Socio-Technical Information Systems Design
(englischsprachiges Modul)

Modulnummer 32291	Workload 300 h	Credits 10	Häufigkeit des Angebots jedes Semester	Dauer 1 Semester

1	**Lehrveranstaltungen**		
	Einheit	**Titel**	**Workload**
	1	Socio-Technical Information Systems Design	300 h

2	**Lernergebnisse (learning outcomes) / Kompetenzen**
	In this module, students will acquire the following skills:

1. Students possess a fundamental knowledge about systems theory and how socio-technical information system fit within this theoretical framework. This encompasses the knowledge on several relevant definitions and how the social and the technical system interact within a socio-technical information system to achieve mutual gain as well as differentiating between information technology and information systems.

2. Students understand the historical roots of the socio-technical paradigm and how it has evolved since its inception in the post World War 2 Tavistock Institute.

3. Students develop a deep understanding about theoretical perspectives on socio-technical information systems, such as institutional theory, actor-network theory, and sociomateriality. They understand how these theoretical lenses relate to the socio-technical view and which aspects they address.

4. Students possess fundamental knowledge on organizations and their processes within a socio-technical lens. They grasp how business processes are identified, modeled, monitored, and improved.

5. Students understand how socio-technical thinking can improve information technology and information systems development. Students have acquired knowledge on socio-technical development methods.

6. Students understand how the individual and his or her motivations, aspiration, expectations, and needs influence the design, development, and adoption of information technology and information systems.

3	**Inhalte**

In this module, we will explore the complex interactions between the multiple social and technical actors in a socio-technical information system. The module is divided into multiple units focusing on the individual parts of a socio-technical information system. Chapter 2 – Systems Theory & Information Systems – introduces basic terminology and defining the important terms for this module. Chapter 3 –Background and History – explains the historical background of the socio-technical approach originating in the Tavistock Institute in Great Britain. Chapter 4 – Theoretical Perspectives and Lenses – explores theoretical perspectives on socio-technical systems. The chapters 5 (The Organization), 6 (Information Technology), and 7 (The Individual) then focus on each of the building blocks of the socio-technical information system, with chapter 5 covering the organization, chapter 6 addressing the technology, and chapter 7 investigating the role of the individual in a socio-technical context.

The module is divided into 7 chapters. The chapters encompass the following topics:

1. Introduction: This chapter shows the motivation for socio-technical information systems

2. Systems Theory: This chapter covers important basic terminology and shows why it is important to study socio-technical information systems. Through a deep dive into systems theory, the theoretical framework for the following units is set.

3. Historical Background: This chapter explains the origins of the socio-technical paradigm. Starting from a purely technical view with Frederick Taylor's Scientific Management, the negative

consequences of a purely technical paradigm are shown with the aftermath of the Second World War. The socio-technical approach as well as its evolution over the following years is explained.

4. Theoretical Perspectives and Lenses on Socio-Technical Information Systems: This chapter shows how the socio-technical systems approach in Information Systems relates to various theories.

5. The Organization: This chapter investigates how organizations act as socio-technical systems and serve as the surrounding structure to the individuals' work with socio-technical information systems. It explores the importance of organizational structure and organizational processes.

6. Information Technology: This chapter covers the socio-technical design of information technology and information systems. Ingrained in theoretically-based design frameworks, crucial steps in a human-centered design as well as different tools are shown.

7. The Individual: This chapter covers perspectives on the individual within socio-technical information systems. Individuals, through their motivations, attitudes, and behaviors impact the successful application and use of socio-technical information systems to a large extent. This chapter covers different psychological factors of the individual that influence information system adoption and use.

4	**Lehrformen**
	Fernstudium mit Betreuung, zeitlich und räumlich flexibel, mit folgenden Elementen:
	– didaktisch aufbereiteter Studientext mit Übungsaufgaben und Beispielen (gedruckt sowie als pdf-Datei)
	– Moodle-Lernumgebung mit zusätzlichen Vorlesungs- und Übungselementen
5	**Teilnahmevoraussetzungen**
	Formal: Gemäß Prüfungsordnung des jeweiligen Studienganges
	Inhaltlich: Keine speziellen Voraussetzungen
6	**Prüfungsformen**
	Zweistündige Abschlussklausur
7	**Voraussetzungen für die Vergabe von Kreditpunkten**
	Die Leistungspunkte werden vergeben, wenn die Prüfungsklausur bestanden worden ist. Voraussetzung für die Teilnahme an der Prüfungsklausur ist das Bestehen mindestens einer von zwei Einsendearbeiten.
8	**Verwendung des Moduls**
	Masterstudiengang Wirtschaftswissenschaft Masterstudiengang Wirtschaftsinformatik Masterstudiengang Wirtschaftswissenschaft für Ingenieur/-innen und Naturwissenschaftler/-innen Akademiestudium
9	**Stellenwert der Note für die Endnote**
	Gemäß Prüfungsordnung des jeweiligen Studienganges
10	**Modulbeauftragte/r und hauptamtlich Lehrende**
	Univ.-Prof. Dr. Julia Krönung
11	**Sonstige Informationen**
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