



FACHBEREICH RECHTSWISSENSCHAFTEN

MODULBESCHREIBUNGEN
FÜR DEN KONSEKUTIVEN BERUFSBEGLEITENDEN
MASTERSTUDIENGANG
„EUROPEAN TECHNOLOGY LAW“

beschlossen in der
302. Sitzung des Fachbereichsrats des Fachbereichs Rechtswissenschaften 14.05.2025
befürwortet in der 188. Sitzung der zentralen Kommission für Studium und Lehre und Studienqualitätsmittel
(ZSK) am 13.08.2025
genehmigt in der 428. Sitzung des Präsidiums am 04.09.2025
AMBl. der Universität Osnabrück Nr. 06/2025 vom 25.09.2025, S. 885

Identifier	Module title	
Jura-METL-01	Introduction and Approximation Phase (Module 1)	
Module SWS (contact hours per week during semester) 6 SWS	Module duration 1 Semester	Authorised module representative Dr. Matt LeMieux/Prof. Dr. Sören Segger-Piening
Credit Points 12 CP	Module frequency Each Winter Semester	Committee responsible for the module Examination Board LLM European Technology Law
<p>Learning objectives</p> <p>Students acquire a general understanding of legal methodology and the technological framework in order to get a good working knowledge on a methodological level required for subsequent modules, in particular modules 4-6 as well as the master's thesis.</p> <p>This ensures that the students' basic skills are brought up to the required level. The background to this is the reality that large amounts of easily retrievable digital information (big data) are the foundation of innovation, e.g. in the area of AI and Augmented & Virtual Reality. The legislator is well aware that big data both has the potential to foster innovation and economic growth, but also poses significant legal, ethical and societal risks. In order to find a balance which respects privacy and ethical aspects without stifling innovation the EU has developed a nuanced regime for different types of data, which does not only frame the legal assessment but correspondingly also frames the development of technical tools.</p> <p>Accordingly, lawyers need a thorough understanding of the technical foundation of data driven innovation. Technicians developing and marketing technical products and service must be familiar with the legal requirements.</p> <ul style="list-style-type: none"> • Since the students have different backgrounds, the main purpose of this module is to align their previous knowledge and laying the foundation for intradisciplinary discussion. • The students with a predominantly legal background ('lawyers') are to acquire basic knowledge in the field of computer science and the students with previous knowledge in the field of IT ('IT scientists') are to acquire basic legal knowledge. Therefore, the students, separated into groups, will be provided with basic knowledge in the other subject. 		
<p>Content</p> <ul style="list-style-type: none"> • Students in this module will follow three of the six components (i.e. 6 SWS = 12 CP). In this module, they are divided into two groups, namely, on the one hand, 'lawyers' (participants with a predominantly legal background) and, on the other hand, 'IT scientists' (participants with a predominantly technical background). • The content is different for each group. • The 'lawyers' will be introduced to the basics of the following disciplines: <ul style="list-style-type: none"> - 1a) Data Science: Foundations of retrieving value from data, processing of big data and data mining - 2a) Cognitive Science: Applying statistical methods to understand how AI mimics the human brain - 3a) Coding, including basics applications such as programming in python in jupyter books. • The 'IT scientists' will be introduced to the basics of the following disciplines: <ul style="list-style-type: none"> - 1b) German Law: Basic understanding of the regulatory approach of the relevant fields (contract, tort, data protection, data law, IP and competition) - 2b) Law & Regulation: Understanding the types of legal sources, where to find them and how they interact - 3b) Law in Practice: Interpretation & application of statutes based on standard examples and current landmark cases in the area of data economy 		

