



MODULHANDBUCH

Master Management of Textile Trade and Technology, M.Sc.

- PO 2025 -

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VORWORT

Der englischsprachige konsekutive Masterstudiengang **Management of Textile Trade and Technology** richtet sich an Interessierte mit einem abgeschlossenen Bachelorstudium aus den Fachgebieten Textil- oder Bekleidungsmanagement bzw. -technik. Er bereitet Studierende auf Führungspositionen in der globalen Textil- und Bekleidungsbranche vor. Im Mittelpunkt stehen praxisnahe Projektarbeiten, die oft in Zusammenarbeit mit der Industrie durchgeführt werden, sowie die Einbindung in laufende Forschungsprojekte am Forschungsinstitut der Hochschule.

Studierende entwickeln analytisches und vernetztes Denken und werden auf die Herausforderungen einer globalisierten Welt vorbereitet. Je nach Studienrichtung vertiefen sie sich in Themen wie **Finanzmanagement**, **Supply Chain Management**, **internationalen Handel** oder **spezielle textile Technologien**. Der Studiengang gliedert sich in zwei Studienrichtungen:

Trade and Retail

Diese Studienrichtung bietet einen umfassenden Überblick über den internationalen Einzelhandel und vermittelt fortgeschrittenes Wissen im Handelsmarketing. Schwerpunkte sind:

- Strategien zur Internationalisierung und Expansion von Modehändlern
- Globale Schlüsseltrends im Handelsmarketing
- Integration und Optimierung von Online- und Offline-Vertriebskanälen
- Rollen und Beziehungen zwischen Verkäufern, Einkäufern und Merchandisern

Absolventen sind in der Lage, innovative Marketing- und Verkaufsstrategien zu entwickeln und erfolgreich umzusetzen, um Unternehmen bei der Internationalisierung zu unterstützen und auf sich wandelnde Marktanforderungen zu reagieren.

Technical Textiles

Die Studienrichtung Technical Textiles fokussiert auf die wachsende Bedeutung technischer Textilien in Bereichen wie Mobilität, Bauwesen, Freizeit und Arbeitsschutz. Beispiele sind:

- Funktions- und Arbeitskleidung
- Schusssichere Westen oder Schnittschutzmaterialien
- Textilbasierte Bauteile und Dachkonstruktionen

Die Entwicklung, Prüfung und Implementierung zukunftsweisender technischer Textilien stehen hier im Mittelpunkt.

QUALIFIKATIONSZIELE

- **Internationales Handelsmanagement**
Studierende können Strategien zur Internationalisierung von Textil- und Modehändlern entwickeln und geeignete Vertriebskanäle für neue Märkte und Kunden identifizieren. Sie wissen, wie globale Schlüsseltrends und moderne Marketingmethoden im internationalen Einzelhandel erfolgreich eingesetzt werden.
- **Supply Chain und Finanzmanagement**
Studierende können komplexe Prozesse im Supply Chain Management analysieren und optimieren sowie fundierte Entscheidungen im Finanzmanagement treffen. Sie wissen, wie diese Bereiche zur Effizienz und Wettbewerbsfähigkeit von Unternehmen beitragen.
- **Technologische Innovationskompetenz**
Studierende können neue textile Technologien entwickeln und bewerten, insbesondere im Bereich technischer Textilien für Mobilität, Bauwesen und Arbeitsschutz. Sie wissen, wie diese Materialien auf spezifische Anforderungen angepasst und getestet werden.
- **Projekt- und Teamarbeit in interdisziplinären Kontexten**
Studierende können komplexe Fragestellungen in internationalen und interdisziplinären Teams bearbeiten und Lösungen in Kooperation mit Industriepartnern umsetzen. Sie wissen, wie sie dabei praxisnahe und forschungsorientiertes Arbeiten verbinden.
- **Forschungs- und Entwicklungskompetenz**
Studierende können anwendungsorientierte Forschungsprojekte durchführen und die Ergebnisse auf komplexe industrielle Problemstellungen übertragen. Sie wissen, wie sie wissenschaftliche Methoden zur Entwicklung innovativer Produkte und Prozesse einsetzen.

ABSOLVIERENDENPROFIL

Der Studiengang Management of Textile Trade and Technology qualifiziert Absolvierende, die Fachwissen in den Bereichen Handelsmanagement, Supply Chain, Technologie und Forschung vereinen und in der Lage sind, innovative Lösungen in einem globalen und dynamischen Umfeld umzusetzen. Absolventinnen verfügen über folgende Kompetenzen:

Internationales Handelsmanagement:

- Entwicklung von Internationalisierungsstrategien für Textil- und Modeunternehmen.
- Identifikation und Optimierung geeigneter Vertriebskanäle für neue Märkte und Zielgruppen.
- Anwendung globaler Schlüsseltrends und moderner Marketingmethoden zur Steigerung des Erfolgs im internationalen Einzelhandel.

Supply Chain und Finanzmanagement:

- Analyse und Optimierung komplexer Prozesse im Supply Chain Management, um Effizienz und Wettbewerbsfähigkeit zu steigern.
- Treffen fundierter Entscheidungen im Finanzmanagement zur Unterstützung strategischer Unternehmensziele.

Technologische Innovationskompetenz:

- Entwicklung und Bewertung neuer textiler Technologien, insbesondere im Bereich technischer Textilien für Mobilität, Bauwesen und Arbeitsschutz.
- Anpassung und Prüfung innovativer Materialien gemäß spezifischer Anforderungen.

Projekt- und Teamarbeit in interdisziplinären Kontexten:

- Bearbeitung komplexer Fragestellungen in internationalen und interdisziplinären Teams.
- Umsetzung praxisnaher und forschungsorientierter Projekte in Zusammenarbeit mit Industriepartnern.
- Anwendung von Projektmanagement-Methoden zur effizienten Steuerung und erfolgreichen Umsetzung von Teamprojekten.

Forschungs- und Entwicklungskompetenz:

- Durchführung anwendungsorientierter Forschungsprojekte und Übertragung der Ergebnisse auf industrielle Problemstellungen.
- Nutzung wissenschaftlicher Methoden zur Entwicklung innovativer Produkte und Prozesse.

TRADE AND RETAIL

Studienverlaufsplan

M.Sc. Management of Textile Trade and Technology - Trade and Retail -

Regelstudienzeit: 3 Semester / 90 CP – Studienstart: WiSe

SEM								CP
1	ADVANCED MANAGE- MENT SKILLS	GLOBAL MARKETING			INVESTMENT APPRAISAL AND FINANCIAL MANAGEMENT		ELECTIVES	49
	ORGANI- SATIONAL BEHAVIOUR	GLOBAL TRADE			INTERNATIONAL ACCOUNTING			
	6 CP	5 CP			6 CP			
2	ENVIRON- MENTAL MANAGE- MENT AND BUSINESS ETHICS	RETAIL MARKETING	TRADE LAW	GLOBAL LOGISTICS	MASTER PROJECTS	INNOVATIVE MATERIALS AND PRODUCTS		
		INTERNATIO- NAL RETAIL		PROCURE- MENT AND SOURCING	APPLIED PHILOSOPHY OF SCIENCE			
	3 CP	5 CP	2 CP	5 CP	6 CP	5 CP	6CP	
2	RESEARCH & DEVELOPMENT PROJECT							8
3	MASTER THESIS + COLLOQUIUM							33

M.Sc. Management of Textile Trade and Technology - Trade and Retail -

Regelstudienzeit: 3 Semester / 90 CP – Studienstart: SoSe

SEM								CP
1	ENVIRON- MENTAL MANAGE- MENT AND BUSINESS ETHICS	RETAIL MARKETING	TRADE LAW	GLOBAL LOGISTICS	MASTER PROJECTS	INNOVATIVE MATERIALS AND PRODUCTS	ELECTIVES	49
		INTERNATIO- NAL RETAIL		PROCURE- MENT AND SOURCING	APPLIED PHILOSOPHY OF SCIENCE			
	3 CP	5 CP	2 CP	5 CP	6 CP	5 CP		
2	ADVANCED MANAGE- MENT SKILLS	GLOBAL MARKETING			INVESTMENT APPRAISAL AND FINANCIAL MANAGEMENT			
	ORGANI- SATIONAL BEHAVIOUR	GLOBAL TRADE			INTERNATIONAL ACCOUNTING			
	6 CP	5 CP			6 CP		6CP	
2	RESEARCH & DEVELOPMENT PROJECT							8
3	MASTER THESIS + COLLOQUIUM							33

Modulname	Modulcode
Environmental Management and Business Ethics	MTTT25-30/30
Modulverantwortliche/r	Fachbereich
Bastian Quattelbaum	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
1. Semester	2	1	Pflichtfach	3.0
All Creditpoints 90 716 715 2017				
1. Semester	2	1	Pflichtfach	3.0
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	2	1	Pflichtfach	3.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	2	1	Pflichtfach	3.0

Empfohlene Voraussetzungen
none

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Environmental Management and Business Ethics	Pflicht	2.00	90
Summe (Pflicht und Wahlpflicht)			2.00	90

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: Students acquire essential skills in managing environmental responsibilities in the textile and clothing industry, with a focus on sustainability and regulatory compliance. HOW: • Learning to identify relevant environmental laws and regulations, • Applying process-integrated environmental protection programs in the industry, • Understanding the risks associated with hazardous chemicals in textile production • Exploring the principles of ecology and sustainability • Enhancing communication and teamwork skills through collaborative presentations. WHY:

...to equip students with the necessary tools to implement sustainable practices and decision-making in the textile and clothing industry, supporting their professional development in a responsible and compliant manner.

References:

- ISO standards
- OECD Due Diligence Guidance for Responsible Business Conduct (Online)

Zu erbringende Prüfungsleistung

Klausur, 60 Min.

Stellenwert der Modulnote in der Endnote

(3CP / 53CP) * 0,65

Modulname		Modulcode	
Environmental Management and Business Ethics		MTTT25-30/30	
Veranstaltungsname		Veranstaltungscode	
Environmental Management and Business Ethics		MTTT25-30/MTTT-30	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Bastian Quattelbaum	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung
Inhalte
Students in the Environmental Management and Business Ethics lecture will develop essential skills for managing environmental responsibilities within the textile and clothing industry, focusing on sustainability and regulatory compliance. They will learn to identify relevant environmental laws, implement process-integrated protection programs, assess environmental risks, and explore ecological principles while enhancing communication and teamwork through collaborative presentations. This training aims to equip students to adopt sustainable practices and make responsible decisions in their professional careers. References: - ISO standards - OECD Due Diligence Guidance for Responsible Business Conduct (Online)

Modulname	Modulcode
Financial Policy	MTTT25-130/130
Modulverantwortliche/r	Fachbereich
Ute Ständer	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 715 2017				
1. Semester	2	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	2	1	Pflichtfach	6.0

Empfohlene Voraussetzungen
Basic knowledge: Financial Accounting required

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Investment Appraisal and Financial Management	Pflicht	4.00	120
2.	International Accounting	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			6.00	180

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: Students acquire essential skills in managing financial procedures in a business environment, focusing on investment decisions and financial reporting. WITH WHAT: ...by - Evaluating investments using static and dynamic methods, including discounted and compounded cash flow techniques, - Analysing the impact of taxation on investment decisions, - Comparing various financing methods, - Learning to prepare and interpret financial statements in accordance with International Financial Reporting Standards (IFRS), - Recording financial transactions and applying international accounting rules, - Understanding the historical development of IFRS and its role in harmonizing global financial reporting. WHAT FOR: ...

to equip students with the financial management tools and analytical skills necessary for making informed investment decisions and interpreting financial statements in a global business environment.

