LSCM 6030 Theory of Logistics Systems

Instructor: Dr. Brian Sauser  
Phone - Office: (940) 565-4693  
E-Mail: brian.sauser@unt.edu  
Class Hours: Th 2:00PM-4:50PM, BLB 285  
Office Hours: TBA

Course Description:  
LSCM 6030 provides an in depth synthesis of logistics research based upon the systems view of the firm and the supply chain. The course will investigate, analyze, and discuss the nature of logistics and the supply chain based upon a systems approach. Engineering, business and complex adaptive approaches to systems theory will be explored as a framework for logistics and supply chain research. The use of systems theory in engineering and the physical sciences will be provide a foundation for the course as the historical use of systems theory in business is traced. The class will research the evolution of the system theory in business beginning with a systems view of the firm and expand this to a systems theory for supply chain management. Systems theory will be used to examine the efficacy of product and service dominant logics of exchange. Using this understanding of systems theory as a basis, students will be introduced to systems-based modeling approaches and then develop a modeling and simulation approach to a systems problem. To increase vibrancy and currentness research faculty and industry experts in the area of systems theory and supply chain management will guest lecture and lead seminar discussions.

Course Objectives  
The basic objectives for this course are:

• Explore systems theory in science  
• Examine and discuss systems theory evolution in business  
• Understand systems theory as a foundation for supply chain theory  
• Understand how systems theory explains service versus product based views exchange.  
• Provide an opportunity for each student to develop a journal-quality paper and/or conduct dissertation research in the area systems theory for supply chain management  
• Understand the research, submission, review and publishing process

Class Deliverables

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<thead>
<tr>
<th>Class Deliverables</th>
<th>%</th>
<th>Grade:</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>20</td>
<td>90-100</td>
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<tr>
<td>Literature Critique</td>
<td>20</td>
<td>80-89</td>
</tr>
<tr>
<td>Literature Presentation</td>
<td>20</td>
<td>70-79</td>
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<tr>
<td>Research Paper</td>
<td>40</td>
<td>60-69</td>
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Course Policies:  
Class participation is very important and you are expected to play an active role in regularly discussing the assigned readings. Each week a list of thought questions will be emailed to you regarding that week’s assigned readings. You should consider these questions when studying your articles for class. The evaluation of class participation will be based on your level of preparation and the strength of your contributions to our discussion.
Weekly Assessment
We will have an assessment each week that a series of articles are assigned. You may bring one 8.5” x 11” sheet of paper (both sides) to class and may put any information that you think is relevant on the paper. The assessment will be an oral review and cover the readings scheduled for that day.

Literature Integration and Presentation
Students will sign up for one or more topic areas on the first day of class (total number of presentations determined by class size). Each student will make a 15-minute “discussant-type” presentation in class on the assigned day. The student will then lead the class discussion on the relevant topic and present a conceptual model of the field and a bibliography of additional readings. It should be noted that students not presenting on a given day should still come fully prepared to evaluate and extend the presented material as well as discuss the thought questions assigned for that day.

Research Paper
Students are required to write a journal quality research paper. Students may choose any topic related to systems theory and supply chain management. The purpose of this paper is to (1) allow you to immerse yourself into a particular area of systems theory and supply chain management and (2) provide you with experience in preparing and executing a study worthy of submission for publication. These papers should be original work make a contribution to the supply chain management literature. A key aspect of research is an understanding the publishing process and how topics and papers fit to a specific journal. To guide students through this process the student will work with faculty to choose a target journal, along with a topic, and submit the paper to that journal before the end of the class. Additional details will be provided in the first two weeks of class.

General Topics for the Systems Theory in Supply Chain Management

- Systems theory basis in engineering and physics
- Systems theory in business research
- Systems theory in logistics and supply chain management
- Systems thinking
- Product based competition
- Service based competition
- Total cost
- Holarchical approaches to supply chain management
- Use of systems theory and the application of chaos theory, game theory, and fuzzy logic to supply chain management