Identifier		Module title			
Jura-METL-01		Introduction and Approximation Phase (Module 1)			
Module components including CP information	SWS	CP	Lecturer	coursework credit(s)	graded coursework
1a Component: Course					
Introduction to Data Science (for Lawyers)	2 SWS	4 CP	Prof. Dr. Römer, FB 6	Attendance and active participation (solving training cases)	--
	Course description: This course offers an introduction to mathematical foundations of Data Science. After a brief introduction to "data", it covers fundamental mathematical concepts (e.g. calculus, linear algebra) and selected topics related to data analysis (e.g. regression, clustering data, dimensionality reduction). The main objective is to provide concepts of Data Science in an example-oriented way and to create a sound basis for further study of the discipline.				
2a Component: Course					
Introduction to Logic and Critical Thinking (for Lawyers)	2 SWS	4 CP	Dr. Gregor Hörzer, FB 8	Attendance and active participation (solving training cases)	--
	Course description: This is an introductory course on the basics of argumentation theory and classical formal logic, including propositional and predicate logic. The course introduces to the central notions of validity, semantic consequence, syntactic derivability, completeness and correctness, and provides semantic (semantic trees) and syntactic (Fitch-style calculus for natural deduction) frameworks for checking for the validity of arguments.				
3a Component: Course					
Introduction to Coding (for Lawyers)	2 SWS	4 CP	Prof. Dr. Michael Brinkmeier; FB 6	Attendance and active participation (solving training cases)	--
	Course description: Introduction to imperative programming using a text-based programming language (Python), including basics of object orientation, linear data structures (array, list, stack, queue), search strategies and sorting methods, trees (search trees and balanced trees), graphs and algorithms for determining minimum spanning trees and shortest paths. In addition, basics of network communication (layer model, protocols) are covered.				
1b Component: Course					
Introduction to German Law (for IT scientists)	2 SWS	4 CP	Dr. Marko Andjic, FB 10	Attendance and active participation (solving training cases)	--
	Course description: Welcome to German Law! This course offers an overview of the fundamental principles and structures of the German legal system. Designed for students with a technical background and foreign law students, the course explores key areas including constitutional law, criminal law, and – this will be the focus – civil law. In the course, the formation of contracts and contractual and non-contractual liability will be discussed. For the master students, a general understanding of the German legal system is essential for the second semester. By the end of the course, students will be equipped with a foundational understanding of how law functions in Germany and how legal thinking is structured within the German legal tradition.				

Identifier	Module title				
Jura-METL-01	Introduction and Approximation Phase (Module 1)				
2b Component: Course					
Introduction to Law & Regulation (for IT scientists)	2 SWS	4 CP	Dr. Maren Wöbbeking, FB 10	Attendance and active participation (solving training cases)	..
	<p>Course description:</p> <p>The lecture offers a concise introduction to legal thinking and practice, starting with an overview of legal sources, normative hierarchies and explaining how multi-level governance in the EU works. Building on this foundation, it explores legal methodology and practical techniques for pinpointing the applicable law and carrying out targeted research. In particular students will learn how to search for EU legislation and its implementation in the Member States. We also review legislative procedures and enforcement mechanisms, before wrapping up in a hands-on workshop that invites participants to tackle sample legal problems</p>				
3b Component: Course					
Law in Practice: Interpretation & application (for IT scientists)	2 SWS	4 CP	Prof. Dr. Hans Schulte-Nölke, FB 10	Attendance and active participation (solving training cases)	..
	<p>Course description: Far from boring. Rules that hold society together and keep the economy running</p> <p>This course looks at real-life cases from everyday private and professional life in the digital world. We ask ourselves: Was a contract formed? Can I withdraw? What are my obligations? What happens if I breach them? What am I allowed to do online, in advertising, or when I want to provide digital services? The course is primarily aimed at computer scientists, teaching them - through hands-on experience - relevant legal rules from both national and European law, so they can identify and apply them. Participants will learn how to identify relevant legislation and will be familiar with current landmark cases in the field of data economy</p>				
Examination requirements					
--					
Calculation of module grade, where applicable					
The Module is ungraded.					
Guidelines for passing the module, where applicable					
All coursework credits must have been obtained.					
Guidelines for retaking examinations to improve grades, where applicable					
--					
Module Applicability					
LL.M. European Technology Law					
The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.					
Prerequisites for Participation in this Module					
--					

