## MSc in Blockchain and Digital Currency (1.5 year / 90 ECTS, Master of Science, Conventional)

**TABLE 2: Course Distribution per Semester** 

| A/A  | Course<br>Type | Course Name  | Course<br>Code | Periods<br>per week | Period<br>duration | Number of weeks/ Academic semester | Total periods/<br>Academic<br>semester | Number of ECTS |  |  |  |  |  |
|--|----------------|--|----------------|---------------------|--------------------|------------------------------------|--|----------------|--|--|--|--|--|
| 1 <sup>st</sup> Semester   |                |  |                |                     |                    |                                    |  |                |  |  |  |  |  |
| 1.   | Compulsory     | Introduction to Blockchain and Digital Currency    | BLOC-511       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 2.   | Compulsory     | Blockchain Systems and Architectures               | BLOC-512       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 3.   | Compulsory     | Law and Regulation in Blockchain                   | BLOC-513       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 2nd Semester   |                |  |                |                     |                    |                                    |  |                |  |  |  |  |  |
| 4.   | Compulsory     | Emerging Topics in Blockchain and Digital Currency | BLOC-514       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 5.   | Compulsory     | Blockchain and Entrepreneurship<br>Management      | BLOC-515       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 6.   | Compulsory     | Principles of Money, Banking and Finance           | BLOC-516       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 3rd Semester - Elective Courses (*choose 3 courses or a Master Thesis) |                |  |                |                     |                    |                                    |  |                |  |  |  |  |  |
| 1.   | Elective       | Digital Currency Programming                       | BLOC-521       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 2.   | Elective       | Smart Contract Programming                         | BLOC-522       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 3.   | Elective       | Permissioned Blockchains Programming               | BLOC-523       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |
| 4.   | Elective       | Cryptographic Systems Security                     | BLOC-524       | 3                   | 55'                | 12                                 | 36                                     | 10             |  |  |  |  |  |

| 5. | Elective  | Emerging Topics in Law and Regulation    | BLOC-525 | 3   | 55' | 12 | 36  | 10 |
|----|-----------|--|----------|-----|-----|----|-----|----|
| 6. | Elective  | Emerging Topics in FinTech               | BLOC-526 | 3   | 55' | 12 | 36  | 10 |
| 7. | Elective  | Open and Decentralized Financial Systems | BLOC-527 | 3   | 55' | 12 | 36  | 10 |
| 8. | Elective  | Token Economics                          | BLOC-528 | 3   | 55' | 12 | 36  | 10 |
| 9. | *Elective | Master Thesis                            | BLOC-551 | n/a | n/a | 13 | n/a | 30 |

<sup>\*</sup> Students can choose to compose a postgraduate Thesis (30 ECTS) or attend three elective courses.

## **Suggested Pathways:**

- Software Engineering Pathway
  - Take all 6 compulsory courses and
- Choose 3 courses from 521, 522, 523 or 524

  Business, Finance and Regulation Pathway

  Take all 6 compulsory courses and

  Choose 3 courses from 525, 526, 527 or 528
- Free electives

  - Take all 6 compulsory courses and
     Choose any 3 elective courses or the Master Thesis