

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK1	Mathematics for Engineers	Prof. Fischer
<b>Content and Qualification Objectives</b>	<p>Basic mathematics knowledge is expanded and deepened, and skills are conveyed and consolidated in this module. The students acquire knowledge of the following subject matters:</p> <ul style="list-style-type: none"> <li>- Differential and integral calculus for functions of several variables (partial derivation, chain rule, Taylor Formula, implicit functions, extremum with or without restrictions, non-linear systems of equations, double and triple integrals, special coordinate systems, line integrals and surface integrals, integral theorems, selected applications),</li> <li>- Partial differential equations (linear partial differential equations of second order, Fourier series, discretisations),</li> <li>- Probability calculus and mathematical statistics (combinatorics, probability, random variables, distribution functions, descriptive statistics, confidence estimate and statistical tests).</li> </ul> <p>The knowledge and skills acquired enable the students to think through subject-relevant problems mathematically and logically, to formulate them and to apply knowledge and abilities subject-specifically. With that the students have essential mathematical qualifications and abilities to help them recognize and evaluate the connections in the field of mechanical engineering and to solve special engineering problems.</p>	
<b>Forms of Teaching and Studying</b>	The module consists of a two-semester lecture of 2 SWS each semester and a two-semester discussion section of 2 SWS each semester and self-study.	
<b>Requirements of Participation</b>	Well-founded basic mathematical knowledge (Bachelor degree level) is the prerequisite for attendance.	
<b>Application</b>	The module is a compulsory module for the non-consecutive Master's program Textile and Ready-Made Clothing Technology. This module is a prerequisite for modules MB-MaTK4, MB-MaTK5, MB-MaTK10, MB-MaTK11 and MB-MaTK12.	
<b>Requirements of Credit Points Awarded</b>	The credit points are awarded when the module examination is passed. The module examination consists of a written test of 180 minutes.	
<b>Credit Points and Grades</b>	10 credit points can be awarded from the module. The Grade of the test equals the module grade.	
<b>Module Frequency</b>	The module is offered each academic year, starting in the winter semester.	
<b>Working Hours</b>	There are 300 hours of work required.	
<b>Module Duration</b>	The module spans 2 semesters.	

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK2	Computer Applications in Mechanical Engineering	Prof. Stelzer
<b>Content and Qualification Objectives</b>	<p>The module introduces the basics of informatics, based on example applications from the context of mechanical engineering. The necessary basic knowledge of hardware, presentation of information and data modelling as well as operating systems is taught and consolidated in the discussion. Students are practically trained to use complex computer systems through a 3D CAD system. Part of this education is learning accessory modelling techniques, sketch planning and parameter techniques. The required basic software (e.g. MathCAD) is taught as well. The knowledge and proficiency acquired qualify the students to use modern hard and software systems for working on typical engineering tasks in the field of mechanical engineering and in the subject field.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of a one-semester lecture of 2 SWS, a one-semester discussion section of 2 SWS, a one-semester tutorial of 1 SWS and self-study.</p>	
<b>Requirements of Participation</b>	<p>Basic proficiency in using a computer including WINDOWS operating system. Literature recommended for preparing for the module: Gumm, H.-P., Sommer, M.: Einführung in die Informatik. Oldenbourg Wissenschaftsverlag, 2002.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for further basic modules and field modules MB-MaTK4, MB-MaTK5, MB-MaTK10, MB-MaTK11 and MB-MaTK12.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of a written test of 150 minutes.</p>	
<b>Credit Points and Grades</b>	<p>5 credit points can be awarded for the module. The Grade of the test equals the module grade.</p>	
<b>Module Frequency</b>	<p>The module is offered in the winter semester of each academic year.</p>	
<b>Working Hours</b>	<p>There are 150 hours of work required.</p>	
<b>Module Duration</b>	<p>The module spans 1 semester.</p>	

