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|  | <b>Lebanese French University</b><br>Ministry of Higher Education and<br>Scientific Research<br>Kurdistan Region – Iraq |  |
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# A COURSE MODULE DESCRIPTOR FORM

(Course Book)

| Module Information            |                                                                                                                                                   |                         |       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|
| <b>Course Module Title</b>    | <b>Blockchain and cryptocurrencies</b>                                                                                                            |                         |       |
| ناونيشانى مۆديۆل              | البلوك تشين العملات المشفرة                                                                                                                       |                         |       |
| عنوان الوحدة                  | بلۆكچين و دراوى كرپيتۆ                                                                                                                            |                         |       |
| <b>Course Module Type</b>     | Core                                                                                                                                              | <b>Module Code</b>      | 4AC36 |
| <b>ECTS Credits</b>           | 6                                                                                                                                                 | <b>Module Level</b>     | 7th   |
| <b>Semester of Delivery</b>   | 5                                                                                                                                                 | <b>Dept. Code</b>       | AC    |
| <b>College (Code)</b>         | College of Administration and Economics                                                                                                           |                         |       |
| <b>Module Website (CMW)</b>   | <a href="https://ums.lfu.edu.krd/#">https://ums.lfu.edu.krd/#</a>                                                                                 |                         |       |
| <b>Module Leader (ML)</b>     | M.Sc. Ronyaz Hayyas Mahmood                                                                                                                       |                         |       |
| <b>e-mail</b>                 | <a href="mailto:Ronyaz.hayyas@lfu.edu.krd">Ronyaz.hayyas@lfu.edu.krd</a>                                                                          |                         |       |
| <b>ML Acad. Title</b>         | Assistant Lecturer                                                                                                                                | <b>ML Qualification</b> | M.Sc. |
| <b>ML ORCID</b>               | <a href="https://orcid.org/my-orcid?orcid=0000-0003-2657-5366">https://orcid.org/my-orcid?orcid=0000-0003-2657-5366</a>                           |                         |       |
| <b>ML Google Scholar Acc.</b> | <a href="https://scholar.google.com/citations?user=Jpcoek4AAAAJ&amp;hl=en#">https://scholar.google.com/citations?user=Jpcoek4AAAAJ&amp;hl=en#</a> |                         |       |

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| <b>Course Module Tutor</b> | M.Sc. Ronyaz Hayyas                                                      |                       |     |
| <b>Module Tutor email</b>  | <a href="mailto:Ronyaz.hayyas@lfu.edu.krd">Ronyaz.hayyas@lfu.edu.krd</a> |                       |     |
| <b>Date Approved</b>       | 5/9/2025                                                                 | <b>Version Number</b> | 1.0 |

| <b>Relation with Other Modules</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pre-requisites</b>                                         | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Module Aims, Learning Outcomes and Indicative Contents</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Module Introductory Description</b>                        | <p>This module introduces students to one of the most significant technological and financial innovations of the 21st century. Blockchain, as a decentralized and transparent digital ledger, has transformed how transactions are recorded, verified, and secured across industries. Cryptocurrencies, as the first large-scale application of blockchain, are reshaping the global financial landscape and challenging traditional notions of money, banking, and regulation.</p> <p>This module equips students with the knowledge and tools to comprehend the mechanics of blockchain systems, assess the role of cryptocurrencies in financial markets, and examine their implications for accounting, auditing, and reporting practices. The increasing regulatory emphasis on transparency and compliance makes the study of digital assets highly relevant for professionals in business, finance, and accounting. By linking theory with real-world developments, the module equips students to critically analyze opportunities, risks, and future trends in this rapidly evolving field.</p> |





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|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Module Aims</b></p>                      | <p>This module aims to provide students with a solid foundation in the principles, practices, and professional requirements of real estate management. By the end of the module, students should be able to:</p> <ol style="list-style-type: none"> <li>1. The concept and necessity of blockchain technology in modern financial and business environments.</li> <li>2. The principles of cryptocurrencies, their functions, and their role in reshaping digital finance.</li> <li>3. Different consensus mechanisms (e.g., Proof of Work, Proof of Stake) and their impact on security, efficiency, and sustainability.</li> <li>4. The use of blockchain for financial reporting and transaction recording, and its potential to enhance accuracy, traceability, and transparency.</li> <li>5. The legal, regulatory, and governance aspects of cryptocurrencies and blockchain applications in different jurisdictions.</li> <li>6. The applications of blockchain beyond finance, such as supply chain, healthcare, and public governance, and their potential to transform industries.</li> </ol> |
| <p><b>Module Learning Outcomes</b></p>         | <p>By the end of this module, students should be able to:</p> <ol style="list-style-type: none"> <li>1. Explain the fundamental concepts of blockchain technology and cryptocurrencies, including their definitions, characteristics, and evolution.</li> <li>2. Analyze the mechanisms of cryptocurrency transactions, including mining, wallets, and decentralized finance (DeFi) systems.</li> <li>3. Evaluate the economic aspects of digital currencies, including supply and demand, price volatility, and market impacts.</li> <li>4. Identify and assess the risks associated with cryptocurrencies, including financial crimes, money laundering, and security challenges.</li> <li>5. Examine the ethical, legal, and social implications of blockchain and cryptocurrencies, with a focus on privacy, transparency, and regulatory compliance.</li> <li>6. Discuss the future of money, including the role of central bank digital currencies (CBDCs), blockchain integration in financial institutions, and possible adoption scenarios.</li> </ol>                                         |
| <p><b>Learning and Teaching Strategies</b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p><b>Strategies</b></p>                       | <p>The curriculum will be imparted to the students through the use of contemporary technology, case studies, written materials, flipped classrooms, films, and case analyses. The assignment will be completed using a pedagogical approach that prioritizes the needs and interests of the pupils. The methods to be utilized to prioritize student learning outcomes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| Module Delivery                    |                |
|------------------------------------|----------------|
| <b>Structured workload (h/w)</b>   | 3 hours / Week |
| <b>Unstructured workload (h/w)</b> | 10.8           |
| <b>Total workload (h/w)</b>        | 3 hours / Week |