Zu erbringende Prüfungsleistung

Klausur, 90 Min.

Stellenwert der Modulnote in der Endnote

$(6\text{CP} / 53\text{CP}) * 0,65$

Modulname		Modulcode	
Financial Policy		MTTT25-130/130	
Veranstaltungsname		Veranstaltungscode	
Investment Appraisal and Financial Management		MTTT25-130/MTTT-130	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Ute Ständer	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
4.00	60	60	120

Lehrform
Vorlesung/Übung
Inhalte
Introduction into Investment Decisions • Characteristics of Investment Projects • Investment and Finance Decisions - Classification of Investment Projects • Stages of the Investment Process Basic methods of investment appraisal • Static Methods (Cost Comparison Method, Profit Comparison Method, Average Rate of Return Method, Static Payback Period Method) • Discounted Cash Flow Methods (Net Present Value Method, Annuity Method, Internal Rate of Return Method, Dynamic Payback Period Method) Advanced Methods and Application of Investment Appraisal • Compounded Cash Flow Methods (Compound Value Method, Critical Debt Interest Rate Method, Visualisation of Financial Implications (VoFI) Method) • Taxation Basics of financial management
Literatur
Götze, U./Northcott, D./Schuster, P.: Investment Appraisal, 2nd. Ed. Berlin, Heidelberg, 2015 Röhrich, M.: Fundamentals of Investment Appraisal, 2nd. Ed., München 2014

Modulname		Modulcode	
Financial Policy		MTTT25-130/130	
Veranstaltungsname		Veranstaltungscode	
International Accounting		MTTT25-130/MTTT-130	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Ute Ständer	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester		Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung/Übung
Inhalte
Introduction • Financial Statements • Accounting Mechanisms Basics of International Financial Reporting Standards (IFRS) • Structure of the IFRS Foundation • Process of Standard Setting IASB Framework • Objective of Financial Statements • Underlying Assumptions • Qualitative Characteristics • Elements of Financial Statements Presentation of financial statements • General Requirements • Components of Financial Statements (Statement of Financial Position, Statement of Profit or Loss and Other Comprehensive Income, Statement of Changes in Equity, Statement of Cash Flows, Notes) Non-current assets • Intangible Assets (Recognition and Measurement, Internally Generated Intangible Assets, Measurement after recognition) • Property, Plant, and Equipment (Recognition and Measurement, Measurement after Recognition) • Impairment Loss

Inventories

- Definitions
- Measurement
- Cost Formulas

Provisions

- Recognition
- Measurement

Literatur

Ankarath, N., Mirza, Abbas A.: Understanding IFRS fundamentals: International Financial Reporting Standards, 2nd ed., Wiley 2022

Kieso, D. E., Weygandt, J. J./Warfield, T. D., Intermediate Accounting: IFRS Edition, 4th. ed., Wiley & Sons 2020

Weygandt, J. J., Kimmel, P. D., Kieso, D. E.: Financial accounting with International Financial Reporting Standards, 5th. ed., Wiley & Sons 2022

Modulname	Modulcode
Innovative Materials and Products	MTTT25-50/50
Modulverantwortliche/r	Fachbereich
Alexander Büsgen	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail
Master Man.ofTextileTradeTech 714 3 (2010)
Master Man.ofTextileTradeTech 714 7 (2010)
Master Man.ofTextileTradeTech 715 3 (2010)
Master Man.ofTextileTradeTech 715 7 (2010)

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2010				
1. Semester		1	Pflichtfach	5.0
All Creditpoints 90 716 715 2010				
1. Semester		1	Pflichtfach	5.0
All Creditpoints 90 716 714 2017				
2. Semester	1	1	Pflichtfach	5.0
All Creditpoints 90 716 715 2017				
2. Semester	1	1	Pflichtfach	5.0
Kreditpunktekonto FB07 MTTT - PO2025				
2. Semester	1	1	Pflichtfach	5.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
2. Semester	1	1	Pflichtfach	5.0

Empfohlene Voraussetzungen
basic knowledge about textiles

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Innovative Materials and Products	Pflicht	4.00	150
Summe (Pflicht und Wahlpflicht)			4.00	150

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT

1. Execute a formal procedure and method for selecting, evaluating and designing a new and innovative product. Execute an idea screening, an evaluation and a selection of best ideas. Apply a cost and technology rating for alternatives and variations of a new product idea. Apply and use this method for any new product development task.
2. Basic understanding of two modern textile areas offering fast and dynamic growing markets: composite material reinforcements and smart textile materials. Know the production methods and properties of these materials. Knowledge about use, advantages and disadvantages of composites and of smart textiles. Apply these textiles to fulfill individual product requirements.

HOW

Formal procedure and method for new product developments: idea screening and conceptual design.

Group work (6 to 8 members) with individual product development and application of idea screenings and conceptual design method to an individual new product idea.

WHY

Conduct an effective method of new product development for textiles.

Zu erbringende Prüfungsleistung

examination/report

Stellenwert der Modulnote in der Endnote

$(5CP / 53CP) \cdot 0,65$

Modulname		Modulcode	
Innovative Materials and Products		MTTT25-50/50	
Veranstaltungsname		Veranstaltungscode	
Innovative Materials and Products		MTTT25-50/MTTT-50	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Alexander Büsgen	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
4.00	60	90	150

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
1. Innovative Product Development • strategies and procedures for new product development, • Idea generation procedures and idea screening methods • Calculation of manufacturing costs and cost price (overhead calculation) • Conceptual design: creation of sub tasks by breaking down the main task, finding of alternative solutions for each sub task, cost- and quality evaluation for each suggestion, calculation of optimized results 2. Composite materials - materials, properties, applications - manufacturing processes of composites - textile reinforcements 3. Smart Textiles - sensoric textiles (ECG, keyboard, smart carpet) - light emitting textiles - thermal active textiles
Studien-/Prüfungsleistung
written examination and report
Literatur
Büsgen, A., New product development in interior textiles, Chapter 8, pp 132 – 155 in: L. Horne (ed). New Product Development in Textiles: Innovation and Production, Woodhead Publishing Ltd., Oxford 2012 Büsgen, A., Innovative Textiles for Seating, Chapter 11, pp 258 - 273 in: T. Rowe (ed)., Interior Textiles - Design and developments, Woodhead Publishing Ltd., Oxford 2009 Mogahzy, Y.E.EL, Engineering textiles, Woodhead Publishing Ltd, Cambridge 2009 Tao, Xiaoming (ed): Smart Fibres, Fabrics and Clothing, Woodhead Publishing Ltd., Oxford 2001

van Langenhove , Lieva (ed): Smart textiles for medicine and healthcare, CRC Press ,
University of Virginia, 2007
McCann, J., Bryson, D. (ed): Smart clothes and wearable technology, Elsevier, 2009

Modulname	Modulcode
Management	MTTT25-80/80
Modulverantwortliche/r	Fachbereich
Monika Eigenstetter	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
1. Semester	2	1	Pflichtfach	6.0
All Creditpoints 90 716 715 2017				
1. Semester	2	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	2	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	2	1	Pflichtfach	6.0

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Advanced Management Skills	Pflicht	4.00	120
2.	Organizational Behaviour	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			6.00	180

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: understand how an organisation is embedded in market, social, technical and regulatory frameworks, know the socio-technical basis of an organisation can name stakeholders and their expectations can derive strategies, e.g. for product development, based on risk assessments can derive organisational and personnel strategies from this have developed basic leadership techniques for international management acquire essential skills in organizational behavior including leadership and management, focusing on effectively leading teams and making decisions in a global business environment. How: ...by Reading scientific articles & presenting the main contents

Group work Design thinking Using methods of empirical Research (e.g. interviews) Studying and reading scientific articles & reproduction and selection of contents to a team of peer students in a simulated business environment about organizational behaviour WHY: ...to equip students with the management skills needed to lead teams and make informed decisions, fostering sustainable organizational growth in both domestic and global contexts
Zu erbringende Prüfungsleistung
Klausur, 60 Min. / Portfolioarbeit
Stellenwert der Modulnote in der Endnote
(6CP / 53CP) * 0,65

Modulname		Modulcode	
Management		MTTT25-80/80	
Veranstaltungsname		Veranstaltungscode	
Advanced Management Skills		MTTT25-80/MTTT-80	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Monika Eigenstetter	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
4.00	60	60	120

Lehrform
Vorlesung
Inhalte
• St. Gallen Management Approach • Megatrends and scenarios • Risk and stakeholder management • Regulations of the EU Green Deal • Design Thinking • Innovation Management via CapSEM model • ESG management and reporting
Studien-/Prüfungsleistung
Klausur/Portfolioarbeit
Literatur
Carroll, A. & Brown, J. (2022) Business & Society: Ethics, Sustainability & Stakeholder Management: Ethics, Sustainability, and Stakeholder Management Magerholm Fet A. & Knudson, H. (2023). The CapSEM Model. Springer Rugg-Stürm, J & Grand, S. (2019). Managing in a complex world. utb EU Green Deal: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

Modulname		Modulcode	
Management		MTTT25-80/80	
Veranstaltungsname		Veranstaltungscode	
Organizational Behaviour		MTTT25-80/MTTT-80	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Marcus Weber	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
Content • Foundation of Individual Behavior • Attitudes and Job Satisfaction • Personality and Values • Emotions and Moods • Learning to apply decision-making strategies, • Developing techniques to lead and motivate employees, • Convincing customers and stakeholders, • Considering intercultural and ethical aspects in management, • Recognizing human behavior patterns and objectives, • Using management tools and methods to guide departments or companies, • Balancing economic, social, and ethical factors in leadership
Literatur
Robbins, S. R.; Judge, T.A.: Organizational Behavior, Int. 19th Ed., Pearson 2018 (or later)

Modulname	Modulcode
Marketing and Trade	MTTT25-120
Modulverantwortliche/r	Fachbereich
Ute Ständer	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	2	1		7.0

Empfohlene Voraussetzungen

none

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Trade and Company Law	Pflicht	2.00	60
2.	Global Marketing	Pflicht	2.00	75
3.	Global Trade	Pflicht	2.00	75
Summe (Pflicht und Wahlpflicht)			6.00	210

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)

WHAT:

Students acquire essential skills in global marketing and trade and the application of commercial and company law.

WITH WHAT:

...by Learning to analyze key global marketing environment Evaluating global market conditions, trade regulations (WTO, GATT, MFA), and their impact on retail Applying marketing instruments in global marketing context Assessing global branding strategies for international fashion retailers Developing skills in working within multinational teams and understanding corporate management in global contexts. Studying the German legal system, including public and private law, basic rights, and trade law, Reviewing civil code topics such as contract formation, breaches of contracts, and property law, Learning about commercial law, including power of representation, the commercial register, and representatives of a businessman, Examining company law with a focus on partnerships and corporations.

WHAT FOR:

...to prepare students to navigate the complexities of international retail and trade, enabling them to make informed decisions and apply legal and marketing strategies effectively in a global context.