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK3	Technical Mechanics	Prof. Ulbricht
<b>Content and Qualification Objectives</b>	<p>The module instructs students about formulating and solving problems of statics and stability. Based on the concept of the stiff body and independently introduced loads (force and momentum), the equilibrium balances are postulated as basic laws of statics. They enable calculating the support and section reactions of statically determined even and spatial support units. Friction problems, as well as moments of area of the first and second order, are also included in these basics. The simple strains tension, pressure and thrust prepare the understanding of general tension and distortion states. Tension and distortion fields of mere torsion, bending and horizontal force thrust are calculated for elastic sticks. The evaluation of the results is based on different stability hypotheses. The module enables the students to assess and evaluate the functional safety of simple element parts and design in the field of mechanical engineering. The students are qualified to apply these abilities to engineering problems of this field and to develop solutions.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of a two-semester lecture of 2 SWS each semester, a two-semester discussion section of 2 SWS each semester, two-semester tutorial of 1 SWS and self-study.</p>	
<b>Requirements of Participation</b>	<p>Knowledge in the fields of: elementary algebra and geometry, trigonometry, vector analysis, linear equation systems, functions with a variable, common derivations, specific integrals, principal axes transformation of symmetric matrices. Furthermore, basic knowledge in the fields of physics and material engineering. Literature recommended for preparing for the module: Balke, H.: Einführung in die Technische Mechanik/Statik. Göldner, H., Holzweißig, F.: Leitfaden der Technischen Mechanik.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for further basic modules and field modules MB-MaTK4, MB-MaTK5, MB-MaTK10, MB-MaTK11 and MB-MaTK12.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of a written test of 180 minutes.</p>	
<b>Credit Points and Grades</b>	<p>10 credit points can be awarded by the module. The Grade of the test equals the module grade.</p>	
<b>Module Frequency</b>	<p>The module is offered each academic year, starting in winter semester.</p>	
<b>Working Hours</b>	<p>There are 300 hours of work required.</p>	

**Module Duration**

The module spans 2 semesters.

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK4	Machine Elements / Design	Prof. Schlecht
<b>Content and Qualification Objectives</b>	<p>In this module, the subject of design is introduced. The demands on the engineering designs to fulfill stress and production requirements will be demonstrated. The typical machine elements are introduced and consolidated by means of selected elementary component groups with regard to function, usage, selection, calculation, and design on the one hand, and practically relevant examples on the other hand. The students are to integrate constructive thinking, to develop variants and to economically design simple machine elements. They are qualified to apply the knowledge acquired to typical production processes and to outline variants of a solution. Furthermore, the students acquire the ability to assess the fields of use of typical machine elements, to select them, to design them in the assembly and to calculate them by using modern support. The acquired knowledge and abilities have been developed so that they can be applied to all fields of mechanical engineering.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of a one-semester lecture of 2 SWS, a one-semester discussion section of 1 SWS and self-study.</p>	
<b>Requirements of Participation</b>	<p>The competencies gained in modules MB-MaTK1, MB-MaTK2, and MB-MaTK3 are required. Literature recommended for preparing for the module: Kurz, Hintzen, Laufenberg: Konstruieren Gestalten Entwerfen. Hoischen, Hesser: Technisches Zeichnen.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for field module MB-MaTK12.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of a written test of 90 minutes and an assignment of 20 hours.</p>	
<b>Credit Points and Grades</b>	<p>5 credit points can be awarded for the module. The module grade is 2/3 the grade of the written test and 1/3 the grade of the assignment.</p>	
<b>Module Frequency</b>	<p>The module is offered in the winter semester of each academic year.</p>	
<b>Working Hours</b>	<p>There are 150 hours of work required.</p>	
<b>Module Duration</b>	<p>The module spans 1 semester.</p>	

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK5	Mechanisms	Prof. Modler
<b>Content and Qualification Objectives</b>	<p>The module is about the reflection of irregularly transmitting gearings/mechanisms (linkages, cam mechanism, combined gears) and teaches the fundamentals of gearing technology (gear system, gear kinematics, kinematical analysis, motion design, dimensioning principles, kinetostatics). The information presented in the lecture is reinforced in the discussion through examples. In this module, the students learn the methods and processes (analytical and graphical) of kinematical and kinetostatical analysis of horizontal mechanisms and they are able to develop an idea of non-linear motion. They learn to combine the whole reflection of traditional gearing technology with tasks from drive, control and automation technology (mechatronics), to apply the problems of the subject and to develop solutions.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of a one-semester lecture of 2 SWS, a one-semester discussion section of 1 SWS and self-study.</p>	
<b>Requirements of Participation</b>	<p>The competencies gained in modules MB-MaTK1, MB-MaTK2, and MB-MaTK3 are required. Literature recommended for preparing for the module: Luck, Modler: Getriebetechnik - Analyse, Synthese, Optimierung. Kerle, Pittschellis: Einführung in die Getriebelehre.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for module MB-MaTK12.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of a written test of 120 minutes.</p>	
<b>Credit Points and Grades</b>	<p>5 credit points can be awarded for the module. The module grade is the grade of the written test.</p>	
<b>Module Frequency</b>	<p>The module is offered in the winter semester of each academic year.</p>	
<b>Working Hours</b>	<p>There are 150 hours of work required.</p>	
<b>Module Duration</b>	<p>The module spans 1 semester.</p>	