Identifier Jura-METL-02		Module title Introduction Law and Technology (Module 2)				
Module SWS (contact hours per week during semester) 4 SWS	Module duration 1 Semester		Authorised module representative Matt Le Mieux /Prof. Dr. Mary-Rose McGuire			
Credit Points 6 CP	Module frequency Each Winter Semester		Committee responsible for the module Examination Board LLM European Technology Law			
Learning objectives						
<p>The European Union (EU) is an international organization of a supranational character and, as such, part of a multi-level system of government. Traditionally, EU Law has concentrated on the creation and functioning of what is called the Internal Market. The addition of new policies, e.g., in the fields of AI, data protection, machine generated data, product liability and IP has increased its impact on technological development and innovation. EU Law not only interacts with the domestic law of each of the Union's Member States but emerges as a self-standing regulatory body for the evolving data economy.</p> <p>The program covers different technologies, such as AI and Augmented & Virtual Reality, and different legal domains, such as intellectual property rights, privacy and competition. The lecture on law and technology intends to broaden the perspective by combining insights from other scientific domains such as economy, ethics and technology with their respective legal background.</p> <p>The module presents the necessary background for both a legal analysis of technical innovation and the basis for understanding the European multi-level system.</p> <ul style="list-style-type: none"> • Students will acquire the knowledge of European rule making and EU law, which they need in order to understand European technology law thoroughly, which will hence prepare them to follow the further development of the evolving digital market • Students will be made familiar with the different types of EU legislation (regulations, directives), the competence they are based on and the propositions for transformation and/or application in the Member States • An important learning objective is to understand how EU strategies are developed and the different necessary steps required to turn into current legislation, which is a necessary requirement to develop future prove technology and assure compliance. 						
Content						
Students in this module will follow 2 components (i.e. 4 SWS = 6 CP).						
<ul style="list-style-type: none"> • Law & Technology <ul style="list-style-type: none"> - Starting with data as an economic resource the course covers current and emerging technologies, such as AI, AR & VR, Big Data, Cloud Computing and combines technological insights and societal challenges with the laws related to this. • Basics of EU Law <ul style="list-style-type: none"> - Foundation of the European Union: nature, structure and development; Sources of European Union Law; The organizational structure: EU institutions, their creation and functioning; Types of legislation and other means of action; Implementation of EU Law in the Member States' domestic legal orders 						
Module components including CP information		SWS	CP	Lecturer	coursework credit(s)	graded coursework
1st Component: Course						
Law & Technology		2 SWS	3 CP	Prof. Dr. Mary-Rose McGuire, FB 10	Attendance	--
		<p>Course description: Take a look into the Gartner Hype Cycle: How will the top technologies play out in European practice?</p> <p>The lecture will take a deep dive at six technologies (AI, big data, blockchain, digital twins, XR, IoT) which according to the well-known Gartner Hype Cycle are regarded as the most mature and expected to have the largest potential for economic growth. A concise overview on the specific features technologies will be mirrored by an overview of the policies pursued by (European) legislators in regulating current technologies.</p>				

Identifier Jura-METL-02	Module title Introduction Law and Technology (Module 2)			
	Starting with how the legislator uses incentives (e.g. patents) and prohibitions (e.g. biometrical systems) as a first control mechanism for fostering innovation, we will look at specific problems each of the technologies pose and examine the objectives of the individual regulatory fields (data protection, contracts, liability, IP, competition, product safety). Of course, societal risks of modern technology, in particular new challenges for privacy, ethics and IT security will be addressed, identifying dos & don'ts			
2nd Component: Course				
	2 SWS	3 CP		Attendance --
Basics of EU Law	<p>Course description:</p> <p>The course addresses the basic legal structures of the European Union, its main organs and their competences, the rights and freedoms guaranteed in the internal market, and the rules and procedures of effective legal protection provided by the EU judicial system.</p> <p>Further the EU Charter of Fundamental Rights and the European Convention on Human Rights are covered as they are increasingly recognized as a fundamental right, essential for protecting individual autonomy and dignity in the digital age</p>			
Examination requirements Combined final Exam (60 min.); Value: 12.5%				
Calculation of module grade, where applicable Grade of the Exam				
Guidelines for passing the module, where applicable All coursework credits must have been obtained, the course-related examination must have been passed with a grade of at least 4 points.				
Guidelines for retaking examinations to improve grades, where applicable ---				
Module Applicability LL.M. European Technology Law The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.				
Prerequisites for Participation in this Module --				

Identifier Jura-METL-03	Module title Contract Design and Drafting (Module 3)	
Module SWS (contact hours per week during semester) 2 SWS	Module duration 1 Semester	Authorised module representative Dr. Matt Le Mieux /Prof. Dr. Hans Schulte-Nölke
Credit Points 6 CP	Module frequency Each Winter Semester	Committee responsible for the module Examination Board LLM European Technology Law
<p>Learning objectives</p> <p>The focus of the module is on international business transactions and intends to provide the students with the necessary skills to negotiate and implement international business contracts on technology. The module also presents the necessary background for contract law and the basis for drafting contracts on technology.</p> <ul style="list-style-type: none"> • Students acquire a good understanding of the basics of contract drafting. • Students will become familiar with the most relevant methods of contract drafting, their advantages, and disadvantages. Furthermore, they will become familiar with relevant problems of contract drafting and their solutions where contracts seek to stipulate 'compliance by design' or the monitoring of products or technologies by digital twins. 		
<p>Content</p> <p>Students in this module will follow 2 components (i.e. 2 SWS = 6 CP).</p> <ul style="list-style-type: none"> ○ Contract Law: Basic rules and drafting techniques ○ Colloquium: Compliance by Design/Digital Twins - The module will scrutinize processes of contract drafting and highlight the institutional framework, national and international as well as legal and non-legal, of international business transactions. Students will learn to analyse pitfalls from an interdisciplinary perspective and create sustainable solutions for technology contracts. - In particular, the following issues of contract law will be dealt with: <ul style="list-style-type: none"> ○ Why we need contract law: Minimizing transaction costs ○ The effect of legal remedies on contract performance: The concept of efficient breach of contract - The part on compliance by design deals with the adherence to rules (e.g. laws, contractual obligations, technical standards, and internal regulations or guidelines) in developing IT technologies. The module explains the most important terms using practical cases, describes the legal framework and classifies compliance in the overall context of data driven technologies. - The content, scope and limits of duties in IT and technology development are discussed, as are fundamental strategies for avoiding and limiting liability. The module also takes a look at foreign legal systems, particularly in the U.S. - The part on 'Digital Twins' aims to provide an overview of practical use cases of digital twins and the legal questions involved. It will provide insights into: <ul style="list-style-type: none"> ○ The diverse aspects and application areas of digital twins from production to robotics, machine tools, logistics and (control) software development. ○ Legal challenges associated with the development of digital twins. ○ The potentials of using digital twins from risk analysis prior to plant commissioning to operational collaboration with humans using augmented reality or active usage with an executable digital twin. 		