Stellenwert der Modulnote in der Endnote

$(7CP / 53CP) * 0,65$

Modulname		Modulcode	
Marketing and Trade		MTTT-120	
Veranstaltungsname		Veranstaltungscode	
Trade and Company Law		MTTT25-121	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Ute Ständer	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
Basics - German Legal System - Basic Law - Basic Rights - Public and Private Law Civil Law - Capacity to Contract, - Declaration of Intent - Challenge - Agency - Limitation - Breaches of Contracts - Security Interests - Good Faith Acquisition Commercial Law - Businessman - Commercial register - Representatives of a Businessman Company Law - Partnerships - Corporations
Studien-/Prüfungsleistung
Klausur, 60 Min.
Literatur
Fisher, Howard D., The German Legal System and Legal Language, 7th Ed., New York 2021 Wirth, Gerhard, Arnold, Michael, Morshäuser, Ralf, Greene, Mark, Corporate law in Germany, 4th. Ed., München 2024

Modulname		Modulcode	
Marketing and Trade		MTTT-120	
Veranstaltungsname		Veranstaltungscode	
Global Marketing		MTTT25-122/MTTT-122	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Felix Brünker	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	45	75

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
• Extended understanding of the term Marketing in a global context • Global Marketing Environment • Balancing Global Synergies • Developing Global Marketing Strategy • Segmentation, Targeting, and Positioning in Global Markets • Role of Digitalization in Global Marketing • Global Products and Service Offerings • Global Branding and Communications • Global Consumer Behaviors • Role of Brand Identity in Global Brand Management • Responsibility and Sustainability in Global Marketing
Studien-/Prüfungsleistung
Global Marketing and Trade: written examination, 90 Min.
Literatur
Hollensen, S. (2016). Global Marketing. (7th ed.). Pearson International. Burmann, C., Halaszovich, T., Schade, M., & Piehler, R. (2024). Identity-Based Brand Management. Springer Fachmedien Wiesbaden Schlegelmilch, B. B. (2022). Global Marketing Strategy: An Executive Digest (2nd ed. 2022). Springer International Publishing Czinkota, M. R., Kotabe, M., Vrontis, D., & Shams, S. M. R. (2021). Marketing Management: Past, Present and Future (4th ed. 2021). Springer International Publishing

Modulname		Modulcode	
Marketing and Trade		MTTT-120	
Veranstaltungsname		Veranstaltungscode	
Global Trade		MTTT25-122/MTTT-122	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Gerrit Heinemann	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	45	75

Lehrform
Vorlesung
Inhalte
1. The Global Trade Environment - Global Trade Flows and Networks - Global Trade Volume - Main Trade Nations 2. Theories of Global Trade - History of Trade - Traditional Theories - Modern Theories Initiation of Global Trade: Outward vs. Inward - Outward Trade - Inward Trade - Combined Trade 3. Options of Market Entry and Modes of Trade (Outward) - Options of Market Entry - Modes of Trade - Advantages and Disadvantages 4. Modes of Export Trade (Outward) - Direct versus Indirect Export Modes - Selection of Intermediaries - Contracting 5. Global Trade under the WTO Mechanism - History of WTO - Specifics and Organisation of WTO - Actual Situation of WTO 6. Regulation on Global Trade - Regulation on Trade in Goods - Regulation on Trade in Services: Applications of GATS - From GATT to WTO 7. Rules of Origin and Preferential Treatment - Regulation on Trade Measures: Preferential Treatment - Regulation on Non-tariff Measures: Rules of Origin - Cumulation and Criteria of Origin: Memento and Documentation 8. Regulation on Trade-Related Intellectual Property Rights TRIPs
Studien-/Prüfungsleistung
Global Marketing and Trade: written examination, 90 min.
Literatur
Hollensen, S. (2016). Global Marketing. (7th ed.). Pearson International. Krugman, P.; Obstfeld, M. M. (2014). International Trade: Theory and Policy: Global Edition. Pearson. Lee, E. S. (2012): World Trade Regulation, International Trade under the WTO Mechanism

Helpman, E. (2011). Understanding Global Trade. Harvard University Press. Saviolo, S.; Testa, S. (2002): Strategic Management in the Fashion Companies, Firenze 2002
Trebilcock,
M. J., Howse, R. (1999). The Regulation of International Trade, last edition, London 1999

Modulname	Modulcode
Research and Development Project	MTTT25-150/150
Modulverantwortliche/r	Fachbereich
Boris Mahltig	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
2. Semester		1	Pflichtfach	8.0
All Creditpoints 90 716 715 2017				
2. Semester		1	Pflichtfach	8.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
2. Semester		1	Pflichtfach	8.0

Empfohlene Voraussetzungen
Basics of textile materials and technologies, in addition, the requirements specific to the respective project goal must be determined with the supervising lecturer and fixed as part of the examination registration

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
Summe (Pflicht und Wahlpflicht)			4.00	240

Modulname	Modulcode
Retail for Textiles	MTTT25-110/110
Modulverantwortliche/r	Fachbereich
Gerrit Heinemann	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Trade and Retail
Master Man.ofTextileTradeTech 715 3 (2010)
Master Man.ofTextileTradeTech 715 7 (2010)

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 715 2010				
1. Semester		1	Pflichtfach	5.0
All Creditpoints 90 716 715 2017				
2. Semester	1	1	Pflichtfach	5.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
2. Semester	1	1	Pflichtfach	5.0

Empfohlene Voraussetzungen
keine

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Retail Marketing	Pflicht	2.00	75
2.	International Retail	Pflicht	2.00	75
Summe (Pflicht und Wahlpflicht)			4.00	150

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: Students acquire essential skills in analyzing and applying international retail strategies for the textile and fashion industry. WITH WHAT: ...by • Learning to assess the significance of internationalization for fashion retailers, • Identifying key characteristics, motives, and objectives for expanding into global markets, • Analyzing and applying strategies for new retail formats and marketing channels, • Evaluating the roles and interrelationships between online and offline sales, • Developing marketing and sales methods to enhance competitive advantage in international markets.

WHAT FOR: ...to equip students with the tools and strategies necessary to navigate and succeed in the rapidly evolving global textile and fashion retail landscape.
Zu erbringende Prüfungsleistung
Klausur, 90 Min.
Stellenwert der Modulnote in der Endnote
(5CP / 53CP) * 0,65

Modulname		Modulcode	
Retail for Textiles		MTTT25-110/110	
Veranstaltungsname		Veranstaltungscode	
Retail Marketing		MTTT25-110/MTTT-110	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Felix Brünker	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	45	75

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
• Development of basic merchandising concepts. • Vendors, buyers, merchandisers • The role of wholesalers. • Retail site selection. • The role of human perception in merchandising • Marketing environment and global marketplace in retailing, • Market segmentation, targeting and positioning in retailing, • Building customer relationships in retailing, • Creating competitive advantages in retailing, • Brands, products, packaging in retailing, • Assortment development and life-cycle-strategies in retailing, • Pricing considerations and approaches in retailing, • Pricing strategies in retailing.
Literatur
Hollensen, S. (2016). Global Marketing. (7th ed.). Pearson International. Zentes, Joachim; Morschett, Dirk; Schramm-Klein, Hanna(2017): Strategic Retail Management. ISBN 978-3-8349-0287-0 Kotler, Philip; Armstrong, Gary(2023): Principles of Marketing. ISBN – 13: 978-0-13-700669-4

Modulname		Modulcode	
Retail for Textiles		MTTT25-110/110	
Veranstaltungsname		Veranstaltungscode	
International Retail		MTTT25-110/MTTT-110	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Gerrit Heinemann	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	45	75

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
1. Retail Evolution and New Formats - Contact Principles and Formats - Figures and Developments - Offline versus Online versus Hybrid 2. Issues of International Retailing - Sales Side versus Procurement Side - Cross Border Trade and International Competition - Reasons for Growth 3. Growth Strategies in Retailing - Organic Growth - Cooperative Growth - Acquired Growth 4. Deciding International - Initiation of International Retailing - Conditions - Decisions - Obstacles 5. Preparing International - Research Work and Country Selection - What to consider - Attractiveness of Markets - Market Selection 6. Going International - Options and Modes - Internationalisation Strategies - Market Entry Options - Market Entry Modes 7. Being International - Formal and Informal Coordination Mechanisms - Standardisation versus Differentiation - Centralisation versus Decentralisation - The I/R-Framework 8. Being International - Management of International Retailing - Business Organisation - Process Organisation - Integration versus eoration 9. Special Issues in International Retailing - Global Sourcing and Procurement in international Retailing - E-Procurement in international Retailing - Performance Measurement in International Retailing
Literatur
Hollensen, S. (2016). Global Marketing. (7th ed.). Pearson International. Zentes, Joachim; Morschett, Dirk; Schramm-Klein, Hanna: Strategic Retail Management. ISBN 978-3-8349-0287-0 Cavusgil, S. T.; Knight, G. (2016). Internatinal Business. Fourth Edition. Pearson. Lewis, R.; Dart, M. (2014). Th New Rules of Retail.

Heinemann, G.; Schwarzl, C. (2010): New Online Retailing – Innovation and Transformation, Gabler, 2010.
Heinemann, G.; Gaiser, C. (2015): Social – Local – Mobile: The Future of Location-based Services.

Modulname	Modulcode
Scientific Methods and Project Applications	MTTT25-40
Modulverantwortliche/r	Fachbereich
Thomas Grethe	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	3	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	3	1	Pflichtfach	6.0

Empfohlene Voraussetzungen
none

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Master Projects	Pflicht	3.00	120
2.	Applied Philosophy of Science	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			5.00	180

Stellenwert der Modulnote in der Endnote
(6CP / 53CP) * 0,65

Modulname		Modulcode	
Scientific Methods and Project Applications		MTTT25-40	
Veranstaltungsname		Veranstaltungscode	
Master Projects		MTTT25-41	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester		nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
3.00	45	75	120

Lehrform
Projekt
Studien-/Prüfungsleistung
Testat

Modulname		Modulcode	
Scientific Methods and Project Applications		MTTT25-40	
Veranstaltungsname		Veranstaltungscode	
Applied Philosophy of Science		MTTT25-42	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Thomas Grethe	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester		nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung
Lernergebnisse / Kompetenzen (learning outcomes)
Students acquire basic knowledge of the philosophy of science which is necessary for evidence-based work in the natural and engineering sciences, and develop their own options for action as scientists by • familiarising themselves with fundamental concepts in scientific theory • familiarising themselves with the historical development of science • reflecting on the practical current science • establishing a link to current developments in science and society to be able to make scientifically sound and evidence-based decisions in natural sciences and engineering and to implement these in practical applications
Inhalte
Familiarisation with and reflection on • Subject of science • theories and models • various. Theories of science e.g. according to Kuhn/Popper/Feyerabend • Induction problem, realism and anti-realism • Nature and integrity of modern science demonstrated using a contemporary example • Significance of measured values, e.g. in clinical studies • Freedom of science in Germany and internationally • Comparison of the history of science in Europe and China up to the present day • Patent system • Publication system and its quality standards • Evaluate a current topic of social relevance, e.g. neural networks and machine ethics

- Science funding
- Scientific career planning, e.g. doctorate

Furthermore:

- get to know the structure of journal articles and criticise an article
- familiarise yourself with literature databases and carry out a literature search

Studien-/Prüfungsleistung

written examination, 60 Min.

