

Econ 452 Final Exam

Greg Dow

April 13, 2022

Please answer all questions. Do not use any books, notes, or devices.

You should use graphs or math whenever they help to clarify your answers.

1. Dow, Reed, and Olewiler (2009) want to explain the origins of agriculture. First (a) give a simple summary of their argument that a non-economist would understand. Then use economic concepts to describe (b) the main assumptions of their model and (c) the main predictions obtained from their model. Finally, (d) describe the archaeological evidence they use to support their theory and discuss whether this evidence is convincing.
2. Dow and Reed (2013) want to explain the origins of inequality. First (a) give a simple summary of their argument that a non-economist would understand. Then use economic concepts to describe (b) the main assumptions of their model and (c) the main predictions obtained from their model. Finally, (d) describe the archaeological evidence they use to support their theory and discuss whether this evidence is convincing.
3. Dow, Mitchell, and Reed (2017) want to explain the origins of warfare over land. First (a) give a simple summary of their argument that a non-economist would understand. Then use economic concepts to describe (b) the main assumptions of their model and (c) the main predictions obtained from their model. Finally, (d) describe the archaeological evidence they use to support their theory and discuss whether this evidence is convincing.
4. In Chapter 14 of *Guns, Germs, and Steel*, Diamond (1997) classifies societies into bands, tribes, chiefdoms, and states. Briefly indicate how you would classify the following nine societies: Abu Hureyra, the Northwest Coast, Hawaii, the Yanomamo, the Tsembaga Maring, the Central Enga, ancient Egypt, the Inca, and Easter Island. In each case, give specific reasons for your answer. If the answers are unclear in some cases, explain why.
5. There are many theories about the origins of pristine states. Allen (1997) suggests that the key factors were agricultural technology and geographical circumscription. Diamond (1997) suggests that the key factors were population growth and the resulting need for a central authority to restrain conflicts among individuals. Dow and Reed (lecture notes) suggest that the key factors were decreased rainfall, lower commoner wages, and urban manufacturing controlled by elites. Discuss the strengths and weaknesses of each story, keeping in mind that states may have emerged for different reasons in different places.
6. Many prehistoric societies have had resource depletion problems but did not experience a complete social collapse. What characteristics of Easter Island created a risk of collapse? Do you think a collapse could have been avoided if there had been different institutions? Why do you think the islanders did not develop such institutions? Use information from Diamond (2005) and Brander and Taylor (1998) to justify your answers.

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE WRITING.

All questions have equal weight. Clear, specific, and complete answers are best.

1. Assume you need to explain the Dow et al. (2009) article about the origins of agriculture to a non-economist. Therefore you will need to define or explain any economic concepts in a way that would be understandable to someone who knows nothing about economics. Write an essay describing (a) the main features of the theory developed by Dow et al.; (b) the authors' explanation for the fact that cultivation began at Abu Hureyra in the Younger Dryas, not earlier or later; and (c) the authors' explanation for the fact that population at AH rose early in the YD, fell toward the end of the YD, and rose early in the Holocene. Then briefly explain (d) the relationship between Dow et al. (2009) and the article by Hillman et al. (2001).
2. Choose ONE of the following two articles: Dow and Reed (2013) on inequality; or Dow, Mitchell, and Reed (2017) on warfare. Again, assume you have to explain the article to a non-economist so you will need to define or explain any economic concepts in a way that would be understandable to someone who knows nothing about economics. Describe (a) the goals of the authors; (b) the assumptions of their theory; (c) the conclusions of their theory; and (d) the limitations of their theory.
3. You have seen descriptions of several societies: the northwest coast of North America (NWC), Hawaii (H), the Yanomamo (Y), the Tsembaga Maring (TM), the Central Enga (CE), and Easter Island (EI).
 - (a) We used NWC and H as examples of inequality. Do any of the other four societies listed above show evidence of inequality? Explain.
 - (b) We used Y, TM, and CE as examples of warfare. Do any of the other three societies listed above show evidence of warfare? Explain.
 - (c) We used EI as an example of resource depletion. Do any of the other five societies listed above show evidence of resource depletion? Explain.
4. Consider the following readings: (a) Allen (1997) on Egypt; (b) Johnson and Earle (2000) on the Incan empire; and (c) chapter 14 from Guns, Germs, and Steel by Jared Diamond (1997). For each of these readings, describe the theoretical framework the author(s) used to explain the formation of early states. Identify the exogenous and endogenous variables and explain all of the important cause-and-effect relationships. Finally, discuss whether the author is mainly an integration theorist or a conflict theorist, and justify your answer.
5. Describe the article by Brander and Taylor (1998) on Easter Island. Your answer should be understandable to a reader who has not yet taken Econ 452 but has the prerequisites to

