail the denial of technological determinism?
13. What does Sismondo mean by "soft" determinism?
14. What is a "technological frame"?

Study questions for [S], Chapter 10: Laboratories.
1. What is one advantage in treating scientists as aliens?
2. What was the central question for the first round of laboratory studies in the 1970s?
3. What does the "indexical nature" of scientific reasoning and actions in the lab refer to?
4. According to Sismondo, why don't pictures of things such as electrophoresis gels provide unproblematic data?
5. What is "tacit knowledge"?
6. Can an artifical intelligence be taught tacit knowledge?
7. In what ways is the creation of orderly data a local achievement?
8. What is the significance of conversational analysis in the study of laboratories?
9. What are the four characteristics of "published images" that Sismondo discusses?
10. What was the intent of Sir Peter Medawar's question, "Is the scientific paper a fraud?"
11. What does "inversion" refer to in Latour and Woolgar's analysis of laboratories?
12. In addition to addressing questions about the production of knowledge, what else can laboratory ethnographies investigate?

Study questions for [S], Chaps 11-12: Controversies.

Chapter 11
1.   What do STS researchers mean by a "black box"?
2.   Why does STS take a symmetrical approach to studying debates?
3.   What is the "experimenters' regress"?
4.   How might the experimenters' regress have played a role in the controversy over Weber's alledged detection of gravitational waves in the 1970s?
5.   According to Sismondo, why do researchers in STS value controversy studies?
6.   What rhetorical tools do the actors in controversies employ to further their positions?
7.   What are some examples of technological controversies? Do they have straightforward technical solutions?
8.   What are five ways that controversies can be resolved?
9.   According to Sismondo, is the point of most work in STS to check or challenge scientific and technical knowledge? If not, then what is it's goal?
10. According to Sismondo, what does the symmetrical presentation of controversies highlight?
11. What is the risk of "capture" that controversy studies face?

Chapter 12
12. According to Sismondo, why is standardization more important to research in the natural sciences than research in the humanities and social sciences?
13. According to Latour and Woolgar's "cycle of credibility", what is central to the identity of most scientists?
14. What is "absolute objectivity"?
15. What is "formal objectivity"?
16. What role did standardization play in the history of units of measurement?
17. How can formal objectivity and informal expertise come into conflict?
18. Why is standardization of artifacts important in engineering?
19. What does Sismondo mean by the claim "tacit knowledge is valued locally but not publicly"?
20. How is formal objectivity used by groups of experts to gain and maintain power?
21. According to Sismondo, what is a problem with the "humanist model" that downplays formal objectivity and makes informal expertise and tacit knowledge central to science and technology?
22. What is ethnomethodology? How does Sismondo view it as a way of reconciling the formal objectivity view with the "humanist model" based on tacit knowledge?