Literatur

- Samir Okasha, Philosophy of Science: Very Short Introduction, 2. Edition ISBN: 9780198745587 <http://dx.doi.org/10.1093/actrade/9780198745587.001.0001>
- The Stanford Encyclopedia of Philosophy
The Metaphysics Research Lab, Philosophy Department, Stanford University, Stanford, CA 94305-4115
Editors: Edward N. Zalta and Uri Nodelman
ISSN 1095-5054
<https://plato.stanford.edu/>
- Richard P. Feynman, Some remarks on science, pseudoscience, and learning how to not fool yourself. Caltech's 1974 commencement address.
<https://calteches.library.caltech.edu/51/2/CargoCult.htm>
- Colin A. Ronan, The Shorter Science and Civilisation in China
Volume 1, 1980, ISBN: 9780521292863

Modulname	Modulcode
Supply Chain Management	MTTT25-100/100
Modulverantwortliche/r	Fachbereich
Markus Muschkiet	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 715 2017				
2. Semester	1	1	Pflichtfach	5.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
2. Semester	1	1	Pflichtfach	5.0

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Global Logistics	Pflicht	2.00	75
2.	Procurement and Sourcing	Pflicht	2.00	75
Summe (Pflicht und Wahlpflicht)			4.00	150

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
The basics of global transport logistics are taught in the lesson "Global Logistics". You will learn the basic concepts of logistics, different markets, weak points in the system and how to react to them. You will be able to apply this knowledge and have demonstrated this in the case study. In the lecture about "Global Procurement and Sourcing", students will learn the fundamentals of global sourcing in textile value chains, procurement strategies, and SCM models. They will be able to develop sourcing strategies, apply legal and procedural knowledge in international trade, and demonstrate their skills through practical applications and exercises.
Zu erbringende Prüfungsleistung
Klausur, 90 Min.
Stellenwert der Modulnote in der Endnote
$(5CP / 53CP) * 0,65$

Modulname		Modulcode	
Supply Chain Management		MTTT25-100/100	
Veranstaltungsname		Veranstaltungscode	
Global Logistics		MTTT25-100/MTTT-100	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Markus Muschkiet	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	45	75

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
In the lecture "Global Logistics" lecture, the international flows of goods and their optimal organization are at the forefront. The various modes of transport are addressed with their specific advantages and disadvantages, as well as the organizational concepts associated with them. In addition, influence on global flows of goods has legal aspects and framework conditions, such as "International Commercial Terms" (Incoterms). Incoterms regulate the pass of risk from the seller to the buyer, the organization and liability regulations. They are internationally binding. In many areas, they provide the legal basis for international trade and the associated logistics. This also applies to customs law, which is dealt with both from import and export perspectives.
Literatur
Muschkiet, M.: Global Logistics, script of lecture

Modulname		Modulcode	
Supply Chain Management		MTTT25-100/100	
Veranstaltungsname		Veranstaltungscode	
Procurement and Sourcing		MTTT25-100/MTTT-100	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Claus Bühs	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	45	75

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
In the lecture “Global Procurement and Sourcing”, students acquire knowledge of sourcing and procurement of textile products in global value chains. The special features of the global division of labor process in the value creation of textile products are given particular consideration. In interactive modules, students learn about the special features of procurement processes as a component of SCM. Various models (e.g. SCOR) are explained as methodological tools and the integration aspects of modern supply chains are discussed. Special features of textile value creation due to trends such as fast fashion or the increasing verticalization of the industry are explored. Practical application of the instruments learned is carried out through case studies. As part of this practical application, students learn to define their own supply chain variants, to evaluate the design elements and strategy alternatives and to use them according to different company situations. In the context of industry-specific procurement, a differentiation is also made according to procurement variants such as in-house production, contract processing (sub-contracting or CMT business) or full purchase of finished products. The various procedural and legal consequences in foreign trade are taught.
Literatur
Bühs, Claus: Global Sourcing and Procurement Script of lecture; Fernie, John; Azuma, David B.: Fashion Supply Chain Management: Principles and Practice; Kogan Page; London, 2018. Johnson, Michael D.; Daft, Richard L.: Managing Supply Chain Operations: A Textbook; Routledge; New York, 2017. Koppelman, Udo: Procurement Marketing; Springer Gabler; Wiesbaden, 2016 Lecture notes and exercises for the lecture. The lecture notes refer to further literature.

TECHNICAL TEXTILES

M.Sc. Management of Textile Trade and Technology - Technical Textiles -							
Regelstudienzeit: 3 Semester / 90 CP - <u>Studienstart: WiSe</u>							
SEM							CP
1	HIGH PERFOR- MANCE FIBERS	DEVELOP- MENT AND MANUFACTU- RING OF FUNCTIONAL AND PROTECTIVE GARMENTS	DEVELOP- MENT OF NARROW FABRICS	ADVANCED MANAGEMENT SKILLS		ELECTIVES	49
	DIGITAL PRINTING FOR TECHNICAL TEXTILES		DIGITAL PRINTING	ORGANISATIONAL BEHAVIOUR			
	ADVANCED NARROW FABRICS						
	6 CP						
2	SPECIAL FIELDS OF KNITTING	TECHNICAL TEXTILES	INNOVATIVE MATERIALS AND PRODUCTS	MASTER PROJECTS	ENVIRON- MENTAL MANAGEMENT AND BUSINESS ETHICS		
	3DIMENSIO- NAL TEXTILES	PRODUCTION OF WOVEN		APPLIED PHILOSOPHY OF SCIENCE			
		ADVANCED FINISHING					
		4 CP					
2	RESEARCH & DEVELOPMENT PROJECT						8
3	MASTER THESIS + COLLOQUIUM						33

M.Sc. Management of Textile Trade and Technology - Technical Textiles -									
Regelstudienzeit: 3 Semester / 90 CP - Studienstart: SoSe									
SEM							CP		
1	SPECIAL FIELDS OF KNITTING	TECHNICAL TEXTILES	INNOVATIVE MATERIALS AND PRODUCTS	MASTER PROJECTS	ENVIRONMENTAL MANAGEMENT AND BUSINESS ETHICS	ELECTIVES	49		
	3DIMENSIONAL TEXTILES	PRODUCTION OF WOVEN		APPLIED PHILOSOPHY OF SCIENCE					
		ADVANCED FINISHING							
	4 CP	6 CP	5 CP	6 CP	3 CP				
2	HIGH PERFORMANCE FIBERS	DEVELOPMENT AND MANUFACTURING OF FUNCTIONAL AND PROTECTIVE GARMENTS	DEVELOPMENT OF NARROW FABRICS	ADVANCED MANAGEMENT SKILLS					
	DIGITAL PRINTING FOR TECHNICAL TEXTILES		DIGITAL PRINTING	ORGANISATIONAL BEHAVIOUR					
	ADVANCED NARROW FABRICS								
	6 CP	3 CP	4 CP	6 CP				6CP	
2	RESEARCH & DEVELOPMENT PROJECT							8	
3	MASTER THESIS + COLLOQUIUM							33	

Modulname	Modulcode
Advanced Textile Technologies	MTTT25-20/20
Modulverantwortliche/r	Fachbereich
Robert Groten	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Man.ofTextileTradeTech 714 3 (2010)
Master Man.ofTextileTradeTech 714 7 (2010)

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2010				
1. Semester		1	Pflichtfach	7.0
All Creditpoints 90 716 714 2017				
2. Semester	1	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT - PO2025				
2. Semester	1	1	Pflichtfach	6.0

Empfohlene Voraussetzungen
keine

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Technical Textiles	Pflicht	2.00	60
2.	Production of Woven Technical Textiles	Pflicht	2.00	60
3.	Advanced Finishing	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			6.00	180

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: Students acquire the ability to apply advanced textile technologies for developing specialized textile products, focusing on personal protective clothing. WITH WHAT: ...by defining consumer requirements and translating them into product or material specifications, Assessing the steps needed to achieve specific product characteristics, Implementing preparation measures and evaluating key finishing process parameters, Carrying out finishing processes and analyzing their effects on subsequent processes like lamination or bonding. WHAT FOR:

...to equip students with the skills necessary for producing high-quality, specialized textiles, ensuring optimal performance in personal protective clothing applications.
Zu erbringende Prüfungsleistung
written examination, 120 min (3x40min, 34,33,33%)
Stellenwert der Modulnote in der Endnote
(6CP / 53CP) * 0,65

Modulname		Modulcode	
Advanced Textile Technologies		MTTT25-20/20	
Veranstaltungsname		Veranstaltungscode	
Technical Textiles		MTTT25-20/MTTT-20	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Robert Groten	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung/Übung
Inhalte
The lecture will give explanations regarding the demands of personal protective clothing, special understanding for applications and necessities towards the raw materials. The requirements of special protective clothing, as they are often a part of a complete protection system, are to discuss. Furthermore examples are shown how to develop tests or new test equipment. • Personal protective clothing • Legislation for PPC • Ballistic protection • Heat protection • Cold protection • Electrical protection • Chemical protection • Clothing for clean rooms • Medical & Hygiene
Literatur
Fung, W.; Hardcastle, M.: Textiles in automotive engineering, The Textile Institute, Woodhead Publishing Ltd, Cambridge, 2001 Horrocks, A.R.; Anand, S.C.: Handbook of technical textiles, The Textile Institute, Woodhead Publishing Ltd, Cambridge, 2000

Modulname		Modulcode	
Advanced Textile Technologies		MTTT25-20/20	
Veranstaltungsname		Veranstaltungscode	
Production of Woven Technical Textiles		MTTT25-20/MTTT-20	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Alexander Büsgen	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung/Übung
Inhalte
1. Introduction, Definitions, Classifications 2. Basics of woven technical textile fabrics 2.1 Particular fiber and yarn materials 2.2 Technology adaptations of weaving 2.3 Improvement of woven structural unevenness 2.4 Irregularity reduction of woven structures 3. Features and character of woven technical fabrics 3.1 Fabrics for filtration 3.2 Forming Fabrics 3.3 Airbag fabrics 3.4 Tire cord and tire cord fabrics 3.5 Glass fiber fabrics for reinforcing PCB's
Literatur
A. Richard Horrocks; Subhash C. Anand: Handbook of technical textiles, Woodhead Publishing, Cambridge 2000 Adanur, S.: Wellington Sears handbook of industrial textiles, Technomic Pub. 1995 Huschke, R.: Präzisionsgewebe - Eigenschaften, Herstellung und Anwendung, Die Bibliothek der Technik (Band 280), SZ Scala GmbH, 2005 Adanur, S.: Paper machine clothing - key to papermaking process, Technomic Publishing AG, Basel, 1997 Wakeman, R. et al: Filtration, Elsevier Science Ltd., Oxford 1999 Knappek, S.: Forming applications on PM - packaging grades, 2010-04-22, 8 Mukhopadhyay, S.K.: Technical developments and market trends of automotive airbags, chapter 12 in: Shishoo, R. (ed.): Textile advances in the automotive industry, Woodhead Publishing Ltd,

Cambridge 2008, pp. 255-269 Dudek, R.: Advanced glass reinforcement technology for improved signal quality, (Printes Circuit Design & Fab, 1. Feb. 2008)

Modulname		Modulcode	
Advanced Textile Technologies		MTTT25-20/20	
Veranstaltungsname		Veranstaltungscode	
Advanced Finishing		MTTT25-20/MTTT-20	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Boris Mahltig	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung/Übung
Inhalte
The students learn and understand the structure/property relation and finishing/fiber relation. They will be able to adapt the fundamental concept of anchor and function for the application of textile chemicals. Chemistry and properties of a selection of the following finishes are discussed and used as prominent examples for functional finishes: • Easycare finishes • Antimicrobial finishes • Hydrophobic and oleophobic finishes • Soil-Release finishes • Antistatic finishes • Hydrophilic finishes • Plasmatechnology • Flame retardant finishes • UV-protection • Photocatalytic applications As special materials effect pigments and phosphorescent pigments are presented to demonstrate their high potential for textile functionalization.
Literatur
R. Paul: Functional Finishes for Textiles, Woodhead Publishing, 2015 B. Mahltig, T. Textor: Nanosols and Textiles, World Scientific, 2008 Mahltig, B., & Grethe, T. (2022). High-performance and functional fiber materials—a review of properties, scanning electron microscopy SEM and electron dispersive spectroscopy EDS. Textiles, 2(2), 209-251. Mahltig, B. (2021). High-performance fibres—a review of properties and IR-Spectra. Tekstilec, 64(2), 96-118.