Identifier		Module title			
Jura-METL-03		Contract Design and Drafting (Module 3)			
Module components including CP information	SWS	CP	Lecturer	coursework credit(s)	graded coursework
1st Component: Course					
Contract Law: Basic rules and drafting techniques	1 SWS	3 CP	Dr. Marko Andjic, FB 10 Matthias Schrader, RA Dr. Christoph Bielik, RA	Attendance and Project Report	--
	<p>Course description:</p> <p>There is no glory in contract drafting? Together we will refute this thesis.</p> <p>Digitalization is impossible without contracts. Therefore, understanding contract law is essential. However, in most areas, law is still designed for an analogue world. Accordingly, the parties – as far as possible – must use their freedom of contract to regulate legal relationships according to their needs. Focused on technology-related contracts, we will look at the Do's and Don'ts of contract drafting, based on the life cycle of a contract.</p> <p>As it would be downright absurd not to use technology for this task the course builds on the experience of two lawyers. One, that develops legal tech tools and will share his first-hand experience on how they can assist and what remains to be done by humans. The second will focus on how dispute resolution tools and clauses can reduce legal risks.</p>				
2nd Component: Colloquium					
Compliance by Design/Digital Twins	1 SWS	3 CP	Prof. Dr. Hans Schulte-Nölke, FB 10 Patentanwalt Dr. Denis Träger	Attendance and Project Report	--
	<p>Course description: No more spoiling the fun</p> <p>Lawyers are often seen as spoilsports by developers, constantly pointing out what the GDPR, the AI Regulation, etc., prohibit. We will shift the perspective, using numerous examples to show that the law indeed serves to create freedoms – including for innovations and creative business ideas. The colloquium delves deeper into the legal issues related to core digital technologies.</p> <p>The colloquium accompanies the Law and Technology lecture and is partially interconnected. Students are asked to come up with an idea for a digital application, which will be refined throughout the course – and presented to an auditorium of practitioners at the end of the term.</p> <p>'Compliance by design' refers to the adherence to rules (e.g. laws, contractual obligations, technical standards, and internal regulations or guidelines) in developing IT technologies. The colloquium touches the most important terms using the student proposals, describes the legal framework and classifies compliance in the overall context of data driven technologies. Content, scope and limits of duties in IT and technology development are discussed, as are fundamental strategies for avoiding and limiting liability. 'Digital Twins' is a core example and starting point. It aims to provide an overview of practical use cases of digital twins and the legal questions involved. It will provide insights into the diverse aspects and application areas and the legal challenges associated with the development of digital twins. Examples of the enormous potential for using digital twins are addressed, ranging from risk analysis prior to commissioning a plant to operational collaboration with people using augmented reality or the active use of an executable digital twin.</p>				
Examination requirements					
Project Report (graded); Value: 12.5% of the total grade					
Calculation of module grade, where applicable					
Grade of the Project Report					

Identifier	Module title
Jura-METL-03	Contract Design and Drafting (Module 3)
Guidelines for passing the module, where applicable All coursework credits must have been obtained, the Project Report must have been passed with a grade of at least 4 points.	
Guidelines for retaking examinations to improve grades, where applicable --	
Module Applicability LL.M. European Technology Law The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.	
Prerequisites for Participation in this Module --	