take it. You should address each of the following questions: (a) what was the main goal of the authors? (b) what methods did they use? (c) what conclusions did they reach? (d) what were the main strengths and weaknesses of the article? Use the writing skills you have developed in this course.

6. Discuss each of the following statements. Use theoretical ideas and empirical evidence from Econ 452 wherever relevant, and justify any opinions you express.
 - (a) "Inequality arose in prehistory because societies needed managers to solve problems."
 - (b) "Warfare is genetically hard-wired in modern human beings, so it cannot be avoided."
 - (c) "The early states in prehistory were very similar to the modern nation-states of today."
 - (d) "If Easter Island can have a social collapse, then so can our modern global society."

Econ 452

Final Exam

Greg Dow

December 6, 2017

Please answer all questions.

1. Choose one of the following two articles: Dow and Reed (2013) on inequality, or Dow, Mitchell, and Reed (2017) on warfare. Do not write about both. Use a combination of words, equations, and graphs to describe the theoretical model presented in the article, and identify the key results derived from the model. Finally, summarize the empirical evidence used by the authors to support their theoretical conclusions.
2. Describe the most important things you learned from each of the following readings.
 - (a) Cohen (1989) on prehistoric skeletons.
 - (b) Ames (1995) on the Northwest Coast.
 - (c) Earle (1997) on Hawaii.
 - (d) Johnson and Earle (2000) on the Incan Empire.
3. Jared Diamond (1997, *Guns, Germs, and Steel*, ch. 14) believes the following things.
 - (a) A larger population causes more social complexity.
 - (b) More social complexity causes a larger population.
 - (c) Large societies need a strong central authority.
 - (d) A strong central authority imposes costs on the rest of society.For each statement, explain JD's argument and discuss whether or not it is convincing.
4. For each of the following statements, say whether it is probably true, probably false, or uncertain, and justify your answer. Cite evidence, examples, or authors where possible.
 - (a) "Hunter-gatherer technology is too unproductive to generate a food surplus."
 - (b) "Frequent warfare can occur in societies that do not have any stratification."
 - (c) "The populations of Polynesian islands are consistent with Malthusian theory."
 - (d) "Geographical circumscription is necessary for the formation of pristine states."
5. "In small-scale societies, institutions are determined by climate, geography, technology, and population." Give a detailed discussion and evaluation of this statement. Use what you have learned from the lectures and the readings, and provide specific examples.
6. Brander and Taylor (1998) have a model of population growth and resource depletion on Easter Island. Use words and equations to describe the model. Then use some graphs to summarize the predictions of the model. According to BT, why did EI collapse?

BONUS QUESTION (worth 5% of the exam grade, two sentences are enough).

A visitor came to class several times during the semester. Say who this person was, and briefly describe one thing this person said about economic prehistory.

Econ 452

Final Exam

Greg Dow

December 10, 2016

Please answer all questions.

