Name:

**Toyota Supply Chain Management**

Responsible:

Professor Richard Pibernik, Chair of Logistics and Quantitative Methods

<table>
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<tr>
<th>Program</th>
<th>Type</th>
<th>Term</th>
<th>ECTS</th>
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<tr>
<td>Bachelor</td>
<td>Seminar</td>
<td>Winter</td>
<td>5 CP</td>
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Time and Venue:

Will be announced on SB@home and on


Contents & Objectives:

Toyota is still considered to be a pioneer in the field of automobile production although it has recently had to cope with difficulties (e.g. recalls, production shortfalls caused by natural disasters) and had lost its dominant position in the automotive market to General Motors and Volkswagen—at least temporarily. The development of concepts, such as Lean Manufacturing, Total Quality Management, Kaizen, Kanban, etc., can be attributed completely or at least partially to Toyota. These concepts integrated in the so-called Toyota Production System (TPS) are now considered standard elements of modern production systems and are standard repertoire in business management. However, with focus on the management of production systems, they only represent one of the cornerstones of the successful Toyota model. Toyota currently operates extremely efficient global supply chains with international production sites (in Japan, USA, France, Brazil, Argentina, Malaysia, Pakistan, etc.), globally distributed suppliers and a worldwide dealer network. Toyota implemented not only efficient production (with TPS), but also sustained efficient design and coordination of globally distributed value-added activities. To accomplish this, Toyota has consistently developed its management philosophy and the principles underlying TPS and integrated these in the “Toyota supply chain”.

While we were able to learn from Toyota in the past as to how production systems can be designed, today we can learn from Toyota as to how complex global supply chains in the automotive industry – but also in other industries – should be designed and coordinated. Notably its planning principles are – despite the greater complexity – easy to understand, simple to implement and are based on simple ‘ground rules’. The aim of this seminar is to learn from the Toyota supply chain.

Participants of the seminar will develop a comprehensive view of the Toyota supply chain, analyze the core principles and key planning areas (i.e. Mix Planning, Sales & Operations Planning, Demand Planning, etc.) in detail, and learn how they differ from "conventional" approaches. In addition, we will deal with an important question: How do the individual elements of the Toyota supply chain fit together to facilitate Toyota in coordinating a complex global network successfully?

The seminar will be based on the book "Toyota Supply Chain Management - A Strategic Approach to the Principles of Toyota's Renowned System" [1]. This excellent book covers the Toyota supply chain, its management principles and the individual planning areas. The participants of the seminar will work on individual chapters of the book and examine important elements of the Toyota supply chain as part of their seminar work. In addition to a concise presentation of Toyota planning principles, all participants are required to determine and present the connections and dependencies between their own topics and the planning problems of other groups. As part of a final workshop, these individual elements are combined to create a holistic understanding and to facilitate critical analysis.

Prerequisites:

Basic knowledge of Production, Logistics, Purchasing.
**Course structure:**

<table>
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<tr>
<th>Session</th>
<th>Content</th>
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<tr>
<td>1</td>
<td>Introductory event: participation in workshop; topic assignment; exchange in groups</td>
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<tr>
<td>2</td>
<td>Scientific Writing seminar: participation in workshop (this requires your additional registration for the “Scientific Writing” seminar)</td>
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<td>3</td>
<td>Intermediate workshop: the groups meet and discuss the interdependencies of their topic with other subject areas. Each group prepares a one-page results protocol and sends it to Maya Michels (<a href="mailto:maya.michels@uni-wuerzburg.de">maya.michels@uni-wuerzburg.de</a>).</td>
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<td>4</td>
<td>Final block course: presentation and active participation in discussion of all topics</td>
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**Literature:**


**Grading:**

1. **Seminar paper** (75% of final grade): To pass the seminar, a seminar paper must be completed. The paper should be approximately 15 pages double-spaced (excluding bibliography and notes; Times New Roman, font size 12, Author-Date citing style). The basic requirements are discussed in the introductory meeting and in the chair’s seminar “Scientific Writing” (mandatory). The seminar paper can be written either in German or in English.

2. **Presentation** (25% of final grade): Participants must present their work in a joint final workshop (block course). The group presentation of each topic should take 15 minutes in length and serve to explain the relevant problems and possible solutions to other participants. In evaluating the presentation, focus will be placed on how precisely and comprehensible the problem is explained and how convincingly the approach (or possible criticism) is presented. In addition, it will be assessed how clearly the connection to other topics is analyzed and presented. Following the presentation, 10-15 minutes of time will be spent on discussion.

**Contact:**

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Dr. Richard Pibernik, Professor (richard.pibernik@uni-wuerzburg.de)