Identifier Jura-METL-04		Module title Technology Law (Module 4)				
Module SWS (contact hours per week during semester) 4 SWS	Module duration 1 Semester		Authorised module representative Dr. Matt Le Mieux / Prof. Dr. Mary-Rose McGuire			
Credit Points 6 CP	Module frequency Each Summer Semester		Committee responsible for the module Examination Board LLM European Technology Law			
Learning objectives						
<p>The purpose of this module is to introduce the students to the framework for AI and IP:</p> <ul style="list-style-type: none"> • Regulatory awareness: Introduce students to relevant regulatory frameworks governing AI highlighting the challenges and nuances of EU law (AI Act, Product Liability) and national law (contracts and torts) around rapidly advancing technologies. • Technical & legal understanding: To provide students with insights into the technical nuances of AI and its liability risk implications. • Protection of innovation: To provide students with the basic skills to determine which components of AI-systems and which achievements made by their use (such as digital twins) meet the requirements for IP-protection (copyright, data base, trade secrets, patents); including how an IP-strategy can be developed. • Technology transfer: and whether the use of AI-tools requires permission by the person providing the AI tools. • Analytical skills: Cultivate the ability to evaluate the complexities that AI driven products and services introduce to privacy, data protection, contractual freedom, liability as well as technical and legal measures to mitigate risks. • International perspective: Foster an understanding and evaluation of different approaches adopted to regulate AI and IP. 						
Content						
<p>As artificial intelligence continues to reshape global paradigms, the principal aim of the course is to provide students with an overview of the legal impact of AI technology and the regulatory landscape. Through the in-depth exploration of the intricate interplay between artificial intelligence and legal regulation, this course seeks to illuminate the multifaceted opportunities and legal challenges companies using AI face at the onset of implementing this innovation in practice. Autonomous driving and drones serve as examples to identify the technical aspects of artificial intelligence technology and the different types of harm which can occur when organisations deploy this technology.</p> <p>The economic interest to invest in innovation is framed by IP protection. The possibility to protect achievements by IP allows the focus on research and development on the one hand and production/services on the other, which is a basic requirement for cooperation (technology transfer, licenses). Emerging fields of technology and their dense coverage by IP present competitors and users with chances of contractual exploitation and liability risks alike. The course provides an overview on the different IP protection schemes (patents, design, copyright and trademarks), their international and European framework and focusses on the skills needed to develop an IP strategy from a business perspective.</p>						
Module components including CP information		SWS	CP	Lecturer	coursework credit(s)	graded coursework
1st Component: Course						
IP in the Innovation Cycle		2 SWS	3 CP	Prof. Dr. Mary-Rose McGuire, FB 10	Attendance	
		Course description: Welcome to IP law – the Innovation Booster				
		Intellectual property is an indispensable tool to foster innovation and assure protection of achievements. It is an important factor for remaining competitive in the global knowledge-based economy. The shift from corporal goods to intellectual property however has many implications for today's businesses: they have to play the system to gain from it, have to develop new business models, acquire rights by contract and closely watch the market and competitors to avoid liability.				

Identifier Jura-METL-04	Module title Technology Law (Module 4)				
	<p>Accordingly, the lecture is designed to provide an overview on the concept of intellectual property and the practical implications for businesses. Students will familiarize themselves with the multi-level system of IP-protection on a worldwide (TRIPS), European (EU-legislation) and national level. Participants from different jurisdictions will be encouraged to compare its transformation at the national level.</p> <p>The course will cover the legal concepts of patent protection and utility models, the rules on the protection of trademarks and designations of origin, the basics of copyright law and of design protection. Of course, the (dis)advantages of unitary community IP-rights as compared to national IPRs will be discussed in the light of relevant case law.</p>				
2nd Component: Course					
	2 SWS	3 CP	Prof. Dr. Hans Schulte-Nölke, FB 10	Attendance	--
Artificial Intelligence & Liability	<p>Course description:</p> <p>This course deals with the question of who is responsible for damages caused by computer algorithms – especially in the case of artificial intelligence (AI). We will jointly examine the problems that arise when algorithms are used in areas such as self-driving cars, smart home devices, care robots, healthcare applications, human capital decisions, industrial robots, and much more.</p> <p>The course provides an overview of current laws in the EU (and also looks occasionally at German law). We will particularly focus on the new rules that have emerged in the European Union and change both the rules <i>what</i> is permitted and <i>how</i> something is legally enforced.</p> <p>In addition, we will discuss the ethical questions that arise when using AI. We will also investigate why good data is so important – it is the foundation for algorithms to function correctly. And we will cover how the EU legislator seeks to balance the economic gains and societal risks.</p> <p>As AI becomes increasingly important and the laws are constantly changing, these topics are very current and exciting. Join us and discuss these important issues at the intersection of law, technology, and ethics.</p>				
Examination requirements					
Combined final exam (60 min.); Value: 12.5% of the total grade					
Calculation of module grade, where applicable					
Grade of the Exam					
Guidelines for passing the module, where applicable					
All coursework credits must have been obtained, the course-related examination must have been passed with a grade of at least 4 points.					
Guidelines for retaking examinations to improve grades, where applicable					
--					
Module Applicability					
LL.M. European Technology Law The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.					
Prerequisites for Participation in this Module					
Law and Technology (Module 2)					