1. Consider the first 14 chapters of Diamond's book "Guns, Germs, and Steel". What is the central question Diamond wants to answer? In a general way, describe how he answers this question. Then explain the specific role of each of the following things: (i) guns; (ii) germs; (iii) steel. Finally, discuss the strengths and weaknesses of Diamond's argument.
2. Suppose you are explaining the Dow and Reed (2013) article on the origins of inequality to an economics major who has not taken Econ 452. Write an informative summary that describes (a) the goals of the authors; (b) the methods they use; (c) the main conclusions they reach; and (d) the main strengths and weaknesses of the article. Make your answer clear, detailed, and well organized.
3. Based on the reading and the lectures, give two examples of each of the following types of society: (a) tribes; (b) chiefdoms; (c) states. Explain why you classified each society the way you did, and justify your answers. If you think there is some uncertainty about how a particular society should be classified, explain why.
4. For each of the following statements, say whether it is probably true, probably false, or uncertain, and justify your answer. Cite evidence, examples, or authors where possible.
 - (a) "Most early farmers were better off than their hunter-gatherer ancestors."
 - (b) "Warfare was more common in the Upper Paleolithic than in the Neolithic."
 - (c) "Agriculture is a necessary condition for the development of a pristine state."
 - (d) "The development of a pristine state makes most commoners better off."
5. Professor X says that warfare, inequality, and the state were all caused by population growth. Professor Y instead says that Malthusian forces would lead to an equilibrium population before warfare, inequality, or the state could arise. Therefore they must have been caused by something else. What empirical and theoretical arguments can X and Y make to support their points of view? Is there any way to combine their points of view?
6. Professor Z claims that the modern world is like Easter Island because world population is growing; the Earth has finite natural resources; it is geographically circumscribed; and individual nations are like individual tribes on Easter Island. Using Diamond's summary of the archaeological evidence for Easter Island as well as the Brander and Taylor model, evaluate the strengths and weaknesses of Z's argument. Carefully justify your comments.

BONUS QUESTION (worth 5% of the exam grade, a few sentences are enough).

What was the most surprising thing you learned in this course? Why?

Econ 452

Final Exam

Greg Dow

April 14, 2016

Please answer all questions.

1. Cohen (1989) discusses prehistoric skeletons as a source of evidence about standards of living. Describe the kinds of information that can typically be obtained from this source. Then use the evidence presented by Cohen to compare standards of living for (a) mobile hunter-gatherers; (b) sedentary hunter-gatherers; (c) early farmers; and (d) the residents of early cities. Justify your answers.
2. We have seen a number of societies with warfare, including the Northwest Coast, Hawaii, the Yanomamo, the Tsembaga Maring, and the Central Enga. Choose two of these cases, and describe each society's natural environment, food technology, social organization and warfare practices. For each case, briefly discuss whether the warfare model developed by Dow, Mitchell, and Reed (2015) does or does not help to explain warfare in that society.
3. Consider the Dow and Reed (2013) article on the origins of inequality. Describe the key assumptions of the model. What are the main exogenous variables? How does inequality arise over time in the model? Then briefly describe two cases from the empirical part of the article, and discuss how the authors use their model to explain the facts in each case.
4. Diamond (1997) classifies societies as bands, tribes, chiefdoms, and states. Describe the main characteristics of societies in each category. Then discuss Diamond's theory about how small simple societies can become larger and more complex over time. Try to be as clear as possible about the cause and effect relationships involved. Is Diamond primarily an integration theorist, primarily a conflict theorist, or is he both? Justify your answer.
5. Give some advice to Dow and Reed about how to write a paper that explains the origins of the state. What are the most important variables they should include in their model? How would these variables help to explain the origins of the state? Be clear about your economic reasoning and refer to readings discussed in class where appropriate.
6. Consider the article by Brander and Taylor (1998) about Easter Island. Provide detailed answers to the following questions: (a) what were the main goals of the authors? (b) what methods did they use in pursuing these goals? (c) what were their main conclusions? (d) what were the main strengths and weaknesses of the article?

BONUS QUESTION (worth 5% of the exam grade, a few sentences are enough).

What was the most surprising thing you learned in this course? Why?

Econ 452

Final Exam

Greg Dow

December 17, 2015

Please answer all questions.

1. Many archaeologists say that early farmers were worse off than their foraging ancestors. This is rather puzzling, because economists don't normally expect people to adopt a new technology if it makes them worse off. Describe the model proposed by Dow, Reed, and Olewiler (2009) to explain pristine agriculture, and discuss how they resolve this puzzle. Do you think agriculture eventually made people better off? If so, how? If not, why not?
2. Diamond (1997) classifies societies as bands, tribes, chiefdoms, and states. Based on the description given by Ames (1995), how would you classify the northwest coast of North America before Europeans arrived? Based on the description given by Earle (1997), how would you classify Hawaii before Europeans arrived? Carefully justify your answers.
3. Choose either Dow and Reed (2013) on inequality, or Dow, Mitchell and Reed (2015) on warfare. Do not write about both. Describe (a) the most important facts the authors were trying to explain; and (b) how they used economic logic to explain them. What are some criticisms an archaeologist or economist might make about the paper? How do you think the authors might respond?
4. For Allen's (1997) theory about the origins of the Egyptian state, describe (a) the most important facts Allen wanted to explain; and (b) how he used economic logic to explain them. Then use evidence from Johnson and Earle (2000) to discuss the similarities and differences between the early Egyptian state and the Incan Empire.
5. In his lecture on Easter Island, Dow talked about the early settlement of the island; the development of environmental problems; social collapse; and outside contact. Describe the main events at each of these four stages. Then describe the economic model offered by Brander and Taylor, and comment on whether they did a good job of explaining what happened. Finally, discuss the similarities and differences between Easter Island and the modern world as a whole. Is Diamond right to be worried about this analogy?
6. Use your writing skills to answer the following. The economics department wants a two page description of Econ 452W that can be distributed to students who have not yet taken the course. The purpose is not to evaluate the course, but just to describe it. What sort of preparation should students have before taking the course? What will the students spend most of their time doing? What are the main things students can expect to learn from the course? Give a short explanation of each point you make but don't go beyond two pages.