Modulname	Modulcode
Development and manufacturing of functional and protective garments	MTTT25-70/70
Modulverantwortliche/r	Fachbereich
	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
1. Semester	2	1	Pflichtfach	3.0
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	2	1	Pflichtfach	3.0

Empfohlene Voraussetzungen
Basics of Textile Materials and Textile Technologies. Basic knowledge of clothing.

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Development and manufacturing of functional and protective garments	Pflicht	2.00	90
Summe (Pflicht und Wahlpflicht)			2.00	90

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT:Students acquire essential skills in the development and manufacturing of functional and protective garments, focusing on construction techniques for specialized clothing.WITH WHAT:...by+ Exploring the distinct purposes of functional and protective garments,+ Applying construction kit systems for the development of protective clothing, + Analyzing materials and methods used in creating garments for specific protective and functional needs.+ Being able to design application scenarios for specific areas of application of functional clothing+ Being able to analyze and evaluate the property requirements of textiles and clothingIn order to ultimately be able to develop concepts for functional clothing systems.
Stellenwert der Modulnote in der Endnote
(3CP / 53CP) * 0,65

Modulname		Modulcode	
Development and manufacturing of functional and protective garments		MTTT25-70/70	
Veranstaltungsname		Veranstaltungscode	
Development and manufacturing of functional and protective garments		MTTT25-70/MTTT-70	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung
Inhalte
Introduction to functional clothing with consideration of application examples. Current megatrends are included. The students acquire basic knowledge of the physiological principles of functional clothing with regard to comfort properties. In particular, the principles of moisture transport, heat retention and water resistance are explained. The requirements for functional textiles are explained using application-related examples. Selected examples of functional clothing from the areas of • Sports and fitness • Medical textiles • Protective clothing for various professional groups are developed with regard to properties, requirements and textile and clothing technology implementation. The students are then able to develop a clothing concept for a functional or protective clothing area of their choice and to combine different functional textiles with one another.
Literatur
Raheel: Protective clothing Systems and Materials, CRC Press, 1994 Pan, Sun: Functional Textiles for Improved Performance, Protection and Health, Woodhead Publishing, Cambridge, 2011 Pan, Sun: Thermal and Moisture Transport in Fibrous Materials, Woodhead Publishing, Cambridge, 2006

Modulname	Modulcode
Environmental Management and Business Ethics	MTTT25-30/30
Modulverantwortliche/r	Fachbereich
Bastian Quattelbaum	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
1. Semester	2	1	Pflichtfach	3.0
All Creditpoints 90 716 715 2017				
1. Semester	2	1	Pflichtfach	3.0
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	2	1	Pflichtfach	3.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	2	1	Pflichtfach	3.0

Empfohlene Voraussetzungen
none

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Environmental Management and Business Ethics	Pflicht	2.00	90
Summe (Pflicht und Wahlpflicht)			2.00	90

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: Students acquire essential skills in managing environmental responsibilities in the textile and clothing industry, with a focus on sustainability and regulatory compliance. HOW: • Learning to identify relevant environmental laws and regulations, • Applying process-integrated environmental protection programs in the industry, • Understanding the risks associated with hazardous chemicals in textile production • Exploring the principles of ecology and sustainability • Enhancing communication and teamwork skills through collaborative presentations. WHY:

...to equip students with the necessary tools to implement sustainable practices and decision-making in the textile and clothing industry, supporting their professional development in a responsible and compliant manner.

References:

- ISO standards
- OECD Due Diligence Guidance for Responsible Business Conduct (Online)

Zu erbringende Prüfungsleistung

Klausur, 60 Min.

Stellenwert der Modulnote in der Endnote

(3CP / 53CP) * 0,65

Modulname		Modulcode	
Environmental Management and Business Ethics		MTTT25-30/30	
Veranstaltungsname		Veranstaltungscode	
Environmental Management and Business Ethics		MTTT25-30/MTTT-30	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Bastian Quattelbaum	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung
Inhalte
Students in the Environmental Management and Business Ethics lecture will develop essential skills for managing environmental responsibilities within the textile and clothing industry, focusing on sustainability and regulatory compliance. They will learn to identify relevant environmental laws, implement process-integrated protection programs, assess environmental risks, and explore ecological principles while enhancing communication and teamwork through collaborative presentations. This training aims to equip students to adopt sustainable practices and make responsible decisions in their professional careers. References: - ISO standards - OECD Due Diligence Guidance for Responsible Business Conduct (Online)

Modulname	Modulcode
Innovative Materials and Products	MTTT25-50/50
Modulverantwortliche/r	Fachbereich
Alexander Büsgen	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail
Master Man.ofTextileTradeTech 714 3 (2010)
Master Man.ofTextileTradeTech 714 7 (2010)
Master Man.ofTextileTradeTech 715 3 (2010)
Master Man.ofTextileTradeTech 715 7 (2010)

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2010				
1. Semester		1	Pflichtfach	5.0
All Creditpoints 90 716 715 2010				
1. Semester		1	Pflichtfach	5.0
All Creditpoints 90 716 714 2017				
2. Semester	1	1	Pflichtfach	5.0
All Creditpoints 90 716 715 2017				
2. Semester	1	1	Pflichtfach	5.0
Kreditpunktekonto FB07 MTTT - PO2025				
2. Semester	1	1	Pflichtfach	5.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
2. Semester	1	1	Pflichtfach	5.0

Empfohlene Voraussetzungen
basic knowledge about textiles

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Innovative Materials and Products	Pflicht	4.00	150
Summe (Pflicht und Wahlpflicht)			4.00	150

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT

1. Execute a formal procedure and method for selecting, evaluating and designing a new and innovative product. Execute an idea screening, an evaluation and a selection of best ideas. Apply a cost and technology rating for alternatives and variations of a new product idea. Apply and use this method for any new product development task.
2. Basic understanding of two modern textile areas offering fast and dynamic growing markets: composite material reinforcements and smart textile materials. Know the production methods and properties of these materials. Knowledge about use, advantages and disadvantages of composites and of smart textiles. Apply these textiles to fulfill individual product requirements.

HOW

Formal procedure and method for new product developments: idea screening and conceptual design.

Group work (6 to 8 members) with individual product development and application of idea screenings and conceptual design method to an individual new product idea.

WHY

Conduct an effective method of new product development for textiles.

Zu erbringende Prüfungsleistung

examination/report

Stellenwert der Modulnote in der Endnote

$(5CP / 53CP) \cdot 0,65$

Modulname		Modulcode	
Innovative Materials and Products		MTTT25-50/50	
Veranstaltungsname		Veranstaltungscode	
Innovative Materials and Products		MTTT25-50/MTTT-50	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Alexander Büsgen	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
4.00	60	90	150

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
1. Innovative Product Development • strategies and procedures for new product development, • Idea generation procedures and idea screening methods • Calculation of manufacturing costs and cost price (overhead calculation) • Conceptual design: creation of sub tasks by breaking down the main task, finding of alternative solutions for each sub task, cost- and quality evaluation for each suggestion, calculation of optimized results 2. Composite materials - materials, properties, applications - manufacturing processes of composites - textile reinforcements 3. Smart Textiles - sensoric textiles (ECG, keyboard, smart carpet) - light emitting textiles - thermal active textiles
Studien-/Prüfungsleistung
written examination and report
Literatur
Büsgen, A., New product development in interior textiles, Chapter 8, pp 132 – 155 in: L. Horne (ed). New Product Development in Textiles: Innovation and Production, Woodhead Publishing Ltd., Oxford 2012 Büsgen, A., Innovative Textiles for Seating, Chapter 11, pp 258 - 273 in: T. Rowe (ed)., Interior Textiles - Design and developments, Woodhead Publishing Ltd., Oxford 2009 Mogahzy, Y.E.EL, Engineering textiles, Woodhead Publishing Ltd, Cambridge 2009 Tao, Xiaoming (ed): Smart Fibres, Fabrics and Clothing, Woodhead Publishing Ltd., Oxford 2001

van Langenhove , Lieva (ed): Smart textiles for medicine and healthcare, CRC Press ,
University of Virginia, 2007
McCann, J., Bryson, D. (ed): Smart clothes and wearable technology, Elsevier, 2009

Modulname	Modulcode
Management	MTTT25-80/80
Modulverantwortliche/r	Fachbereich
Monika Eigenstetter	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Management of Textile Trade and Technology, 2017, Trade and Retail

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
1. Semester	2	1	Pflichtfach	6.0
All Creditpoints 90 716 715 2017				
1. Semester	2	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	2	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	2	1	Pflichtfach	6.0

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Advanced Management Skills	Pflicht	4.00	120
2.	Organizational Behaviour	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			6.00	180

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: understand how an organisation is embedded in market, social, technical and regulatory frameworks, know the socio-technical basis of an organisation can name stakeholders and their expectations can derive strategies, e.g. for product development, based on risk assessments can derive organisational and personnel strategies from this have developed basic leadership techniques for international management acquire essential skills in organizational behavior including leadership and management, focusing on effectively leading teams and making decisions in a global business environment. How: ...by Reading scientific articles & presenting the main contents

Group work Design thinking Using methods of empirical Research (e.g. interviews) Studying and reading scientific articles & reproduction and selection of contents to a team of peer students in a simulated business environment about organizational behaviour WHY: ...to equip students with the management skills needed to lead teams and make informed decisions, fostering sustainable organizational growth in both domestic and global contexts
Zu erbringende Prüfungsleistung
Klausur, 60 Min. / Portfolioarbeit
Stellenwert der Modulnote in der Endnote
(6CP / 53CP) * 0,65

Modulname		Modulcode	
Management		MTTT25-80/80	
Veranstaltungsname		Veranstaltungscode	
Advanced Management Skills		MTTT25-80/MTTT-80	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Monika Eigenstetter	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
4.00	60	60	120

