

## National Research University Higher School of Economics (HSE)

Curriculum  
Field of study 10.05.01 "Cyber Security"  
Educational Programme "Cyber Security"

APPROVED by  
Vice Rector

Tikhonov Moscow Institute of Electronics and Mathematics, Moscow  
2nd, 2022/2023 year of study

"\_\_" \_\_\_\_\_ 20\_\_.

**Length of Programme: 6 years**  
**Years of Study: 2021/2022 - 2026/2027**  
**Mode of Study: Full Time**  
**Degree: Specialist's Degree**

**Number of Students: 90**  
**Number of Groups: 3**

| Block Code                          | Course  | Department                        | Credits   | Total Academic Hours | Contact Hours | Allocation of Contact Hours |            |            |            | Additional Information |
|-------------------------------------|---|-----------------------------------|-----------|----------------------|---------------|-----------------------------|------------|------------|------------|------------------------|
|                                     |   |                                   |           |                      |               | 1                           | 2          | 3          | 4          |                        |
| (! !)                               |   |                                   | <b>60</b> | <b>2442</b>          | <b>1088</b>   | <b>252</b>                  | <b>252</b> | <b>330</b> | <b>328</b> |                        |
| Major                               |   |                                   | <b>45</b> | <b>1710</b>          | <b>866</b>    | <b>178</b>                  | <b>178</b> | <b>256</b> | <b>254</b> |                        |
| Core Professional Block (Major)     |   |                                   | <b>36</b> | <b>1368</b>          | <b>712</b>    | <b>136</b>                  | <b>136</b> | <b>220</b> | <b>220</b> |                        |
| (! !)                               |   |                                   | <b>30</b> | <b>1140</b>          | <b>560</b>    | <b>88</b>                   | <b>88</b>  | <b>192</b> | <b>192</b> |                        |
| 1                                   | Calculus  | Department of Applied Mathematics | 9         | 342                  | 128           | 28A                         | 28A        | 36         | 36A        |                        |
| 2                                   | Physics   | School of Electronic Engineering  | 3         | 114                  | 64            | 32                          | 32A        |            |            |                        |
| 3                                   | Probability Theory  | Department of Computer Security   | 3         | 114                  | 56            |                             |            | 28         | 28A        |                        |
| 4                                   | Mathematical Logic and Theory of Algorithms                       | Department of Applied Mathematics | 3         | 114                  | 64            |                             |            | 32         | 32A        |                        |
| 5                                   | Discrete Mathematics  | Department of Computer Security   | 3         | 114                  | 72            |                             |            | 36         | 36A        |                        |
| 6                                   | Electronics and Circuit Engineering                               | School of Electronic Engineering  | 3         | 114                  | 64            |                             |            | 32         | 32A        |                        |
| 7                                   | Algebra   | Department of Computer Security   | 6         | 228                  | 112           | 28                          | 28A        | 28         | 28A        |                        |
| (! !)                               |   |                                   | <b>3</b>  | <b>114</b>           | <b>96</b>     | <b>48</b>                   | <b>48</b>  |            |            |                        |
| 8                                   | Programming Languages   | Department of Applied Mathematics | 3         | 114                  | 96            | 48                          | 48A        |            |            |                        |
| (! !)                               |   |                                   | <b>3</b>  | <b>114</b>           | <b>56</b>     |                             |            | <b>28</b>  | <b>28</b>  |                        |
| 9                                   | Organizational and Legal Support for Information Security         | Department of Computer Security   | 3         | 114                  | 56            |                             |            | 28         | 28A        |                        |
| Elective Professional Block (Major) |   |                                   | <b>9</b>  | <b>342</b>           | <b>154</b>    | <b>42</b>                   | <b>42</b>  | <b>36</b>  | <b>34</b>  |                        |
| 10                                  | History of Cryptography   | Department of Computer Security   | 3         | 114                  | 70            |                             |            | 36         | 34A        |                        |
| 11                                  | Computer Mathematics: Supplementary Chapters (offered in English) | Department of Applied Mathematics | 3         | 114                  | 48            | 24                          | 24A        |            |            |                        |
| 12                                  | Basics of Information Security                                    | Department of Computer Security   | 3         | 114                  | 36            | 18                          | 18A        |            |            |                        |

|    |                      |                                 |           |            |            |           |           |           |           |  |
|----|----------------------|---------------------------------|-----------|------------|------------|-----------|-----------|-----------|-----------|--|
|    | Internship           |                                 | <b>4</b>  | <b>152</b> | <b>2</b>   |           |           |           |           |  |
|    | (!! !!)              |                                 | <b>4</b>  | <b>152</b> | <b>2</b>   |           |           |           |           |  |
| 13 | ( !)                 |                                 | 4         | 152        | 2          |           |           |           | vA        |  |
|    | (!! !!)              |                                 | <b>1</b>  | <b>200</b> | <b>144</b> | <b>36</b> | <b>36</b> | <b>36</b> | <b>36</b> |  |
|    | Core General Courses |                                 | <b>1</b>  | <b>200</b> | <b>144</b> | <b>36</b> | <b>36</b> | <b>36</b> | <b>36</b> |  |
| 14 | Physical Training    | Department of Physical Training | 1         | 200        | 144        | 36        | 36        | 36        | 36A       |  |
|    | Minor                |                                 | <b>10</b> | <b>380</b> | <b>76</b>  | <b>38</b> | <b>38</b> | <b>38</b> | <b>38</b> |  |
| 15 | Minor ( !)           |                                 | 10        | 380        | 76         | 38        | 38A       | 38        | 38A       |  |
| 16 | ( !)                 |                                 | 6         | 228        | 104        | 28        | 32A       | 44        |           |  |

A Interim assessment