Econ 452

Final Exam

Greg Dow

December 14, 2012

Please answer all questions. You should mention names of authors when possible.

1. Suppose the definition of economic progress is an increase in the standard of living for a majority of people in a society. What does Cohen's paper on human skeletons imply about progress in prehistory? What does Dow and Reed's paper on inequality imply about progress in prehistory? Are these papers consistent with each other? Explain.
2. What is Abu Hureyra? Where is it located? Based on Hillman et al. (2001), what are the most important facts about AH? How do Dow, Reed, and Olewiler (2009) explain these facts? Carefully describe the economic logic of DRO's model and comment on whether their model can be applied to places other than AH.
3. Based on Ames (1995), summarize what you regard as the most important facts about the natural environment, the economy, and social and political organization on the northwest coast of North America before Europeans arrived. In which ways did the chiefs function as managers? In which ways did they function as thugs? Explain.
4. In her guest lecture, Leanna Mitchell reviewed three cases from Johnson and Earle: the Yanomamo, the Tsembaga Maring, and the Central Enga. Briefly describe the economy and organization of these groups (you don't need to do this separately for each case, just summarize what factors they all have in common). What do you think are the ultimate causes of warfare in these societies? Carefully justify your answer.
5. Allen (1997) studies the origins of the Egyptian state. Johnson and Earle (2000) study the origins of the Incan Empire. Diamond discusses the origins of the state in chapter 14 of Guns, Germs, and Steel. Do these authors have the same general theory of the origins of the state, or do their theories differ in some significant ways? Compare and contrast the three theories and explain your reasoning.
6. Easter Island and Hawaii were settled at approximately the same time by small groups of Polynesians. Europeans first arrived in both places during the 1700s. On Easter Island, they found a few people with little political organization who were all poor. On Hawaii, they found hundreds of thousands of people, very large chiefdoms, and strong inequality. Your friend wants to know why the two outcomes were so different. What do you say?

BONUS QUESTION (worth 5% of total exam grade; a few sentences are enough).

What was the most surprising thing you learned in this course? Please explain briefly.

Econ 452

Final Exam

Greg Dow

December 10, 2010

Please answer all questions. You should mention names of authors when possible.

1. Explain the theory about the origins of agriculture provided by Dow, Reed, and Olewiler (2009). You don't need to use any math, just clearly describe the sequence of events and the economic logic involved. Graphs might be helpful. Would it be possible to test this theory using data on recent foraging and agricultural societies? Why or why not?
2. "Warfare is costly due to deaths, injuries, and time taken away from food production. It has no overall benefit to society because it merely redistributes existing resources. Thus warfare in small-scale societies is not consistent with rational economic behavior and can only be explained by non-economic factors." Discuss.
3. (a) Most foraging societies do not have systematic inequality, while agricultural societies often do. (b) On the northwest coast of North America, there were foraging societies that had significant inequality. How do you explain fact (a)? Is your explanation consistent with fact (b)? Why was the northwest coast an exception?
4. Allen (1997) believes that the rapid rise of the state in ancient Egypt was triggered by the arrival of agricultural technology from southwest Asia. Why did the transition to farming lead to the state? What other factors played a role? What is the relationship between the existence of a production (or labor) surplus and the origins of the state? Explain.
5. Student A says "it is clear from chapter 14 in Guns, Germs, and Steel that Diamond sees the state as beneficial to society as a whole." Student B says "it is clear from chapter 14 that Diamond sees the state as benefiting the elite at the expense of commoners." What is the justification for each student's argument? Who is closer to being correct? Explain.
6. Jared Diamond thinks that modern human civilization on planet Earth may be in danger of a collapse similar to the one on Easter Island. Others disagree. In your opinion, what are the main similarities between these two situations? What are the main differences? How worried should we be? Hint: consider geography, natural resources, technology, population, and institutions.