| Module Assessment      |             |                |                                   |                                                                                                                                                                                                                                                   |
|------------------------|-------------|----------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | Time/Number | Weight (Marks) | Week Due                          | Relevant Outcome                                                                                                                                                                                                                                  |
| Class Participation    | 1           | 10%            | Weekly                            | Class and activity participation rate, as well as the capacity to effectively communicate and interact with others.                                                                                                                               |
| Case-study             | 1           | 5%             | 5 <sup>th</sup> -12 <sup>th</sup> | Students develop the ability to critically analyze complex situations, identify problems, and evaluate alternative solutions.                                                                                                                     |
| Presentation / Seminar | 1           | 10%            | 3 <sup>th</sup> -11 <sup>th</sup> | Developing an awareness of how to utilize values to better their own professionalism, as well as increasing their skills in conducting comprehensive research, identifying reliable sources, and incorporating findings into their presentations. |
| Quiz                   | 2           | 10%            | 6 <sup>th</sup>                   | Reinforce and consolidate knowledge by providing regular opportunities for students to recall and apply what they have learned.                                                                                                                   |
| Tutorial               | 1           | 10%            | Weekly                            | explore subjects in greater depth, fostering a more thorough understanding of the material.                                                                                                                                                       |
| Midterm Exam           | 1           | 15%            | 8 <sup>th</sup> -11 <sup>th</sup> |                                                                                                                                                                                                                                                   |
| Final Exam             | 1           | 40%            | 15 <sup>th</sup>                  |                                                                                                                                                                                                                                                   |
| Total                  |             | 100%           |                                   |                                                                                                                                                                                                                                                   |

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| Learning and Teaching Resources |      |                           |
|---------------------------------|------|---------------------------|
|                                 | Text | Available in the Library? |
| Required Texts                  |      | Available Online          |
| Recommended Texts               |      | Available Online          |
| Websites                        |      |                           |

| Delivery Plan (Syllabus) |                                                                                                                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Week                     | Material Covered                                                                                                                                                                                                                     |
| Week 1                   | <p><b>Chapter One: Fundamentals of Blockchain</b></p> <p>Concept of Currency, Historical stages of determining currency rates, Banking and Financing, The Dawn of a New Financial Era. Blockchain: How does the Blockchain work?</p> |
| Week 2                   | <p>Key points to consider: History of Blockchain, Versions of the Blockchain, Types of Blockchain, Need for Different types of blockchain, Applications of Blockchain.</p>                                                           |
| Week 3                   | <p>Demerits of Blockchain, Blockchain and Management, Blockchain Applications in Accounting, Blockchain and Supply Chains</p>                                                                                                        |
| Week 4                   | <p><b>Chapter Two: Introduction of cryptocurrency.</b></p> <p>Cryptocurrencies, Types of Cryptocurrencies, What's the difference between Coins, Tokens &amp; AltCoin, how many cryptocurrencies are out there?</p>                   |
| Week 5                   | <p>How Cryptocurrencies Work? Advantages of Cryptocurrency, Challenges of Cryptocurrency</p>                                                                                                                                         |
| Week 6                   | <p><b>Chapter Three: Bitcoin and Ethereum.</b></p> <p>Bitcoin,<br/>Ethereum: What is Ethereum? Origin of Ethereum, Components within Ethereum,</p>                                                                                   |



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| Week 7  | Smart Contracts: What are Smart Contracts? What makes it better?<br>Technical Foundations: Protocols and Clients, Real-World Impact and Adoption,                                                                      |
| Week 8  | <b>Midterm,</b>                                                                                                                                                                                                        |
| Week 9  | <b>Chapter Four: - Digital currency, Blockchain, and cryptocurrency</b><br>WHAT IS DIGITAL CURRENCY? Electronic Money, the difference between Blockchain, cryptocurrency, and digital currency, Privacy & Transparency |
| Week 10 | Procedures for Negotiating Lease Renewals, Rights and Responsibilities During Lease Renewal, Managing Real Estate                                                                                                      |
| Week 11 | <b>Chapter Five:- Economics of Digital Currencies</b><br>Supply and Demand in Digital Currencies, Mining, <b>and</b> Digital Wallets                                                                                   |
| Week 12 | Decentralized Finance (DeFi), Digital Banks.                                                                                                                                                                           |
| Week 13 | <b>Chapter Six: - Cryptocurrency, Blockchain, and Future of Money</b><br>Future of Cryptocurrencies, Price Volatility, Financial Crimes, Money Laundering,                                                             |
| Week 14 | The Future of Money: Central Bank Digital Currencies (CBDCs) vs. Decentralized Cryptocurrencies, Integration of Blockchain in Banking and Financial Institutions, Possible Future Scenarios                            |
| Week 15 | <b>Final Exam</b>                                                                                                                                                                                                      |

### Course Keywords

Blockchain, Cryptocurrency, Digital Currency.

### APPENDIX: (Help and Information)

#### Percentage to Grade Chart

| Marks | Level | نأست |
|-------|-------|------|
|-------|-------|------|



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|           |           |         |
|-----------|-----------|---------|
| 90 – 100  | Excellent | نایاب   |
| 80 - < 90 | Very Good | زۆر باش |
| 70 - < 80 | Good      | باش     |
| 60 - < 70 | Medium    | ناوهند  |
| 50 - < 60 | Pass      | پهسه‌ند |
| 0 - < 50  | Fail      | کهوتوو  |