Lehrform
Vorlesung
Inhalte
• St. Gallen Management Approach • Megatrends and scenarios • Risk and stakeholder management • Regulations of the EU Green Deal • Design Thinking • Innovation Management via CapSEM model • ESG management and reporting
Studien-/Prüfungsleistung
Klausur/Portfolioarbeit
Literatur
Carroll, A. & Brown, J. (2022) Business & Society: Ethics, Sustainability & Stakeholder Management: Ethics, Sustainability, and Stakeholder Management Magerholm Fet A. & Knudson, H. (2023). The CapSEM Model. Springer Rugg-Stürm, J & Grand, S. (2019). Managing in a complex world. utb EU Green Deal: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

Modulname		Modulcode	
Management		MTTT25-80/80	
Veranstaltungsname		Veranstaltungscode	
Organizational Behaviour		MTTT25-80/MTTT-80	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Marcus Weber	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
Content • Foundation of Individual Behavior • Attitudes and Job Satisfaction • Personality and Values • Emotions and Moods • Learning to apply decision-making strategies, • Developing techniques to lead and motivate employees, • Convincing customers and stakeholders, • Considering intercultural and ethical aspects in management, • Recognizing human behavior patterns and objectives, • Using management tools and methods to guide departments or companies, • Balancing economic, social, and ethical factors in leadership
Literatur
Robbins, S. R.; Judge, T.A.: Organizational Behavior, Int. 19th Ed., Pearson 2018 (or later)

Modulname	Modulcode
Manufacturing of Textiles and Garments	MTTT25-10/10
Modulverantwortliche/r	Fachbereich
Marcus Weber	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles
Master Man.ofTextileTradeTech 714 3 (2010)
Master Man.ofTextileTradeTech 714 7 (2010)

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2010				
1. Semester		1	Pflichtfach	5.0
All Creditpoints 90 716 714 2017				
2. Semester	1	1	Pflichtfach	4.0
Kreditpunktekonto FB07 MTTT - PO2025				
2. Semester	1	1	Pflichtfach	4.0

Empfohlene Voraussetzungen
keine

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Special Fields of Knitting	Pflicht	2.00	60
2.	3dimensional Textiles	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			4.00	120

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
- Analyse sample differences in warp and weft knitting, single, double - Define difference between 2D, multiaxial and 3D - Distinguish and explain warp knitting and 3D-weaving technologies and products - Demonstrate detailed understanding of warp knitting technology (stitch formation and pattern technologies) in sketches and keywords - Explain the production processes and structures of different pattern designs - Define technical terms of 3-dimensional textiles - Explain spacer- and multilayer weave design - Create multilayer weave repeat- Design weaves of multilayer woven fabrics - Know 3D shell fabrics, tubular structures, braided 3D textiles and knitted spacer fabrics - Describe manufacture and properties of 3D-reinforced composite - Knowledge of thread orientation applications

- samples and classify them to categories and describe how to produce them
- Analyse 3-dimensional braids, explain their properties and assign applications
- Understand warp and resulting physical properties and suitable
- Analyse knitting technology and develop own pattern
- choose adequate pattern technologies and contrast them to other technologies
- explain circular 3D fabrics and 3D woven shells and exemplify applications

Zu erbringende Prüfungsleistung

written examination, 60 min

Stellenwert der Modulnote in der Endnote

(4CP / 53CP) * 0,65

Modulname		Modulcode	
Manufacturing of Textiles and Garments		MTTT25-10/10	
Veranstaltungsname		Veranstaltungscode	
Special Fields of Knitting		MTTT25-10/MTTT-10	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Marcus Weber	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
Main theories about warp knitting technology are explained. The seminar explains different applications of warp knitted fabrics and how they are produced. The technologies of stitch and weft yarn insertion are explained as well as warp beam run-in and threading. Case studies about e. g.: • Swim suits • Sports wear • Reinforcing fabrics • Lace fabrics • Tulle • Nets Using construction tools to understand and develop fabric construction in warp knitting. Students learn to evaluate warp knitting process technology in contrast to weft knitting and weaving.
Literatur
Raz, S: Warp knitting production, Melliand Textilberichte Verlag, Heidelberg 1987 Spencer, D. J., Knitting technology - a comprehensive handbook and practical guide, Woodhead Publishing, Cambridge England, 2001 Ullmann's Encyclopedia of Industrial Chemistry, Verlagsgesellschaft mbH, Weinheim 1995; Weber, K.-P. (Koautor), Textile Technology - Knitting

Modulname		Modulcode	
Manufacturing of Textiles and Garments		MTTT25-10/10	
Veranstaltungsname		Veranstaltungscode	
3dimensional Textiles		MTTT25-10/MTTT-10	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Alexander Büsgen	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
1. Introduction 2. Multilayer woven textiles - tightly arranged multilayer fabrics - woven spacer fabrics 3. Woven stiffeners, ribs and panels 4. Seamless woven 3D shapes 5. Circular multilayer fabrics 6. 3D Braids - 2-step and 4-step braids - 3D horn gear braids - 3D lace braids 7. Knitted spacer fabrics
Literatur
Miravete, A. (ed.): 3-D textile reinforcements in composite materials, Woodhead Publishing Ltd., Abington Cambridge, 1999 Tong, L. et.al.: 3D Fibre Reinforced Polymer Composites, Elsevier Science Ltd., Oxford, 2002 Wulfhorst, B.; Büsgen, A.; Weber, M.: Three-dimensional textile intermediate products for the economical manufacturing of Construction elements made from fibre composite materials Melliand English, September 1990, pp. E 309 - E 313

Modulname	Modulcode
Practical Training	MTTT25-90
Modulverantwortliche/r	Fachbereich
Mathias Muth	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
Kreditpunktekonto FB07 MTTT - PO2025				
2. Semester	1	1	Pflichtfach	4.0

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Development of Narrow Fabrics	Pflicht	2.00	60
2.	Digital Printing	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			4.00	120

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)
WHAT: Students acquire proficiency in the application of technical textile structures, specifically focusing on technical narrow fabrics and digital printing technologies, along with the capability to adapt these processes to innovative product applications. HOW: Students engage in practical activities where they utilize their theoretical knowledge of narrow fabric structures and digital printing technologies to various technical applications. They determine optimal process setups and parameters to achieve the best results in development and production contexts. WHY: Students develop technical narrow fabric structures through informed decisions regarding machine technology and production processes. Additionally, students analyze and specify necessary process parameters and pattern structures, evaluating the technical applications of narrow fabric products. With advanced training in digital textile printing, they effectively select suitable printing systems—including hardware, software, and substrates—for various technical and specialized applications, and are equipped to operate and maintain digital printing machines.
Verwendbarkeit der Veranstaltung
The module serves as a foundational skill set for advanced courses and research projects within the Master's program, empowering students to effectively tackle complex innovations in technical textiles.

Graduates are equipped to enter the technical textiles industry with the hands-on expertise required to develop and implement innovative textile solutions, significantly contributing to product development and operational efficiency.

Stellenwert der Modulnote in der Endnote

$(4\text{CP} / 53\text{CP}) * 0,65$

Modulname		Modulcode	
Practical Training		MTTT25-90	
Veranstaltungsname		Veranstaltungscode	
Development of Narrow Fabrics		MTTT25-91	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Mathias Beer	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester		nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Praktikum
Lernergebnisse / Kompetenzen (learning outcomes)
WHAT: Students acquire essential skills in the development process of narrow fabrics, focusing on the practical application in the fields of narrow weaving and braiding. HOW: ...by • Learning the essential steps of product development of narrow textiles • Product definition, development and design • Practical process experience • Process preparation • Parameter definition • Machine setup • Production • Analysis and Description • Description of product results and presentation WHY: ...to equip students with practical expertise in narrow fabric production technologies, preparing them for professional applications in modern textile manufacturing, especially in the field of technical textiles.
Studien-/Prüfungsleistung
Portfolio
Literatur

Beer, M.: Advanced Narrow Fabrics - Digital Lecture/Learning contents on the online platform Moodle
Kyosev, Y., Braiding technology for textiles, Woodhead Publishing, 2014
Essig, E., Nadel-Bandwebtechnik, Jakob Müller Institute of Narrow Fabrics, 2005
Engels, H.: Flechttechnologie - Schmucktextilien - Technische Textilien, Arbeitgeberkreis Gesamttextil/Industrieverband Deutscher Bandweber und Flechter e.V. (Hrsg.) Eschborn, 1996
Atkins and Pearce Handbook of Industrial Braiding, F. Ko, C. Pastore, and A. Head, Atkins and Pearce, Covington KY, October, 1989
H A McKenna, J W S Hearle, N O'Hear, Handbook of fibre rope technology, Woodhead Publishing Limited

Modulname		Modulcode	
Practical Training		MTTT25-90	
Veranstaltungsname		Veranstaltungscode	
Digital Printing		MTTT25-92/MTTT-93	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Mathias Muth	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester		nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Praktikum
Studien-/Prüfungsleistung
Portfolio
Literatur
M. Muth: Digital Printing for Technical Textiles - Digital Lecture/Learning contents on the online platform Moodle

Modulname	Modulcode
Production Engineering	MTTT25-60/60
Modulverantwortliche/r	Fachbereich
Mathias Beer	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang
Master Management of Textile Trade and Technology, 2017, Technical Textiles

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
All Creditpoints 90 716 714 2017				
1. Semester	2	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	2	1	Pflichtfach	6.0

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	High Performance Fibers	Pflicht	2.00	60
2.	Digital Printing for technical textiles	Pflicht	2.00	60
3.	Advanced Narrow fabrics	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			6.00	180

Lernergebnisse / Kompetenzen des Moduls (learning outcomes)

WHAT:

The students acquire deep understanding of technical textile structures like high performance fiber materials and technical narrow fabrics and digital printing technologies and the ability to adapt the knowledge of all relevant processes to new product applications. WITH WHAT:

The students apply their gained theoretical knowledge of high performance fiber materials, narrow fabric structures and digital printing technologies to various technical application settings and determine process setups and parameters to achieve best results in development and production scenarios.