Identifier Jura-METL-05		Module title Data Law (Module 5)				
Module SWS (contact hours per week during semester) 4 SWS	Module duration 1 Semester		Authorised module representative Dr. Matt Le Mieux / Prof. Dr. Sören Segger-Piening			
Credit Points 6 CP	Module frequency Each Summer Semester		Committee responsible for the module Examination Board LLM European Technology Law			
Learning objectives						
<p>Based on the general understanding of the legal framework and technological tools gained in the first semester, students will dive into the current EU regulatory framework of the digital market. An overview on EU data economy law and the underlying policies is combined with courses on specific legislative acts of utmost importance for the European data economy (General Data Protection Regulation, Data Act, Data Governance Act). Students are familiarized with open data and privacy, the importance of data governance. They will explore the impact of current and upcoming legislation on the data ecosystem, the value and the exchange of data.</p> <ul style="list-style-type: none"> • The purpose of this module is to introduce the students to the regulatory framework of the data economy, its underlying policies and the specific European approach differing from policies in the U.S. and China. • Students learn to identify the core concepts of the different acts governing data law, their scope of application, which actors accrue rights and obligations and which public bodies are entrusted with enforcement. • An important learning objection is to be able to draft a consent, permission or contract allowing or establishing legitimate interest to use personal and/or machine generated data and to meet respective information requirements. • Students will acquire the skills to determine which requirements a specific product or service must meet in order to avoid obligations to cease and desist or even liability for data breach. 						
Content						
Students in this will attend 4 closely aligned courses and must pass a 90 minutes exam covering the entire module						
<ul style="list-style-type: none"> • Introduction to Data Law: Data Law is a rapidly evolving subject to which this course will give a thorough introduction. It includes a brief overview of the different sources of law and their classification and the various facets of the term "data". The primary focus of the lecture is a cross-linked introduction to the two main subject areas of data law: data protection and data market law • Data Protection: Concept of the GDPR controlling how data that could identify an individual may be used by an organisation; protection of data subjects; definition of data processing; categories of data, such as sensitive personal data; anonymized data or pseudonymised data. • Cyber Security: Practice of protecting computer systems, networks, and data from unauthorized access, use, disclosure, disruption, modification, or destruction. It encompasses various technologies, policies, and procedures aimed at mitigating cyber threats and ensuring the confidentiality, integrity, and availability of information <p>Data Governance & AI: Concept of quality control as a means to ensure the quality of automated decision; technical processes that ensure the traceability, quality and protection of data; determining strategies and drafting access rules.</p>						
Module components including CP information		SWS	CP	Lecturer	coursework credit(s)	graded coursework
1st Component: Course						
Introduction to Data Law		1 SWS	2 CP	Prof. Dr. Sören Segger-Piening, FB 10	Attendance	
		Course description: Data Law is a rapidly evolving subject to which this course will give a thorough introduction. It starts with a brief overview of the different sources of law and their classification as national, European or international. Thereafter the various facets of the term "data" and different categories of data as well as the difficulties of differentiating between them are examined as a further foundation.				

Identifier Jura-METL-05	Module title Data Law (Module 5)				
	<p>The primary focus of the lecture is a cross-linked introduction to the two main subject areas of data law:</p> <p>The section on data protection provides an overview of the central legal sources – esp. the GDPR with the inclusion of fundamental rights at both European and national level – and shows the instruments used, in particular consent, fines and tortious damages.</p> <p>The other main subject is the currently rapidly developing data market law. This subfield of data law firstly encompasses the topic of data usage and the data economy, which are legally linked to the recently enacted Data Act. Based on the legislative regulatory objective of artificially creating a market for machine-generated data, the lecture aims for an introduction to the instruments used for this purpose: In particular, there are various statutory access and transfer rights as well as a consensual contractual level, which is itself strictly regulated.</p> <p>A cross-sectional view of the instruments of data law shows the variety of regulatory mechanisms used, such as information obligations, the control of general terms and conditions and issues of contract as well as tort law. If one adds to this the enforcement mechanisms under both civil and public law, it becomes clear that data law as a whole is a cross-section of different areas of law.</p> <p>Finally, the international dimensions of data law will be analysed.</p> <p>Topics covered:</p> <ul style="list-style-type: none"> • Sources of Data Law and Development • Definition and Different Categories of Data • Protection of Personal Data (esp. GDPR) • Data Market Law, esp. usability of Data and Data Economy (esp. Data Act) • Instruments of Data Law • International Data Law 				
2nd Component: Course					
Data Protection Law and Emerging Technologies	1 SWS	2 CP	Prof. Dr. Hannah Ruschemeier, FB 10	Attendance	--
	<p>Course description:</p> <p>Students first gain an overview of data protection law, which covers the significance of data protection law, ethical foundations and the various legal sources of data protection law in the multi-level system, from the Basic Law to the GDPR and international law. Equipped with the basic skills of data protection law, the knowledge acquired is first deepened through a comparative legal analysis, in which students gain basic knowledge of data protection law in the USA and internalize the international dimension of data protection law.</p> <p>This knowledge is then applied to address current challenges in data protection law, with a particular focus on the data protection framework and how to deal with artificial intelligence, big data and blockchain technology. Upon successful completion of the module, students will be able to name the protected interests of data protection law, will be familiar with the basic structures and systematics of data protection law in a multi-level system, and will be able to assess simple data protection law issues in case studies and in practice.</p>				