BONUS QUESTION (worth 5% of total exam grade; a few sentences are enough).

What is the most important thing you learned in this course? Why?

Econ 452

Final Exam

Greg Dow

December 17, 2009

Please answer all questions. You should mention names of authors when possible.

1. Some authors claim that population growth caused the transition to agriculture. Others say this cannot be true because population reaches an equilibrium level in the long run. How do Dow, Reed, and Olewiler (2009) resolve this problem in their article "Climate Reversals and the Transition to Agriculture"? Does evidence about regional population in southwest Asia and local population at Abu Hureyra support their theory? Explain.
2. Warfare has large costs in the form of deaths, injuries, and lost labor time. On the other hand, warfare was very common among the Yanomamo, the Tsembaga Maring, and the central Enga. What were the proximate and ultimate causes of this fighting? Why were these societies unable to escape from an equilibrium involving frequent warfare?
3. In the paper by Dow and Reed (2009) called "The Origins of Inequality", the authors claim that better food production technology led to both higher population and greater inequality. Describe the main causal mechanisms in their theory, sketch the empirical evidence they use, and comment on the strengths and weaknesses of their framework.
4. According to Allen (1997), what were the main factors leading to the creation of the ancient Egyptian state? According to Johnson and Earle (2000), what were the main factors leading to the creation of the Incan Empire? Do you think these cases of state formation had similar effects on the standard of living for commoners? Explain.
5. In chapter 14 of Guns, Germs, and Steel, Jared Diamond discusses the origins of the state. Describe the main exogenous and endogenous variables in his story, and explain how they fit together. Is his theory logical? Is it consistent with the empirical evidence you have seen? Comment on the strengths and weaknesses of his framework.
6. Briefly describe the most important events on Easter Island between the time of initial settlement and the time of European contact. Then describe (a) the main environmental factors that probably contributed to the economic collapse, and (b) the main institutional factors that probably contributed to the collapse. Justify your answers.

BONUS QUESTION (worth 5% of total exam grade; a few sentences are enough).

What is the most important thing you learned in this course? Why?

Econ 452

Final Exam

Greg Dow

December 9, 2008

Please answer all questions. You should mention names of authors when possible.

1. Choose one important idea from Guns, Germs and Steel that was not discussed in class (do not choose anything from chapters 8, 9, or 14). Explain what the idea is, why it is important, and how Jared Diamond justifies or defends the idea. Then use logic and evidence to comment on the strengths and weaknesses of the idea.
2. Describe the main assumptions and conclusions of the model used by Dow, Reed, and Olewiler to explain pristine agricultural transitions. Then suppose you wanted to show that the DRO theory is false. Describe four observations that would tend to undermine the theory if they were made by future archaeologists, and explain.
3. "Foraging societies have no warfare and no inequality. Agricultural societies have both." Discuss this statement. Is it empirically correct? Is there any specific reason why agricultural food production would lead to warfare and/or inequality? Are there variables correlated with agricultural production that lead to these results? Explain using both logic and evidence. Hint: think about ultimate and proximate causes.
4. We looked at two 'pristine states': ancient Egypt and the Incan empire. For each of these cases, describe the process that led from pre-state forms of organization to the state itself. Then for each case, discuss whether it is more consistent with the idea that the state makes life better for everyone, or with the idea that the state benefits the rulers at the expense of the commoners.
5. In the Brander and Taylor model of Easter Island, there are competitive markets for food, manufactured goods, and labor. Students in Econ 301 are normally taught that competitive markets lead to an efficient allocation of resources. However, in reality Easter Island crashed and burned. Does this mean there is something wrong with the Brander and Taylor model? Or is there a market failure in their model that can explain why a disaster occurred? Could the people of Easter Island have avoided this market failure somehow? Discuss.
6. The department of economics wants you to write a 2-page description of Econ 452, which will be distributed to upper division economics majors. The department is not asking you to evaluate the quality of the course, just to describe it. Your description should cover the following points: (a) the factual information provided; (b) the main economic ideas used or developed; (c) the skills or knowledge students should have before they take the course; and (d) the new skills or knowledge students will have after they take the course. What do you say? Hint: (i) take time to think before you begin; (ii) use the strategies for good writing you have learned; and (iii) assume the reader will stop after two pages (even if you write more than that).