WHAT FOR:

The students have broad understanding of chemical and physical background of high-performance fiber and know the relations between the chemical and molecular structure and function of these fibers. They can select most adequate fiber for a certain application and argument the decision with data about the physical, chemical, thermal and other properties. Based on the selected fibers the students can analyze and develop technical narrow fabric structures, with their knowledge about the machine technology and the production processes. Further, the students can analyze and determine the necessary process parameters as well as pattern structures and evaluate technical applications of narrow fabric structures. Based on the advanced knowledge in the area of digital textile printing the students can select adequate printing systems, i.e. hardware, software and

substrates for technical and other special applications. They can apply as well some functional treatments for technical textiles such as water repellents, antimicrobials, antistatic and hydrophilic finishes.
Zu erbringende Prüfungsleistung
Written examination, 120 Min.
Stellenwert der Modulnote in der Endnote
$(6CP / 53CP) * 0,65$

Modulname		Modulcode	
Production Engineering		MTTT25-60/60	
Veranstaltungsname		Veranstaltungscode	
High Performance Fibers		MTTT25-60/MTTT-60	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Boris Mahltig	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	20	30	60

Lehrform
Vorlesung
Inhalte
• General introduction into high performance fibers and high performance properties • Introduction to properties, units and testing methods • For each fiber: - chemical background - preparation - structure - properties - advantages - disadvantages and - textile applications View on specific fibers: • Polyacrylnitril PAN; PAN modifications, copolymers, Preox-fibers • Chlorinated Fibers; Polyvinylchloride PVC, syndio-PVC, chlorinated PVC, Polyvinylidenchloride • Fluorinated Fibers; Polyvinylfluoride, Polyvinylidenfluoride, Polytetrafluoroethylene PTFE • Polyvinylalcohol; water-soluble and water-unsoluble modifications • Aramids; different types • Polyimide • Polyamidimid • Polyetherimid • Gel-Spun High-Performance Polyethylene Fibers, Dyneema fibers • Future technologies: fibers from carbonnanotubes and graphene • Polyetherketones • Polyphenylensulfide • Special polyesters, special polyamides; concept of "liquid crystalline polymers and fibers" • Inorganic fibers, as carbon fibers, glass fibers, basalt fibers, ceramic fibers, silicon carbide fibers / Nicalon • Functional cellulosic fibers, lyocell process • Biopolymers and fibers
Literatur

J. W.S. Hearle: High Performance Fibres, Woodhead Publishing, 2001
W. Loy, Chemiefasern für technische Textilprodukte, Deutscher Fachverlag, 2008
Mahltig, B., & Grethe, T. (2022). High-performance and functional fiber materials—a review of properties, scanning electron microscopy SEM and electron dispersive spectroscopy EDS. Textiles, 2(2), 209-251.
Mahltig, B. (2021). High-performance fibres—a review of properties and IR-Spectra. Tekstilec, 64(2), 96-118.
B. Mahltig, Y. Kyosev, “Inorganic and Composite Fibers” Elsevier, Cambridge, 2018, 343 pages, ISBN 978-0-08-102228-

Modulname		Modulcode	
Production Engineering		MTTT25-60/60	
Veranstaltungsname		Veranstaltungscode	
Digital Printing for technical textiles		MTTT25-60/MTTT-60	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Mathias Muth	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung
Inhalte
WHAT: Students will develop expertise in digital printing technologies and their applications within the technical textile industry. WITH WHAT: This objective will be achieved through an in-depth exploration of both conventional and digital printing technologies, practical insights into digital printing processes, and a thorough examination of the technological principles governing digital printing machines. WHAT FOR: This expertise enables students to effectively address the evolving demands of the textile printing market, utilize advanced digital printing processes, and integrate innovative technologies in the production of technical textiles. Detailed Learning Objectives: 1. Market Awareness: Analyze relevant market data to contextualize the importance of textile printing. 2. Fundamental Principles: Examine the basic principles of textile printing, identifying influencing factors that impact the quality and effectiveness of printing processes. 3. Comparative Analysis of Printing Technologies: Identify and differentiate between conventional printing techniques and various digital printing methods, including roll-to-roll, direct-to-garment, direct-to-film, and dye-sublimation transfer printing. 4. Pre-treatment Significance: Assess the critical role of pre-treatment in digital printing, focusing on its effects on print quality and durability. 5. Machine Mechanisms: Investigate the operation of digital printing machines along with their textile peripherals, exploring integrated systems for pre-treatment, fixing, drying, and post-washing.

6. Printhead Technologies: Explore various print head technologies, including the distinctions in drop formation between piezo, bubble jet, and valve jet mechanisms, and compare continuous flow with drop-on-demand systems.
7. Color Management: Analyze the fiber-colorant relationship and the significance of color management software, focusing on profiling techniques essential for achieving accurate color reproduction.
8. Ink Criteria: Evaluate the essential requirements of digital printing inks, including composition, viscosity, and adhesion properties necessary for successful printing on technical textiles.

Studien-/Prüfungsleistung

written examination

Literatur

M. Muth: Digital Printing for Technical Textiles - Digital Lecture/Learning contents on the online platform Moodle
Leslie W. C. Miles: Textile Printing, Society of Dyers and Colourists, 2003
A. D. Broadbent: Basic Principles of Textile Coloration, Society of Dyers & Colourists, 2001
H. Ujiie: Digital Printing of Textiles, Woodhead Publishing, 2006
Ch. Cie: InkJet Textile Printing, Woodhead Publishing, 2015 Digital Textile, different issues, World Textile Information Network

Modulname		Modulcode	
Production Engineering		MTTT25-60/60	
Veranstaltungsname		Veranstaltungscode	
Advanced Narrow fabrics		MTTT25-60/MTTT-60	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Mathias Beer	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung
Inhalte
- Machine technology and processes used for the production of technical narrow fabric structures such as: - Weft knitting (small circular) - Narrow Warp knitting - Narrow weaving - Braiding - Consideration of process parameters, influencing the resulting fabric characteristics of technical narrow fabrics - Analysis of pattern options and structures - Research of technical applications and methodical exercises to analyze, describe and evaluate the individual structures due to different requirements for specific businesses
Literatur
Beer, M.: Advanced Narrow Fabrics - Digital Lecture/Learning contents on the online platform Moodle Weber, M. O.; Weber, K.-P.: Wirkerei und Strickerei, dfv Fachbuch, 2014 Kyosev, Y., Braiding technology for textiles, Woodhead Publishing, 2014 Essig, E., Nadel-Bandwebtechnik, Jakob Müller Institute of Narrow Fabrics, 2005 Engels, H.: Flechttechnologie - Schmucktextilien - Technische Textilien, Arbeitgeberkreis Gesamttextil/Industrieverband Deutscher Bandweber und Flechter e.V. (Hrsg.) Eschborn, 1996 Atkins and Pearce Handbook of Industrial Braiding, F. Ko, C. Pastore, and A. Head, Atkins and Pearce, Covington KY, October, 1989 H A McKenna, J W S Hearle, N O'Hear, Handbook of fibre rope technology, Woodhead Publishing Limited

Modulname	Modulcode
Scientific Methods and Project Applications	MTTT25-40
Modulverantwortliche/r	Fachbereich
Thomas Grethe	Textil- und Bekleidungs- technik

Zuordnung zum Studiengang

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Dauer des Moduls	Modultyp	ECTS
Kreditpunktekonto FB07 MTTT - PO2025				
1. Semester	3	1	Pflichtfach	6.0
Kreditpunktekonto FB07 MTTT TR - PO2025				
1. Semester	3	1	Pflichtfach	6.0

Empfohlene Voraussetzungen
none

Zugehörige Lehrveranstaltungen:

Nr.	Veranstaltungsname	Belegungstyp	SWS	Workload
1.	Master Projects	Pflicht	3.00	120
2.	Applied Philosophy of Science	Pflicht	2.00	60
Summe (Pflicht und Wahlpflicht)			5.00	180

Stellenwert der Modulnote in der Endnote
(6CP / 53CP) * 0,65

Modulname		Modulcode	
Scientific Methods and Project Applications		MTTT25-40	
Veranstaltungsname		Veranstaltungscode	
Master Projects		MTTT25-41	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester		nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
3.00	45	75	120

Lehrform
Projekt
Studien-/Prüfungsleistung
Testat

Modulname		Modulcode	
Scientific Methods and Project Applications		MTTT25-40	
Veranstaltungsname		Veranstaltungscode	
Applied Philosophy of Science		MTTT25-42	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Thomas Grethe	Textil- und Bekleidungstechnik		Pflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester		nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	30	60

Lehrform
Vorlesung
Lernergebnisse / Kompetenzen (learning outcomes)
Students acquire basic knowledge of the philosophy of science which is necessary for evidence-based work in the natural and engineering sciences, and develop their own options for action as scientists by • familiarising themselves with fundamental concepts in scientific theory • familiarising themselves with the historical development of science • reflecting on the practical current science • establishing a link to current developments in science and society to be able to make scientifically sound and evidence-based decisions in natural sciences and engineering and to implement these in practical applications
Inhalte
Familiarisation with and reflection on • Subject of science • theories and models • various. Theories of science e.g. according to Kuhn/Popper/Feyerabend • Induction problem, realism and anti-realism • Nature and integrity of modern science demonstrated using a contemporary example • Significance of measured values, e.g. in clinical studies • Freedom of science in Germany and internationally • Comparison of the history of science in Europe and China up to the present day • Patent system • Publication system and its quality standards • Evaluate a current topic of social relevance, e.g. neural networks and machine ethics

- Science funding
- Scientific career planning, e.g. doctorate

Furthermore:

- get to know the structure of journal articles and criticise an article
- familiarise yourself with literature databases and carry out a literature search

Studien-/Prüfungsleistung

written examination, 60 Min.

Literatur

- Samir Okasha, Philosophy of Science: Very Short Introduction, 2. Edition ISBN: 9780198745587 <http://dx.doi.org/10.1093/actrade/9780198745587.001.0001>
- The Stanford Encyclopedia of Philosophy
The Metaphysics Research Lab, Philosophy Department, Stanford University, Stanford, CA 94305-4115
Editors: Edward N. Zalta and Uri Nodelman
ISSN 1095-5054
<https://plato.stanford.edu/>
- Richard P. Feynman, Some remarks on science, pseudoscience, and learning how to not fool yourself. Caltech's 1974 commencement address.
<https://calteches.library.caltech.edu/51/2/CargoCult.htm>
- Colin A. Ronan, The Shorter Science and Civilisation in China
Volume 1, 1980, ISBN: 9780521292863

ELECTIVES

QUALITY MANAGEMENT OF TEXTILE HYGIENE	84
WEFT KNITTING	86
TEXTILE WEARABLES	87
SPECIAL METHODS OF QUALITY MANAGEMENT	88
COMMUNICATION VIA PODCAST	89
APPLIED SUSTAINABILITY MANAGEMENT	90
DIGITAL RESPONSIBILITY	91
CIRCULAR ECONOMY	92
CLIMATE PROTECTION AND RESOURCE EFFICIENCY	93
SOCIAL IMPACT OF CLIMATE CHANGE	95

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Quality Management of Textile Hygiene		MTTT25-315/MA-805	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Lutz Vossebein	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
2. Semester	1	nur im Sommersemester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung/Übung
Inhalte
WHAT: The students will learn basics of hygiene and microbiology in general as well as specific knowledge for laundries and textile service enterprises in order to ensure a correct implementation of e.g. EN 14065 (RABC-System). WITH WHAT: Students are confronted with legal regulations from different hygiene demanding areas. Within the lecture students take samples from (textile) surfaces by using contact slides and WHAT FOR: They learn to interpret the results after appropriate incubation time and growing of microorganisms. They will be able to distinguish between different hygiene levels in relevant fields.
Studien-/Prüfungsleistung
Written Examination, 60 min
Literatur
I.K. Hosein, P.N. Hoffman, S. Ellam, T.-M. Asseez, A. Fakokunde, J. Silles, E. Devereux, D. Kaur, J. Bosanquet Summertime Bacillus cereus colonization of hospital newborns traced to contaminated, laundered linen J Hosp Inf 2013;85(2):149-154 Sattar S.A., Springthorpe S., Mani S., Gallant M., Nair RC., Scott E., Kain J. Transfer of bacteria from fabrics to hands and other fabrics: development and application of a quantitative method using Staphylococcus aureus as a model. J Appl Microbiol. 2001 Jun;90(6):962-70 Wiener-Well Y., Galuty M., Rudensky B., Schlesinger Y., Attias D., Yinno Nursing and physician attire as possible source of nosocomial infections. Am J Infect Control. 2011 Sep;39(7):555-9 Linke S., Gemein S., Koch S., Gebel J., Exner M. Orientierende Studien zur Inaktivierung von Staphylococcus aureus beim Wäscheprozess HygMed 2011; 36 [1/2]: 25-29 Bloomfield SF., Exner M., Nath KJ., Scott EA., Signorelli C. The infection risks associated with clothing and household linens in home and everyday life settings, and the role of laundry. International Scientific Forum on Home Hygiene (IFH),