Identifier	Module title				
Jura-METL-05	Data Law (Module 5)				
3rd Component: Course					
Cyber Security	1 SWS	1 CP	Prof. Dr. Svitlana Mazepa, FB 10 / West Ukrainian Univ. Ternopil	Attendance	
	<p>Course description:</p> <p>Risks such as identity theft, broken authentication, compromised access control, sensitive data exposure, and Distributed Denial of Service (DDoS) attacks can put businesses at risk and undermine trust among participants of shared data spaces.</p> <p>The course will focus on the practice of protecting computer systems, networks, and data from unauthorized access, use, disclosure, disruption, modification, or destruction. It encompasses various technologies, policies, and procedures aimed at mitigating cyber threats and ensuring the confidentiality, integrity, and availability of information.</p> <p>Choke full with practical examples it will show that cyber security is an important task and essential not only to protect business values but also privacy.</p>				
4th Component: Course					
Data Governance & AI	1 SWS	1 CP	Dr. Jasper Siems, RA	Attendance	
	<p>Course description:</p> <p>This course maps the EU's emerging data-economy rules. Data governance and data protection are closely related. Essentially, data governance provides the structure, and data protection implements the security measures within that structure</p> <p>In this course we trace how the AI Act grades risk and imposes duties on AI providers and deployers, how the Data Act orchestrates access, sharing, and contractual balance, and how the Data Governance Act drives trustworthy data spaces.</p> <p>Students examine AI system compliance and address the new requirements for data licenses, as well as practical enforcement questions. By the end, students will be able to assess the legal risks of AI systems, negotiate data contracts, and shape resilient data and AI governance architectures.</p>				
Examination requirements					
Combined final exam (90 min.); Value: 12.5% of the total grade					
Calculation of module grade, where applicable					
Grade of the Exam					
Guidelines for passing the module, where applicable					
All coursework credits must have been obtained, the course-related examination must have been passed with a grade of at least 4 points.					
Guidelines for retaking examinations to improve grades, where applicable					
--					
Module Applicability					
LL.M. European Technology Law					
The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.					
Prerequisites for Participation in this Module					
--					

Identifier Jura-METL-06	Module title Electives / Fields of Technology (Module 6)	
Module SWS (contact hours per week during semester) 4 SWS	Module duration 1 Semester	Authorised module representative Dr. Matt LeMieux/Prof. Dr. Hans Schulte-Nölke
Credit Points 8 CP	Module frequency Each Summer Semester	Committee responsible for the module Examination Board LLM European Technology Law
<p>Learning objectives</p> <p>As the master program seeks to enable the students to understand the interplay of law and technology and learn to avoid legal obstacles by either re-designing the technical features (to avoid the application of an unappealing rule) or to omit the legal risks by contractual design, it is of essence that they apply and test their skills in a protected environment. The elective courses provide for this exercise by allowing the students to choose a field of technology they have a particular interest in, enlarge their knowledge by courses adding information from other research areas which appear particularly valuable for this particular technology area and test their skills in workshops with practitioners.</p>		
<p>Content</p> <p>Students in this module should elect one technology field and attend three courses tailored to these specific areas (i.e. 4 SWS = 8 CP). In case a student has already attended an equivalent course in his prior program this course can be replaced by the lecture series on law & technology.</p> <p>The specific content of each lecture and workshop will be determined as soon as the students have enrolled and chosen their field of technology. Depending on whether the participants are lawyers, technicians or both the course will be adopted to fit their needs.</p> <p><u>Elective 1: Platforms</u> – digital Infrastructures for the exchange of products and services</p> <ul style="list-style-type: none"> • Platform Regulation • Workshop Platforms as business model <p><u>Elective 2: Smart Factory</u> – production based on Intelligent assistant systems and robotics</p> <ul style="list-style-type: none"> • IIoT & Predictive Maintenance • European Patent Law or European Copyright Law • Workshop Robotics & Automatisation <p><u>Elective 3: Logistics</u> – AR & VR in planing, consignment and transport</p> <ul style="list-style-type: none"> • Augmented & Virtual Reality • Supply Chain & Climate • Workshop Supply Chain Management <p><u>Elective 4: Smart Cities</u> – digital transformation and optimization of use of ressources</p> <ul style="list-style-type: none"> • Ethics of AI or Fundamental Rights • Smart Cities • Workshop communal companies <p><u>Elective 5: Smart Farming</u> – datadriven optimization of input and output in agricultural production</p> <ul style="list-style-type: none"> • Autonomous Systems • European Patent Law or European Copyright Law • Workshop Smart Farming 		

