GEOG 4350 EXAM 3 REVIEW <u>Example Questions</u>

1. Describe the major clastic sediment sources in Denton Creek drainage basin.

2. Explain the connection between the following concepts: channel long profile; base level; aggradation; degradation; alluvial channel; bedrock channel.

3. Describe, with the aid of sketches, river bluffs and river terraces.

4. What are outliers? Name three examples from the Denton area. How do you recognize outliers in the Denton area/how do they differ from their surroundings? Draw a cross section from west to east across Denton to illustrate local bedrock outcrops, outliers and their relationship to the underlying geology.

5. Explain the connection between the Pleistocene epoch and river terraces in the North Texas region.

6. Explain how stream erosion, bedrock outcrops and outliers have formed the major features of the landscape in the Denton area.

7. Based on the examples from Denton Creek shown in class, describe how to measure discharge and suspended sediment load.

8. Describe the three main modes of sediment load transport by rivers.

9. With the aid of a diagram, describe typical geomorphological features associated with floodplains.

10. Describe the typical morphology, sedimentology and origin of river terraces.

11. Based on lab 9, describe and explain the function of the retention pond and explain how land use choices have reduced the flood hazard in the vicinity of the retention pond.

12. Based on lab 9, describe and explain the function of a channelized stream; explain how channelization reduces flood hazard and channel erosion; why is channelization criticized for environmental impacts?

13. Draw a Cross section through a watershed illustrating hydrological storages and pathways (based on Lab 7).

14. Describe factors that contribute to large rock falls of Austin Chalk on the White Rock Escarpment (based on the field trip to Dallas County).

15. Explain how the regional slope and the Red River valley have influenced drainage patterns in North Texas (based on Lab 5).

Six of these questions will be on the exam – you will select four to answer. All questions are worth the same.