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK6	Ergonomics / Management	Prof. Schmauder
<b>Content and Qualification Objectives</b>	<p>The module deals with the fields of ergonomics/technical management and the basics of business management. In the subject "Ergonomics/Technical Management," the students learn to recognize the importance of human beings in the working system. The basics of human resource management are conveyed, and abilities for realizing ergonomical knowledge in technical management are acquired.</p> <p>Interfaces to the fields of industrial and organisational psychology as well as industrial medicine are included. Consequently, the students learn about the importance of ergonomics, understand current problems and tendencies of development, also working system design as well as fundamentals and design knowledge about the elements human being, expedient, working place, working environment, working order and working organisation, about management and processes in companies.</p> <p>In the field of business management, there is instruction in the legal forms and structures of companies, financing processes, accountancy structure of companies, methods of capital budgeting, costing, costs of sale and cost comparison methods. This information is then explored further with practical examples. In this module the students learn to understand the importance of human beings and their requirements of performance as central element of the working system and working design as challenge and attractive working field for working in a company. The students are enabled to assess engineering work regarding to economics and to knowledgeably cooperate with graduates in business management.</p>	
<b>Forms of Teaching and Studying</b>	The module consists of a two-semester lecture of 2 SWS each semester, a one-semester discussion section of 1 SWS and self-study.	
<b>Requirements of Participation</b>	<p>Knowledge in the field of work organisation and setting work conditions appropriate for human beings. Fundamentals of physical work environmental factors, such as sound and vibration, as well as fundamentals of constructive product design.</p> <p>Literature recommended for preparing for the module: Lukzak, H.: Arbeitswissenschaft. Institut für angewandte Arbeitswissenschaft (IfaA), (Hrsg): Arbeitsgestaltung in Produktion und Verwaltung.</p>	
<b>Application</b>	The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It fulfils the requirements for the modules MB-MaTK10, MB-MaTK11 and MB-MaTK12.	
<b>Requirements of</b>	The credit points are awarded when the module examination is	

<b>Credit Points Awarded</b>	passed. The module assessment consists of a 90-minute test on the subject of technical management under labor science aspects, and a 90-minute test covering the basic concepts of business administration, which has to be passed.
<b>Credit Points and Grades</b>	7 credit points can be awarded for the module. The module grade is 2/5 the grade of the written test of the subject "Ergonomics/Technical Management" and 3/5 the grade of the subject Basics of Business Management.
<b>Module Frequency</b>	The module is offered each academic year. However, the subject "Ergonomics/Technical Management" is offered in the winter semester, whereas the subject "Basics of Business Management" is offered in the summer semester.
<b>Working Hours</b>	There are 210 hours of work required.
<b>Module Duration</b>	The module spans 2 semesters.