National electronic Library of Infection City eHealth Research Bellante, S., Engel, A., Hatice, T., Neumann, A., Okyay, G., Peters, M., Vossebein, L Hygienische Aufbereitung von Textilien in Privathaushalten - eine Studie aus der Praxis HygMed 2011; 36 [7/8]: 300-305 To be used as portals: PubMed: <http://www.ncbi.nlm.nih.gov/pubmed/Robert-Koch-Institute>, RKI: http://www.rki.de/EN/Home/homepage__node.html?__nnn=true Verbund für Angewandte Hygiene, VAH: <http://www.vah-online.de/World-Health-Organisation>, WHO: <http://www.who.int/en/>

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Weft Knitting		MTTT25-325/MA-807	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Marcus Weber	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	jedes 2. Semester	englisch	40 Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
First courses are made in knitting with self-reliant working on machines. In these exercises students work out: • Arranging the knitting machine, knitting structural elements and important patterns • Begin and ending of knitted fabric, cutting off process • Racked Cardigan Patterns • Structures with knocking over cam, stitch transfer, narrowing and widening • Construction and operation of Links-Links (LL)-flat knitting machine, purl pattern • Analysis and construction of a knitted fabric After these basic exercises they learn to programme professional CAD systems for flat knitting machines. The programmes are realized in a knitted fabric afterwards on a Jacquard knitting machine.
Studien-/Prüfungsleistung
Delivery of portfolio including all developed samples and detailed description of development.
Literatur
Lecture script Instruction manual Stoll M1 Plus

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Textile Wearables		MTTT25-340/MA-820	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Christof Breckenfelder	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	Unregelmäßig	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung/Praktikum
Inhalte
The basic concept, construction and functionality of Wearable Textiles will be given in the lecture. Diverse sections of this subject will deal with aspects of computing. The lecture will involve aspects of programming and the design of the electric schematic including textile sensor integration and finally deal with clothing integration aspects.
Studien-/Prüfungsleistung
Portfolioarbeit (Präsentation eines Prototypens innerhalb des Kurses)
Literatur
Schneegass, Stefan; Amft, Oliver (2017): Smart Textiles. Cham: Springer International Publishing.

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Special Methods of Quality Management		MTTT25-355/MA-827	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Bastian Quattelbaum	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	jedes 2. Semester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung/Übung
Inhalte
Introduction into some methods of Quality Management to get an overview of the most common methods: - Quality Definitions - Perceived Quality (KANO) - QFD - DR - FMEA - Turtle, SIPOC, Swimlanes, SOP - GRR - etc

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Communication via Podcast		MTTT25-360/MA-897	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Bastian Quattelbaum Mathias Beer	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	jedes 2. Semester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Vorlesung/Übung

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Applied Sustainability Management		MTTT25-375	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Maike Rabe Mathias Beer	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	nur im Wintersemester		Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
4.00	60	90	150

Lehrform
Vorlesung/Übung
Inhalte
In this subject, students work in teams of two to six students on individual projects aimed at improving sustainability in the textile industry. The tasks are set by partners from industry and society at the start of the semester and are completed by the students in teams over the course of the semester under the guidance of lecturers and researchers (Research Institute for Textiles and Clothing). The tasks vary and are orientated towards the current needs of the project partners. Examples include the development of the recyclability of sportswear, the investigation and application of recycled fibres for textiles and clothing articles, the development of partial aspects of a sustainability report, the economic comparison of two differently sustainable process routes or the analysis of waste water from textile finishing.
Studien-/Prüfungsleistung
Report and presentation to the project partners, 20 minutes
Literatur
Rouette, H.-K.: Enzyklopädie TextilveredlungDIN EN ISO 14040:2021-02, Umweltmanagement - Ökobilanz - Grundsätze und RahmenbedingungenJournal articles - students' own literature research

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Digital Responsibility		MTTT25-390	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Monika Eigenstetter	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	in jedem Semester	englisch	Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Seminaristische Lehrveranstaltung
Inhalte
Content Corporate Digital Responsibility Privacy Impact Assessment and Data Protection Impact Assessment (DPIA) Social Engineering and Human Hacking Basic Strategies for Cyber Security Compliance and Culture for Data Security
Literatur
EU Commission [Online]: When is a Data Protection Impact Assessment (DPIA) required? European Parliament [Online]: EU AI Act: first regulation on artificial intelligence. W3 School [Online] Cyber Security Tutorial https://www.w3schools.com/cybersecurity/ Weißberger, B., Botterman, P., Hilger, A., Trefzger, W. (2023). Digital nachhaltig erfolgreich! Das Handbuch für die doppelte Transformation des Mittelstands in NRW. Hrsg. CSR Digital. CSR Digital. Nachhaltig Wettbewerbsfähig. Unterlagen und Arbeitsmaterialien zum Forschungsprojekt. https://csr-digital.org/ CDR Initiative der Bundesregierung Koza, E., Öztürk, A. & Willer, M. (2015). Social Engineering and Human Hacking. Strategien zur Prävention und Abwehr von Manipulationstechniken in der IT. Aktuelle Journal-Artikel

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Circular Economy		MTTT25-395	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Monika Eigenstetter	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	in jedem Semester	englisch	20 Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Seminar
Inhalte
Content • The 10 R Model of Circularity and related processes • Design Principles for Circularity • Challenges and Dilemmas of Design Principles • Treating Textile Waste • Options of Reusing Materials • Best Practices Products and Services (Guest Lectures from Companies), • Selected Circular Business Models in Combination with AI • Selected Certificates: GRS, C2C, Zero Waste to Landfill
Literatur
DIN Modell der R-Strategien. https://www.din.de/de/forschung-und-innovation/themen/circular-economy/normenrecherche/modell-der-r-strategien Ellen MacArthur Foundation, Artificial intelligence and the circular economy: AI as a tool to accelerate the transition (2019) Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC (Eco Design Requirements, ESPR) EU Strategy for Sustainable and Circular Textiles Communication from the European parliament, the council, the European economic and social committee and the committee of regions (EU Textile Strategy) UN (2020), UN Environment Programme. Sustainability and Circularity in the Textile Value Chain. UNEP circularity platform <u>Additional regulation of the European Union</u> OECD library Scientific publications on specific products and services

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Climate Protection and Resource Efficiency		MTTT25-400	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Monika Eigenstetter	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	in jedem Semester	englisch	20 Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
2.00	30	60	90

Lehrform
Testat, Study Work
Inhalte
Content CO2 circle, Green house gases, planetary boundaries Material Flows, fossil, no-fossil Product Carbon Footprint (PEF), Corporate Carbon Footprint (CCF), Eco Bilancing, Life Cycle Costing (LCC) Assessing Carbon footprint and ecological footprint Critical reflection on functional unit and the context of doing LCA Methods of Assessing the Ecological Footprint (Umberto) Higg Index Reducing the ecological impact with Certificates: ZDHC, Oecotex made in Green, ... Methods of Traceability and Transparency via certificates Green IT
Literatur
Nelles, D., Serrer C. (2021). Small Gases, Big Effect: This Is Climate Change. Particular Books. Bauermann, C. et al (2021). Minderungspfade. Informationen zur politischen Bildung. Green House Gas Protocol. https://ghgprotocol.org/ Haas, M. (2024). Sustainable Products. Springer Sandin, G., Roos, S., Johansson, M. (2019). Environmental impact of textile fibers – what we know and what we don't know. Fiber bible part 2, Göteborg. Klöppfer, W., Grahl, B (2014). Life Cycle Assessment (LCA): A Guide to Best Practice (English Edition) Wright, L. (2023). The Power of Life Cycle Assessment: Data Driven Decision Making for Environmental Sustainability. ACLCA Website Worldly Learning Center

United nations Environment Programme (2015). Guidance on Organizational Life Cycle Assessment. <https://www.lifecycleinitiative.org/library/guidance-on-organizational-life-cycle-assessment/>
WBGU (2019). Flagship Report: Towards our Common Digital Future. https://www.wbgu.de/fileadmin/user_upload/wbgu/publikationen/hauptgutachten/hg2019/pdf/WBGU_HGD2019_S.pdf
Website Umberto, Training Material
Websites Certificates

Modulname		Modulcode	
Electives		MTTT25-300-M1	
Veranstaltungsname		Veranstaltungscode	
Social Impact of Climate Change		MTTT25-405	
Lehrende/r	Fachbereich	Lehreinheit	Belegungstyp (P/WP/W)
Monika Eigenstetter	Textil- und Bekleidungstechnik		Wahlpflicht

Vorgesehenes Studiensemester	Alternativ empfohlene Fachsemester	Angebotshäufigkeit	Sprache	Gruppengröße
1. Semester	2	in jedem Semester	englisch	20 Personen

SWS	Präsenzstudium	Selbststudium	Workload in Summe
1.00	15	75	90

Lehrform
Testat, Study Work
Inhalte
Content Human Rights Due Diligence Selected Certificates and Initiatives: Gender OSH Attribution studies: Extreme weather events and climate change Gender and Climate change Vulnerable groups, Intersectionality Social Life Cycle Analysis (sLCA) (Company) Strategies to mitigate risks for women and vulnerable groups in the textile and fashion industry and emergency management
Literatur
Carroll, A. & Brown, J. (2022) Business & Society: Ethics, Sustainability & Stakeholder Management: Ethics, Sustainability, and Stakeholder Management EU-OSH (2014). Mainstreaming gender into occupational safety and health practice. https://osha.europa.eu/en/publications/mainstreaming-gender-occupational-safety-and-health-practice Otto, F., Pybus, S. (2025). Climate Injustice: Why We Need to Fight Global Inequality to Combat Climate Change. Greystone Books. van Oldenborgh, G.J., van der Wiel, K., Kew, S. et al. Pathways and pitfalls in extreme event attribution. Climatic Change 166, 13 (2021). https://doi.org/10.1007/s10584-021-03071-7 United Nations Framework Convention on Climate Change: Introduction to Gender and Climate Change https://unfccc.int/gender United Nations Environment Programme: Guidelines for Social Life Cycle Assessment of Products and Organisations 2020 (sLCA). https://www.lifecycleinitiative.org/library/guidelines-for-social-life-cycle-assessment-of-products-and-organisations-2020/

Unites Nations, General Assembly (2024). Analytical study on the impact of loss and damage from the adverse effects of climate change on the full enjoyment of human rights, exploring equity-based approaches and solutions to addressing the same
<https://documents.un.org/doc/undoc/gen/g24/144/90/pdf/g2414490.pdf>
UNPRPD, UN Women (2021). Intersectionality resource guide and toolkit
An Intersectional Approach to Leave No One Behind. <https://wrd.unwomen.org/practice/resources/intersectionality-resource-guide-and-toolkit>
Actual scientific articles and Case Studies
Website: <https://www.worldweatherattribution.org/>

BENOTUNG

Die Bewertung der Prüfungsleistungen erfolgt entsprechend § 9 der Prüfungsordnung.