For all the courses it is required to take the lecture and the seminar/lab course together. The prerequisite for the exam is to obtain the term mark first.

Name of the program: Computer Science MSc
Program Coordinator: Zoltán Fülöp

<table>
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<th>course code</th>
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Elective courses (one of them is mandatory):

| IMEN111E    | Mathematical foundations of logic and functional programming lecture | Iván, Szabolcs |             | 2        | 3                       | exam  |              |
| IMENO75E    | Artificial neural networks and their applications | Tóth, László |             | 2        | 3                       | exam  |              |

Sum of credits: 23

Elective core studies in mathematics and computer science. Minimum requirement is 13 credits.

| IMEN102E    | Analysis lecture | Makay, Géza |             | 2        | 3                       | exam  |              |
| IMEN102G    | Analysis practice | Makay, Géza |             | 2        | 2                       | term mark |
| IMEN221E    | Game theory lecture | Puhár, András |             | 2        | 3                       | exam  |              |
| IMEN221G    | Game theory practice | Puhár, András |             | 1        | 1                       | term mark |
| IMEN223E    | Nonlinear programming lecture | Szabó, Péter Gábor |             | 2        | 3                       | exam  |              |
| IMEN223G    | Nonlinear programming lab | Szabó, Péter Gábor |             | 1        | 1                       | term mark |
| IMEN210E    | Data mining lecture | Farkas, Richárd |             | 2        | 3                       | exam  |              |
| IMEN210G    | Data mining practice | Farkas, Richárd |             | 2        | 2                       | term mark |
| IMEN704E    | Tree automata lecture | Fülöp, Zoltán |             | 2        | 3                       | exam  | spring |
| IMEN704G    | Tree automata practice | Fülöp, Zoltán |             | 1        | 1                       | term mark | spring |

Sum of credits: 22

Mandatory computer science studies. Minimum requirement is 24 credits.

<p>| IMEN103E    | Advanced programming lecture | Ferenc, Rudolf |             | 2        | 3                       | exam  |              |
| IMEN103G    | Advanced programming lab | Ferenc, Rudolf |             | 2        | 2                       | term mark |
| IMEN104E    | Advanced image processing lecture | Palágyi, Kálmán |             | 2        | 3                       | exam  |              |
| IMEN104G    | Advanced image processing lab | Palágyi, Kálmán |             | 1        | 1                       | term mark |
| IMEN106E    | Machine learning lecture | Carik, János |             | 3        | 4                       | exam  |              |
| IMEN106G    | Machine learning practice | Carik, János |             | 1        | 2                       | term mark |
| IMEN107E    | Advanced graphical algorithms lecture | Nagy, Antal |             | 2        | 2                       | exam  |              |
| IMEN107G    | Advanced graphical algorithms lab | Nagy, Antal |             | 1        | 2                       | term mark |
| IMEN109E    | Program systems development lecture | Bilicki, Vilmos |             | 2        | 3                       | exam  |              |</p>
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