<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK7	Textile Materials and Testing Technology	Prof. Cherif
<b>Content and Qualification Objectives</b>	<p>This module provides instruction in the chemistry of fibre materials as well as textile fibre materials and textile testing technology. Starting with the general chemical basics, the subject "Chemistry of Fibre Materials" teaches the essential synthesis principles and characterization methods of fibre forming polymer, their applications as well as the chemical constitution and physical structure of natural and chemical fibre materials. The students become qualified to analyze structure-property-relations, and through this, they recognize the reaction of fibre materials to stress. Through practical activities, the students acquire knowledge and proficiency in independently measuring and testing methods of qualitative and quantitative determination of states and properties of textile fibre materials as well as textile semifinished and finished products. The students are in a position to apply the knowledge and proficiency acquired subject-specifically and interdisciplinarily to engineering tasks, especially regarding the complexity of textile technological and ready-made clothing technological solutions for different industries.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of a one-semester lecture of 2 SWS as well as a two-semester lecture of 2 SWS each semester, a one-semester practical training of 1 SWS and self-study.</p>	
<b>Requirements of Participation</b>	<p>Well-founded mathematical, physical, and chemical basic knowledge at Bachelor degree level.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for specialization modules MB-MaTK10, MB-MaTK11 and MB-MaTK12.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of a written test of 90 minutes of the subject "Chemistry of Fibre Materials", a written test of 150 minutes of the subject "Textile Fibre Materials and Testing" <del>as well as an additional test concerning the practical training. This test consists of an experimental work including a record and requires 60 minutes of work.</del></p>	
<b>Credit Points and Grades</b>	<p>10 credit points can be awarded for the module. The module grade is <del>4/141/3</del> the grade of the written test of the subject "Chemistry of Fibre Materials" <del>and 7/142/3</del> the grade of the written test of the subject "Textile Fibre Materials and Testing" <del>and 3/14</del> the grade of the other examinations.</p>	
<b>Module Frequency</b>	<p>The module is offered each academic year, starting in the winter semester.</p>	

<b>Working Hours</b>	There are 300 hours of work required.
<b>Module Duration</b>	The module spans 2 semesters.

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK8	Processes and Machines of Textile Technology	Prof. Cherif
<b>Content and Qualification Objectives</b>	<p>The module expands on basic knowledge in the field of yarn and fabric production technology. In the field of yarn production technology, the students learn definitions and fundamentals of spinning fibre yarn production as well as physical fundamentals and process levels of short staple, woollen and worsted spinning. They learn about the connection of fibre parameters, spin ability and yarn characteristics. Due to the importance of the main product groups of textiles, and the basics of constructions (weave pattern technology) of woven, knitted, and nonwoven fabrics, you will be expected to understand the physical essentials of yarn and fiber processing on textile machines. Students' understanding of the working processes of weaving, warp knitting and knitting technology including the preparation process is based on these fundamentals. The students acquire knowledge about the technologically important functional groups and their constructive as well as drive and control principles. Using examples of typical textile machines, the acquired knowledge and competences are enhanced. In this module, the students are able to acquire further information and skills in the field of textile technology, especially technical textiles and their applications in e.g. mechanical engineering, vehicle design, civil engineering and medicine. Based on these fundamentals, the students are able to work in innovative fields of research.</p>	
<b>Forms of Teaching and Studying</b>	The module consists of a one-semester lecture of 6 SWS, a one-semester practical training of 3 SWS and self-study.	
<b>Requirements of Participation</b>	Well-founded mathematical, physical, and chemical basic knowledge, and basic skills in working with WINDOWS OS computers, at Bachelor degree level.	
<b>Application</b>	The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for specialization modules MB-MaTK10, MB-MaTK11 and MB-MaTK12.	
<b>Requirements of Credit Points Awarded</b>	The credit points are awarded when the module examination is passed. The module test consists of a <del>180</del> 240-minute test <del>after the 1<sup>st</sup> semester as well as,</del> a lab report on yarn <del>and fabric manufacturing technology,</del> <del>and a lab report on fabric manufacturing technology.</del>	
<b>Credit Points and Grades</b>	12 credit points can be awarded for the module. The module grade is 2/3 from the grade of the written test, <del>as well as 1/3</del> from the grade of the lab report for yarn <del>and fabric manufacturing technology,</del> <del>and 2/9 from the grade of the lab report for fabric manufacturing technology.</del>	

<b>Module Frequency</b>	The module is offered each academic year, starting in the winter semester.
<b>Working Hours</b>	There are 360 hours of work required.
<b>Module Duration</b>	The module spans 2 semesters.

