**CE 2710 Quiz 1 Study Guide**

**Fall 2019**

**Self-driving Cars and the Future of Transportation**

1. Know and understand the six levels of driver assistance for self-driving cars

**Evolution of Transportation**

1. Understand the definition of transportation as being about access not mobility
2. Know the main milestone and approximate dates in the history of USA transportation (for freight, intercity travel and urban travel)

**Transportation Today**

1. Understand the differences between transportation infrastructure and transportation policy
2. Know how specific transportation policies might affect peoples use of transportation
3. Know the typical modes of freight transportation
4. Know the typical modes of intercity transportation
5. Know the factors that influence the choice of intercity mode
6. Know the factors contributing to higher train use for intercity travel in Europe versus America

**Urban Transportation**

1. Understand the role of transportation and transportation technology in the evolution of the urban form (The '30-minute' commute)
2. Know the typical types of modes of urban transportation
3. Understand why walking is considered the most important mode of transportation in a city
4. Understand the advantages of a multimodal transportation system and the complications involved in providing such a system
5. Understand the factors affecting mode choice
6. Understand the differences between the different types of urban rail systems – including differences in location of tracks and in typical operating conditions
7. Know the definition of bus rapid transit; Understand why BRT was developed; The pros and cons of BRT; The features that are used to make BRT more competitive with rail
8. Know in general terms the characteristics of a good transportation system

**Transportation and Land Use**

1. Understand the nature of the two-way interaction between transportation and land use; Understand in general terms how this interaction affects transportation planning
2. Know the specific features of transportation that affect land use and the general nature of this relationship
3. Know the specific land use factors that affect transportation use and the general nature of this relationship
4. Understand the meaning of the term Transit Oriented Development
5. Understand the transportation and landuse factors that affect the walkability of an urban area

**Transportation Planning**

1. Know the main principles of a comprehensive transportation planning effort as compared to traffic based planning
2. Know the different geographic and temporal scale over which transportation planning is undertaken
3. Understand the concept of induced traffic
4. Understand Littman’s three levels of transportation planning impacts and how this relates to induced traffic
5. Understand the differences between ‘access’, ‘mobility’ and ‘traffic’
6. Know the difference between ‘goals’ and ‘objectives’ and why the difference is important