**FYS207 Earth Corps Week 2 Video Review Exercise Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Watch the class videos listed below, and answer the following review questions. Save your work, and upload answer sheet to FYS207 Canvas Course Shell in an Acrobat PDF or MS Word document format.

**Holmgren Origins of Permaculture Design**

<https://www.youtube.com/watch?v=THJWRC-1MgA>

1. What is David Holmgren’s academic background and professional expertise originally in graduate school?
2. What is the name of David’s mentor at university? What was his academic background and expertise?
3. What is one of the most productive terrestrial ecosystems in nature?
4. What year was the start of the “permaculture” concept, and how is related to modern concepts of “sustainability”?
5. Provide some examples of Holmgren’s permaculture interests and activities?
6. True or False: Holmgren works in industrial agriculture and lives a life disconnected from nature.
7. True or False: Humans survive on the basis of cooperation and collaborative social systems.
8. True or False: the landscape around us has a history of 1000’s to millions of years.
9. True or False: natural processes form the basis of permaculture design.
10. True or False: indigenous cultures form the basis of permaculture design.
11. What do you think of this guy?

**Permaculture Ethics (~2 min)**

<https://www.youtube.com/watch?v=z8vZpMg1kiE&list=PLNdMkGYdEqOCvZ7qcgS3efKm26exq5E3K&index=18>

1. List and describe with 2-3 sentences the three ethics that form the basis of permaculture.

**Energy Systems in Permaculture (~5 min)**

<https://www.youtube.com/watch?v=Gw4FINl2OTM&list=PLNdMkGYdEqOCvZ7qcgS3efKm26exq5E3K&index=40>

1. What is the first step in energy use conservation.
2. Provide three examples of passive systems that increase energy efficiency.
3. Provide three examples of permaculture principles that apply to energy conservation tactics.
4. List and discuss (2-3 sentences) the three sources of alternative energy presented in the video.
5. What are a couple examples of energy derived from biomass?
6. Why are small-scale energy production systems touted as a beneficial approach to society?

**Introduction to Topographic Maps**

<https://www.youtube.com/watch?v=zqPMYGDxCr0> (~15 minutes); answer the following questions / define the following terms.

1. Contour Line
2. Contour Interval
3. Index Contour Line
4. True or False. Steeply sloping land surfaces are associated with closely spaced contour lines.
5. True or False. Gentle sloping land surfaces are associated with more widely spaced contour lines.
6. What is the “rule of V’s” as applied to contour lines crossing rivers and streams? Draw a sketch to illustrate your answer.
7. True or False: rivers flow from low elevation to high elevation, against the force of gravity.
8. What is the rule of contour lines that represents hills or high areas on the landscape. Draw a sketch to illustrate your answer.
9. Example problem: you are located at a position half way between the 380 ft and 400 ft contour lines, using the principle of interpolation, what is your approximate elevation based on the contour intervals.
10. How are bowl-shaped depressions illustrated on the topographic map. Draw a sketch with contour lines to illustrate your answer.

**ES202 Video Review Exercise – Introduction to Topographic Profiles**

Watch Youtube Video <https://www.youtube.com/watch?v=StDYPIuk25M> (~6 minutes); answer the following questions / define the following terms.

1. What is a topographic profile, draw a sketch to illustrate your answer.
2. In drawing a profile on a Cartesian X-Y graph, what data are plotted on the Y axis? What does the X axis represent?