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK9	Processes and Machines of Ready-Made Clothing Technology	Prof. Rödel
<b>Content and Qualification Objectives</b>	<p>In this module, students learn about about the production of ready for use textile products such as clothing, home textiles, technical textiles made from textile semifinished products (fabric structures and threads of all technologies) and non-textile elements.</p> <p>Methods and machines are presented that allow for production that meets the performance and quality requirements with economic efficiency for the process levels product development, product preparation, cutting, connecting, finishing and packaging. The basic are imparted in order to recognize the connection between methods and machines that result from product requirements and material properties. Processes running in other elements of the textile chain are taken into consideration regarding to their influence on the textile finishing processes, so an integrative understanding is reached. The knowledge acquired is enhanced by practical activities using ready-made clothing machines and CAD facilities and competences in their operation and objective-oriented usage are acquired. Through this module the students improve their skills in the field of ready-made clothing technology, including tailoring of technical textiles as well as applications in e.g. mechanical engineering, vehicle design, civil engineering and medicine. The students are able to break into innovative fields of research and to apply their knowledge and competences subject-specifically and interdisciplinarily.</p>	
<b>Forms of Teaching and Studying</b>	The module consists of a one-semester lecture of 2 SWS, a one-semester practical training of 1 SWS and self-study.	
<b>Requirements of Participation</b>	Well-founded mathematical, physical, and chemical basic knowledge, and basic skills in working with WINDOWS OS computers, at Bachelor degree level.	
<b>Application</b>	The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for specialization modules MB-MaTK10, MB-MaTK11 and MB-MaTK12.	
<b>Requirements of Credit Points Awarded</b>	The credit points are awarded when the module examination is passed. The module examination consists of <del>a written test of 120 minutes and</del> an oral examination of 30 minutes concerning the practical training.	
<b>Credit Points and Grades</b>	5 credit points can be awarded for the module. The module grade is <del>3/4 from the written test and 1/4 from</del> the grade of the oral examination.	

<b>Module Frequency</b>	The module is offered each academic year, starting in the winter semester.
<b>Working Hours</b>	There are 150 hours of work required.
<b>Module Duration</b>	The module spans 2 semesters.

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK10	Specialization Module – Development of Textile Products and Processes	Prof. Cherif
<b>Content and Qualification Objectives</b>	<p>In this module, students learn research and priority oriented information from the fields of textile technology and/or ready-made clothing technology. Moreover, the students become acquainted with the production of technical textiles, the methods and machines of fleece material technology, dimensioning and design of textile machines, the fields of textile finishing and further topics relevant to current research. In the specialization of textile technology, knowledge is broadened in the field of connection technology of woven, warp-knitted and weft-knitted fabrics, but also for constructive, drive and control realization of fabric production machines as well as for textile testing technologies. In the specialization of ready-made clothing technology, the students learn cut design by CAD technology, the design of special ready-made clothing processes, and the methodology of processing and ergonomic tests. Especially tailoring of technical textiles, ironing and fixing processes and processing tests of fabrics, threads and sewing machines are focuses of interest. The students acquire the ability and the competences of machine and process testing as well as of textile product development, especially for technical applications. Consequently they are able to work in innovative fields of research and subject-related industries as well as in research institutions, in the field of research-related teaching, and in technical executive positions.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of lectures, discussions and practical trainings of 10 SWS as well as self-study. The stated number of lectures and courses is to be selected from the program's MB-MaTK10 catalogue, which is provided at the start of the semester, including individual additional test or examination to be performed.</p>	
<b>Requirements of Participation</b>	<p>The competencies gained in modules MB-MaTK1, MB-MaTK2, MB-MaTK3, MB-MaTK6, MB-MaTK7, MB-MaTK8 and MB-MaTK9 are required. Further requirements include basic knowledge of Machine Elements/ design and Mechanisms.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology. It is required for module MB-MaTK12.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of an assignment of 30 hours as well as of tests required according to the catalogue MB-MaTK10.</p>	

<b>Credit Points and Grades</b>	14 credits can be awarded for the module. The module grade is 3/4 from the grade of the written test and 1/4 from the grade of the assignment.
<b>Module Frequency</b>	The module is offered in the winter semester.
<b>Working Hours</b>	There are 420 hours of work required.
<b>Module Duration</b>	The module spans 1 semester.