Identifier	Module title				
Jura-METL-06	Electives / Fields of Technology (Module 6)				
<i>Lecture Series: European Law & Technology</i>					
As law & technology in the digital arena is quickly developing the lecture series gives room to current developments. ChatGPT may serve as an example. The fascination for the technical possibilities is soon followed by the reproach that it violates current law. After legal scholarship quickly settled the issue that the differences between U.S. and European copyright law lie at the heart of the problem, the text and data mining exception under the European Single Digital Market Directive came into focus. At present courts all over Europe are rendering first decisions on whether or not the application of the technology is permissible. Similar issues have arisen with Big Data, AR & VR, Dashcams and others. The lecture series thus does not have a fixed curriculum, but aims at providing insights into the discussion of unsettled issues. Each lecture will be dedicated to a new problem and will be held by colleagues from other European universities to enhance the European and international dimension.					
Module components including CP information	SWS	CP	Lecturer	coursework credit(s)	graded coursework
Elective 1					
Platforms	4 SWS	8 CP	Prof. Dr. Christoph Busch, FB 10	Attendance and active participation (solving training cases)	
Elective 2					
Smart Factory	4 SWS	8 CP	Dr. Thomas Schöler, HaloCline, Hülya Mese-Wichmann, SlashWhy	Attendance and active participation (solving training cases)	
Elective 3					
Logistics	4 SWS	8 CP	Dr. Tim Kannewurf, Schnellecke Logistik	Attendance and active participation (solving training cases)	
Elective 4					
Smart Cities	4 SWS	8 CP	Dr. Claas Beckord, Stadt Osnabrück	Attendance and active participation (solving training cases)	
Elective 5					
Smart Farming	4 SWS	8 CP	Dr. Thilo Steckel, Claas Landmaschinen	Attendance and active participation (solving training cases)	
Lecture Series					
Law & Technology (Optional)	2 SWS	4 CP	Triin Siil, University of Tartu, EST Joanna Rindell, London, GB Prof. Nadja Purtova, University of Utrecht; NL Dr. Elisabeth Steindl, University of Vienna, AT Dr. Peter Slotwinski, University of Posen, PL Dr. Berdin van der Donck, EU Commission, DK Prof. Dr. Tim Kitzmann, DFKI Osnabrück		--
Examination requirements					
--					
Calculation of module grade, where applicable					
The Module is ungraded					

Identifier	Module title
Jura-METL-06	Electives / Fields of Technology (Module 6)
Guidelines for passing the module, where applicable	
All coursework credits must have been obtained. And a project folder is to be created.	
Guidelines for retaking examinations to improve grades, where applicable	
--	
Module Applicability	
LL.M. European Technology Law	
The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.	
Prerequisites for Participation in this Module	
--	

Identifier Jura-METL-07		Module title Master 's Thesis				
Module SWS (contact hours per week during semester)	Module duration 1 Semester		Authorised module representative Prof. Mary-Rose McGuire			
Credit Points 16 CP	Module frequency Winter Semester		Committee responsible for the module Examination Board LL.M. European Technology Law			
Learning objectives						
<p>The objective of the Master thesis is to show that the candidate can solve a practical problem arising in their area of specialization/field of technology and apply the skills and knowledge obtained during the courses. This requires to plan and conduct the research within a limited 'time period, using scientific research methods. It is expected that the student will deal with the relevant, state-of-the-art research. Further the participants shall display that they are willing and able to present and defend their research results within their scientific community. Thereby the candidate demonstrates that he/she is dedicated to solving the research problem, can validate the motivation behind choosing it, and show what distinguishes it from existing research.</p>						
Module components including CP information		SWS	CP	Lecturer	Coursework credit(s)	graded coursework
Workload 480 h			16 CP			
Examination requirements						
--						
Calculation of module grade, where applicable						
Grade of the Master's Thesis						
Guidelines for passing the module, where applicable						
The Master's Thesis must have been passed with a grade of at least 4 points.						
Guidelines for retaking examinations to improve grades, where applicable						
--						
Module Applicability						
LL.M. European Technology Law The Faculty of Law can open up the module for use in other degree programmes at the University of Osnabrück, e.g. by including it in specific agreements with other faculties.						
Prerequisites for Participation in this Module						
--						