

**Faculty of Economic Sciences, University of Warsaw**  
**Master's Programme Curriculum**  
**Field of study: Quantitative Finance - full-time studies**  
**Academic year 2026/2027**

For those students, who did not get respective credits during undergraduate studies (obligation to complete in the first year):

|   |       |   |      |     |
|---|-------|---|------|-----|
| Occupational Safety and Health (OSH) (there is a possibility of using credits received within the last five years at selected UW faculties) | hours | 4 | ECTS | 0,5 |
| Intellectual Property Protection (IPP)  | hours | 6 | ECTS | 0,5 |

| No   | Course name  | Course type              | hours/<br>ECTS | Year       |            |            |            | total hours/<br>ECTS credits | Form of credit          |
|--|--|--------------------------|----------------|------------|------------|------------|------------|------------------------------|-------------------------|
|  |  |                          |                | I          |            | II         |            |                              |                         |
|  |  |                          |                | 1          | 2          | 3          | 4          |                              |                         |
| <b>A General Courses</b>                       |  |                          |                |            |            |            |            |                              |                         |
| 1  | General elective course (OGUN) humanistic profile  | Lecture/ Seminar classes | hours<br>ECTS  | 30<br>3    |            |            | 30<br>3    | 60<br>6                      | Credit                  |
| 2  | Elective course (IT tools) - choice from the current Faculty's offer   | Seminar classes          | hours<br>ECTS  |            |            | 30<br>3    |            | 30<br>3                      | Project                 |
| <b>Total of hours in the group of courses</b>  |  |                          |                | <b>30</b>  | <b>0</b>   | <b>30</b>  | <b>30</b>  | <b>90</b>                    |                         |
| <b>ECTS of credits in the group of courses</b> |  |                          |                | <b>3</b>   | <b>0</b>   | <b>3</b>   | <b>3</b>   | <b>9</b>                     |                         |
| <b>B Core courses</b>                          |  |                          |                |            |            |            |            |                              |                         |
| 3  | Statistics & Econometrics  | Lecture                  | hours<br>ECTS  | 30<br>2    |            |            |            | 30<br>2                      | Written exam            |
| 4  | Introduction to Quantitative Finance   | Lecture                  | hours<br>ECTS  | 30<br>3    |            |            |            | 30<br>3                      | Written exam            |
| 5  | Mathematical Methods for Finance   | Lecture                  | hours          | 30         |            |            |            | 60                           | Written exam            |
|  |  | Practical classes        | hours<br>ECTS  | 30<br>6    |            |            |            | 6                            |                         |
| 6  | Time Series Analysis   | Lecture                  | hours          |            | 30         |            |            | 60                           | Written exam, project   |
|  |  | Practical classes        | hours<br>ECTS  |            | 30<br>6    |            |            | 6                            |                         |
| 7  | Quantitative Strategies. High Frequency Data   | Lecture                  | hours          |            |            | 30         |            | 60                           | Written exam            |
|  |  | Practical classes        | hours<br>ECTS  |            |            | 30<br>6    |            | 6                            |                         |
| <b>Total of hours in the group of courses</b>  |  |                          |                | <b>120</b> | <b>60</b>  | <b>60</b>  | <b>0</b>   | <b>240</b>                   |                         |
| <b>ECTS of credits in the group of courses</b> |  |                          |                | <b>11</b>  | <b>6</b>   | <b>6</b>   | <b>0</b>   | <b>23</b>                    |                         |
| <b>C Field -of study courses</b>               |  |                          |                |            |            |            |            |                              |                         |
| 8  | Financial Statement Analysis   | Lecture                  | hours          | 30         |            |            |            | 45                           | Written exam            |
|  |  | Practical classes        | hours<br>ECTS  | 15<br>6    |            |            |            | 6                            |                         |
| 9  | Ethical Standards and Financial Law  | Lecture                  | hours<br>ECTS  | 30<br>3    |            |            |            | 30<br>3                      | Written exam            |
| 10   | Asset Allocation and Investment Strategies   | Seminar classes          | hours<br>ECTS  | 30<br>3    |            |            |            | 30<br>3                      | Written exam, project   |