<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK11	Specialization Module – Organisation of Production and Process Control in the Textile and Clothing Industry	Prof. Rödel
<b>Content and Qualification Objectives</b>	<p>Through this module, in particular, the skills and abilities of students are developed in the areas of production management and process control in the textile, clothing and textile finishing industries and related industries. The module allows the students to focus for example in the field of textile technology, Clothing technology or in the field of textile finishing. This focus can be aligned for several areas of applications, such as technical textiles, medical textiles, building textiles, textiles for the automotive, aerospace, textile for lightweight applications etc. The emphasis is usually included in the research-oriented Master's thesis. The module prepares students for positions of responsibility in the field of textile finishing, textile and ready-made clothing technology, textile recycling and the related industries. They are able to understand the complex research tasks in their subject, to make scientifically justified decisions and to carry them out in solutions.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of lectures, discussions and practical trainings of 9 SWS as well as self-study. The stated number of lectures and courses is to be selected from the program's MB-MaTK11 catalogue, which is provided at the start of the semester, including individual additional test or examination to be performed. In the second module semesters (summer semester), the course is held in a block format over the first six weeks of the semester.</p>	
<b>Requirements of Participation</b>	<p>The competencies gained in modules MB-MaTK1, MB-MaTK2, MB-MaTK3, MB-MaTK6, MB-MaTK7, MB-MaTK8 and MB-MaTK9 are required. Further requirements include basic knowledge of Machine Elements/ design and Mechanisms.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master studies course Textile and Ready-Made Clothing Technology.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module examination consists of a written test of 240 minutes and an assignment of 25 hours. The written test includes questions from the subjects chosen by the individual student, weighted according to their SWS-proportions.</p>	
<b>Credit Points and Grades</b>	<p>12 credit points can be awarded for the module. The module grade is 3/4 from the written test and 1/4 from the grade of the assignment.</p>	

<b>Module Frequency</b>	The module is offered each academic year, starting in winter semester.
<b>Working Hours</b>	There are 360 hours of work required.
<b>Module Duration</b>	The module spans 2 semesters.

<b>Module Number</b>	<b>Module Title</b>	<b>Responsible Lecturer</b>
MB-MaTK12	Scientific Methods and Experts' Seminar	Prof. Cherif
<b>Content and Qualification Objectives</b>	<p>In this module, students' competence with instrumental, systematic, and communication scientific methods are improved, and they achieve expert knowledge. The students are familiarized with scientific-methodic approaches to research procedure and work, and through practical activities, they acquire the appropriate knowledge and competences. Furthermore, in the lectures the students are introduced to the latest research results of the Institute of Textile Machinery and High Performance Material Technology at the TU Dresden, as well as research from national and international partner institutes. Additionally, relevant topics are dealt with by representatives of the industry. In this module the students approach research tasks using scientific methods, and lead how to synthesize solutions, They learn how to use the available scientific potential of the institute to serve their objectives, as well as the potential of other research institutions, the patent office etc. and experts' knowledge in all its forms. They are able to logically and intelligibly represent the results of their research work so that it meets the highest scientific standards.</p>	
<b>Forms of Teaching and Studying</b>	<p>The module consists of a one-semester lecture of 2 SWS, a one-semester discussion section of 1 SWS and self-study. This module is held in a block format over the first six weeks of the semester.</p>	
<b>Requirements of Participation</b>	<p>The competencies gained in modules MB-MaTK1, MB-MaTK2, and MB-MaTK3, MB-MaTK6, MB-MaTK7, MB-MaTK8, and MB-MaTK9, and MB-MaTK10 are required, as are A-Level-equivalent English language skills. The current research results published in the news of the Institute of Textile Machinery and High Performance Material Technology support student preparation for this module. All existing research reports in innovative fields of research at the institute are freely available for preparation. Their usage is recommended. The literature can be found in the reference library of the institute, located at Hohe Straße 6.</p>	
<b>Application</b>	<p>The module is a compulsory module of the non-consecutive Master's program Textile and Ready-Made Clothing Technology.</p>	
<b>Requirements of Credit Points Awarded</b>	<p>The credit points are awarded when the module examination is passed. The module test consists of a presentation and written report (20h extent).</p>	
<b>Credit Points and Grades</b>	<p>5 credit points can be awarded for the module. The grade of the report and presentation equals the module grade.</p>	

<b>Module Frequency</b>	The module is offered in the summer semester of each academic year.
<b>Working Hours</b>	There are 150 hours of work required.
<b>Module Duration</b>	The module spans 1 semester.