

The title of the course/module	Crypto Currencies - Blockchain Ecosystem		
Person responsible for the module	Prof. Dr. Elmar Steurer; With PTGR AG crypto experts: Dr. Grosse-Ruyken / Agust Arnarsson		
Type of course (compulsory subject / compulsory elective subject / elective subject)	Compulsory elective subject	Module abbreviation	CCBE
Module scope	3 ECTS	Attendance time	Intermediate course 1 week of block teaching <b>03 June-07 June 2024:</b> 30 units (UE)
		Online component & self-study	Online lessons Introductory event with 5 units (UE) on <b>Monday 29 April 24</b> at 10:00 German time Final event with examination, presentation and term paper: 10 units (UE) on <b>10 July 24</b> at 10:00 German time Project implementation as self-study, optionally accompanying the block course: 45 units (UE)
		Total workload	90 h
Course language	Englisch	Semester	Summer semester 2024
Year of study	3-8	Requirements	-
Type of event	Project seminar	Teaching and learning methods	Seminar, project, e-learning, workshops
Examination	Documentation and final presentation: 100%	Requirements	-
Maximum number of participants	25	Registration	@HNU
Recommended optional program units			
Content of the course	<p>The elective course "<b>Crypto Currencies - Blockchain Ecosystem</b>" enables students to acquire key competencies in the following areas:</p> <p><b>Fundamentals of Blockchain &amp; Ecosystem:</b> Understanding the basic concepts and the ecosystem surrounding blockchain technology. Monday</p> <p><b>Interoperability &amp; Business Models:</b> Exploring the possibilities of integrating blockchain into existing systems and analyzing the various business models enabled by blockchain. Monday</p> <p><b>Compliance - Legal Regulations:</b> Examining the legal and regulatory aspects associated with blockchain technology, including compliance with regulations. Tuesday</p> <p><b>Forensics &amp; Cybercrime:</b> Analyzing forensic methods and challenges in investigating crime in blockchain networks, along with the prevention of cybercrime. Tuesday</p> <p><b>Decentralized Finance (DeFi), DApps &amp; Smart Contracts:</b> Understanding DeFi platforms, the development, and functionality of decentralized applications and smart contracts. Wednesday</p> <p><b>Cryptocurrencies &amp; Tokenization:</b> A comprehensive examination of cryptocurrencies, their functionality, and the significance of digital asset tokenization. Wednesday</p> <p><b>Web 3.0, Metaverse, NFTs &amp; GameFi:</b> Exploring developments in Web 3.0, the metaverse, NFTs, and financial opportunities focused on gaming. Thursday</p> <p><b>NFTs:</b> In-depth exploration of the concept of Non-Fungible Tokens (NFTs), their applications, and impacts on various industries and creative fields. Friday</p>		

	<p>Physical lecture time: 9:30-1715 including group work, 4 teaching units, 4 units group work</p> <p>Monday welcome dinner</p> <p>Wednesday. Barbecue event</p> <p>The elective course follows these steps:</p> <ol style="list-style-type: none"> <li>1. <b>Competency Goal</b> - gaining a holistic overview of the blockchain ecosystem.</li> <li>2. <b>Observation/Reflection</b> - students observe/reflect on their individual competency acquisition and develop a project topic through group work.</li> <li>3. <b>Dialogue</b> - students engage in discussions with the instructor and among themselves (via e-learning) regarding their learning progress.</li> <li>4. <b>Description/Documentation</b> - students describe/document their specific project and the acquired competencies (brief text) + presentation (format chosen individually).</li> </ol> <p>Additionally, students are guided by the external coaches from PTGR AG: Dr. Pan Theo Grosse-Ruyken (CEO) and Ágúst Berg Arnarsson (COO).</p>		
<b>Learning outcomes of the course / module</b>	<p>The students acquire competencies such as:</p> <ul style="list-style-type: none"> <li>• <b>Fundamentals of Blockchain &amp; Ecosystem:</b> Competency in explaining the basic concepts and functionality of blockchain technology, as well as its surrounding ecosystem.</li> <li>• <b>Interoperability &amp; Business Models:</b> Ability to investigate and assess integration possibilities of blockchain into existing systems. Competence in analyzing various business models enabled by the implementation of blockchain technologies.</li> <li>• <b>Compliance - Legal Regulations:</b> Understanding and knowledge of the legal and regulatory aspects relevant to blockchain technology. Ability to comply with regulations and evaluate their impacts on blockchain-based projects.</li> <li>• <b>Forensics &amp; Cybercrime:</b> Competence in preventing cybercrime associated with blockchain technology.</li> <li>• <b>Decentralized Finance (DeFi), DApps &amp; Smart Contracts:</b> Understanding the development and functionality of DeFi platforms, decentralized applications, and smart contracts.</li> <li>• <b>Cryptocurrencies &amp; Tokenization:</b> Competence in the comprehensive examination of cryptocurrencies, their functionality, and the significance of digital asset tokenization.</li> <li>• <b>Web 3.0, Metaverse, NFTs &amp; GameFi:</b> Ability to research and evaluate developments in Web 3.0, the metaverse, NFTs, and financial opportunities focused on gaming.</li> <li>• <b>NFTs:</b> Competence in the in-depth examination of the concept of Non-Fungible Tokens (NFTs), their applications, and potential impacts on various industries and creative fields.</li> </ul>		
<b>Recommended specialist literature</b>	Will be announced in the respective course.		
<b>Internship</b>	-		
<b>Special features</b>	<p>Minimum number of participants: 5 HNU students</p> <p>The WPF is preferably offered to the international partner of HNU.</p> <p>.</p>		
<b>Date</b>	22.02.2024	<b>Responsible</b>	Prof. Dr. Elmar Steurer