

# 2nd year

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| Course  | Hours      |           |            |            |             | ECTS      |
|---|------------|-----------|------------|------------|-------------|-----------|
|   | L          | S         | P          | O          | Σ           |           |
| <b>3rd semester</b>                               | <b>245</b> | <b>15</b> | <b>250</b> | <b>60</b>  | <b>570</b>  | <b>34</b> |
| Practicals in thermodynamics                      | 20         | 0         | 40         | 0          | 60          | 4         |
| Heat mass transfer                                | 30         | 15        | 30         | 0          | 75          | 5         |
| Physical metallurgy 1                             | 60         | 0         | 30         | 0          | 90          | 6         |
| Mathematics 3                                     | 30         | 0         | 30         | 60         | 120         | 4         |
| Materials mechanics                               | 45         | 0         | 30         | 0          | 75          | 5         |
| Thermodynamics of materials                       | 45         | 0         | 30         | 0          | 75          | 5         |
| Thermodynamic practicum                           | 15         | 0         | 60         | 0          | 75          | 5         |
| <b>4th semester</b>                               | <b>225</b> | <b>15</b> | <b>210</b> | <b>450</b> | <b>900</b>  | <b>30</b> |
| Numerical modelling                               | 30         | 15        | 30         | 75         | 150         | 5         |
| Production systems in solid state                 | 60         | 0         | 30         | 90         | 180         | 6         |
| Materials analysis and testing                    | 45         | 0         | 30         | 75         | 150         | 5         |
| Management of processes with metal melts          | 45         | 0         | 30         | 75         | 150         | 5         |
| Practicals in metallurgical processes and casting | 15         | 0         | 60         | 75         | 150         | 5         |
| General optional course 1                         | 30         | 0         | 30         | 60         | 120         | 4         |
| <b>TOTAL</b>                                      | <b>470</b> | <b>30</b> | <b>460</b> | <b>510</b> | <b>1470</b> | <b>64</b> |

**Abbreviations used for the syllabus:**

L – lectures

S – seminar

P – practice

O – other forms of educational activities (mainly project work)

ECTS – European Credits Transfer System (1 credit point equals a 30-hour student workload)

**General optional course 1** must be chosen from the list **Optional courses – general course** on the page **3rd year** of study.



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