Econ 452

Final Exam

Greg Dow

December 6, 2007

Please answer all questions. You should mention names of authors when possible.

1. Some generalizations about foraging societies often turn out to be oversimplified or untrue when examined carefully. With this in mind, comment on the following two quotes. Use whatever combination of logic and evidence seems most appropriate.
 - (a) “Foraging societies have no property rights. Everyone has open access to all of the available natural resources.”
 - (b) “Because women in foraging societies lack access to modern birth control methods, they have no control over reproduction.”

2. Foraging societies do not keep statistics on productivity or income per capita, so it is hard to know when they are making economic progress. This is especially true for prehistoric societies where only archaeological evidence is available.
 - (a) Define the concept of “progress” in a way that would make sense to an economist, and explain what data could be used to determine whether a pre-agricultural society was “progressing” over long time periods. Your suggestions should correspond to data that archaeologists could realistically obtain. You should take into account that the same data can sometimes be interpreted in more than one way. Then summarize what we know (or can guess) about the existence or absence of progress in foraging societies from roughly 200,000 BP to 13,000 BP.
 - (b) Almost all models of foraging societies are Malthusian. Explain what this means. Then choose one of the following three models: (i) Kremer (population growth and technological change); (ii) Dow and Reed (why did progress take so long?); or (iii) Baker (structural model of the Neolithic revolution). For the particular paper you chose, explain what role the Malthusian assumption plays in the model. Would you use a Malthusian model to describe the modern world? Why or why not?

3. Some popular theories about the causes of pristine agriculture include (i) exogenous population pressure; (ii) technical innovation that increased agricultural productivity; and (iii) resource depletion due to over-hunting of large mammals.
 - (a) Briefly sketch each theory and say how it explains the emergence of agriculture.
 - (b) Discuss the main theoretical and empirical weaknesses of each theory.

4. According to Dow, Olewiler, and Reed, climate is the crucial exogenous variable that explains the transition from foraging to agriculture.
 - (a) Describe the main causal mechanisms in their theory, and explain how it can account for the empirical evidence about pristine agriculture in southwest Asia.
 - (b) Explain how DOR's theory would answer each of the following questions: (i) why was there no agriculture during the last Ice Age? (ii) why was there no agriculture during the Natufian period after the end of the Ice Age? (iii) why didn't agriculture develop in tropical regions? (iv) why didn't agriculture develop in Japan or along the northwest coast of North America?

5. Two major consequences of agriculture were more warfare and more inequality.
 - (a) Suppose you were trying to construct an economic theory or model that explained why agriculture led to intensified warfare. In words, describe the major factors you would include in your theory. Justify your answer using empirical observations.
 - (b) The Hawaiian chiefdoms, the early Egyptian state, and the Incan empire all had a lot of economic and social inequality. Briefly describe the nature of the inequality in each case. Then sketch a theory (in words) about how agriculture led to chiefdoms, states, and empires. The theory need not correspond to any particular reading from class – it should be your own best guess about cause and effect relationships based on what you have learned. Justify your answer using empirical observations.

6. Easter Island is a striking and tragic example of how resource depletion can lead to economic and social collapse.
 - (a) Describe the Brander and Taylor model of Easter Island. Be sure to explain the principal assumptions, the principal conclusions, and the general logic that links the assumptions with the conclusions. How do B&T account for the collapse on Easter Island? Is their analysis convincing? Carefully justify your answer.
 - (b) Many people, including Jared Diamond, are concerned about the parallels between Easter Island and the modern world. Describe the main similarities between the two situations, as well as the differences. Should we be worried about the similarities, or should we be reassured by the differences? Carefully justify your answer.

BONUS QUESTION (worth 5% of total exam grade; a few sentences are enough).

What is the most important thing you learned in this course? Why?