| 11   | Machine Learning in Finance I  | Lecture                  | hours          | 15         |            |            |            | 30                           | Written exam, project   |
|  |  | lab.                     | hours<br>ECTS  | 15<br>4    |            |            |            | 4                            |                         |
| 12   | Equity and Fixed Income  | Lecture                  | hours          |            | 30         |            |            | 45                           | Written exam            |
|  |  | Practical classes        | hours<br>ECTS  |            | 15<br>5    |            |            | 5                            |                         |
| 13   | Derivatives Markets  | Lecture                  | hours          | 30         |            |            |            | 45                           | Written exam            |
|  |  | Practical classes        | hours<br>ECTS  |            | 15<br>4    |            |            | 4                            |                         |
| 14   | Corporate Finance  | Lecture                  | hours          | 30         |            |            |            | 45                           | Written exam            |
|  |  | Practical classes        | hours<br>ECTS  |            | 15<br>4    |            |            | 4                            |                         |
| 16   | Computational Finance  | Practical classes        | hours<br>ECTS  | 30<br>5    |            |            |            | 30<br>5                      | Practical exam, project |
| 17   | Reproducible Research  | Seminar classes          | hours<br>ECTS  | 30<br>3    |            |            |            | 30<br>3                      | Project                 |
| 18   | Risk Analysis and Modelling I  | Seminar classes          | hours<br>ECTS  |            |            | 30<br>5    |            | 30<br>5                      | Written exam            |
| 19   | C++ in Quantitative Finance I  | Practical classes        | hours<br>ECTS  |            |            | 30<br>4    |            | 30<br>4                      | Written exam            |
| 20   | Theory and practice of option pricing  | Practical classes        | hours<br>ECTS  |            |            | 30<br>6    |            | 30<br>6                      | Written exam            |
| 21   | Machine Learning in Finance II   | Lab.                     | hours<br>ECTS  |            |            | 30<br>3    |            | 30<br>3                      | Written exam            |
| 22   | Risk Analysis and Modelling II   | Seminar classes          | hours<br>ECTS  |            |            | 30<br>4    |            | 30<br>4                      | Written exam            |
| 23   | C++ in Quantitative Finance II   | Seminar classes          | hours<br>ECTS  |            |            | 30<br>4    |            | 30<br>4                      | Written exam            |
| 25   | Elective course (economics &finance)<br>Students choose 1 out of 3 courses offered in the spring semester (1x30h):<br>Advanced Macroeconomics, Empirics of Financial Markets, Venture Capital and Private Equity | Seminar classes          | hours          |            |            | 30         |            | 30                           | Credit                  |
|  |  |                          | ECTS           |            |            | 3          |            | 3                            |                         |
| 26   | Algorithmic Trading System   | Practical classes        | hours<br>ECTS  |            |            | 30<br>5    |            | 30<br>5                      | Written exam            |
| <b>Total of hours in the group of courses</b>  |  |                          |                | <b>135</b> | <b>195</b> | <b>120</b> | <b>120</b> | <b>570</b>                   |                         |
| <b>ECTS of credits in the group of courses</b> |  |                          |                | <b>16</b>  | <b>21</b>  | <b>18</b>  | <b>16</b>  | <b>71</b>                    |                         |
| <b>D Master Thesis Seminar</b>                 |  |                          |                |            |            |            |            |                              |                         |
| 27   | Master Thesis Seminar  | Seminar                  | hours<br>ECTS  |            | 30<br>3    | 30<br>3    | 30<br>11   | 90<br>17                     | Credit                  |
| <b>Total of hours in the group of courses</b>  |  |                          |                | <b>0</b>   | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>90</b>                    |                         |
| <b>ECTS of credits in the group of courses</b> |  |                          |                | <b>0</b>   | <b>3</b>   | <b>3</b>   | <b>11</b>  | <b>17</b>                    |                         |
| <b>Total of hours</b>                          |  |                          |                | <b>285</b> | <b>285</b> | <b>240</b> | <b>180</b> | <b>990</b>                   |                         |
| <b>ECTS of credits</b>                         |  |                          |                | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>120</b>                   |                         |