| \# | Studying / Research Component | Prerequisites |  | Academic Semesters |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | I | II | III | IV | V | VI | VII | VIII | IX | X |
| Mandatory study course of the free component- 29 credits |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | Computer skills | - | 5 | 5 |  |  |  |  |  |  |  |  |  |
| 2. | English language 1 (B1.1) | - | 5 | 5 |  |  |  |  |  |  |  |  |  |
| 3. | English language 2 (B1.2) | English language 1 (B1.1) | 5 |  | 5 |  |  |  |  |  |  |  |  |
| 4. | English language 3 (B2.1) | English language 2 (B1.2) | 5 |  |  | 5 |  |  |  |  |  |  |  |
| 5. | English language 4 (B2.2) | English language 3 (B2.1) | 5 |  |  |  | 5 |  |  |  |  |  |  |
| 6. | Academic writing | - | 4 |  | 4 |  |  |  |  |  |  |  |  |
| Study courses of a subject/subject group - 130 credits; including: mandatory training courses - 121 credits |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7. | Mathematical analysis | - | 6 | 6 |  |  |  |  |  |  |  |  |  |
| 8. | Elements of Linear Algebra and analytic Geometry | - | 6 |  |  | 6 |  |  |  |  |  |  |  |
| 9. | Mechanics 1 | - | 6 | 6 |  |  |  |  |  |  |  |  |  |
| 10. | Mechanics 2 | Mechanics 1 <br> Mathematical analysis | 6 |  | 6 |  |  |  |  |  |  |  |  |
| 11. | Thermodynamics | Mechanics 2 | 6 |  |  | 6 |  |  |  |  |  |  |  |
| 12. | Electromagnetism 1 | Mathematical analysis | 6 |  |  |  | 6 |  |  |  |  |  |  |
| 13. | Electromagnetism2 | Electromagnetism 1 | 6 |  |  |  |  | 6 |  |  |  |  |  |
| 14. | Optics | Linear Algebra and analytic Geometry s; Mechanics $ゝ 2$ | 4 |  |  |  |  |  | 4 |  |  |  |  |
| 15. | Quantum mechanics and relativism | Mechanics 2 | 3 |  |  |  |  |  |  | 3 |  |  |  |
| 16. | Atomic Physics | Quantum mechanics and relativism | 3 |  |  |  |  |  |  |  | 3 |  |  |
| 17. | Modern Physics | Quantum mechanics and relativism | 3 |  |  |  |  |  |  |  |  | 3 |  |
| 18. | General Chemistry | Without prerequisite | 5 | 5 |  |  |  |  |  |  |  |  |  |


| 19. | Inorganic chemistry1 | General Chemistry | 5 | 5 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20. | Organic Chemistry 1 | General Chemistry | 5 | 5 |  |  |  |  |  |  |  |
| 21. | Inorganic chemistry2 | Inorganic chemistry 1 | 5 |  | 5 |  |  |  |  |  |  |
| 22. | Organic Chemistry 2 | Organic Chemistry 1 | 5 |  | 5 |  |  |  |  |  |  |
| 23. | Cellular and molecular Biology | Organic Chemistry 2 | 5 |  |  | 5 |  |  |  |  |  |
| 24. | Biophysics | Cellular and molecular Biology ; <br> English language B2.2 | 3 |  |  |  | 3 |  |  |  |  |
| 25. | Microbiology | Cellular and molecular Biology | 4 |  |  |  | 4 |  |  |  |  |
| 26. | A general course in Botany | Cellular and molecular Biology | 4 |  |  |  | 4 |  |  |  |  |
| 27. | A general course in Zoology | Cellular and molecular Biology | 4 |  |  |  | 4 |  |  |  |  |
| 28. | Human Anatomy | Cellular and molecular Biology ; <br> English language B2.2 | 4 |  |  |  | 4 |  |  |  |  |
| 29. | Human Physiology | Human Anatomy ; Biophysics | 4 |  |  |  |  | 4 |  |  |  |
| 30. | Ecology | Without prerequisite | 3 |  |  |  |  | 3 |  |  |  |
| 31. | Genetics | Human Physiology | 4 |  |  |  |  |  | 4 |  |  |
| 32. | Biology of Development | Human Physiology | 3 |  |  |  |  |  | 3 |  |  |
| 33. | Evolution | Biology of Development | 3 |  |  |  |  |  |  | 3 |  |

Optional courses of the subject/subject group - 9 credits


| 38. | Bases of of Neurobiology | Human Physiology | 3 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39. | Physical Geography | Without prerequisite | 6 |  |  |  |  |  |  |  |  |  |  |

## Training courses of the teacher training module - 63 credits; including: mandatory training courses - 60 credits



## Optional training courses of the teacher training module - 3 credits

| 57. | Media literacy | Without prerequisite | 3 |  |  |  |  |  |  | 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 58. | Intercultural education and pedagogical approaches | Without prerequisite | 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| 59. | Information security management | English language B2.2 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |

## Mandatory study courses/components of school practice and practice research module - 60 credits

| 60. | Innovative research methods in education | Without prerequisite | 5 |  |  |  |  |  |  | 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 61. | Practice-based research | Innovative research methods in education; English language B2.2 | 5 |  |  |  |  |  |  |  | 5 |  |  |
| 62. | Diagnostic research and differentiated approach | Innovative research methods in education; English language B2.2 | 5 |  |  |  |  |  |  |  |  | 5 |  |
| 63. | Pedagogical Practice 1 | Physics teaching methodology 2; modern methods of teaching Chemistry; Problem-based and research-based teaching methods in Biology. | 15 |  |  |  |  |  |  |  |  | 15 |  |
| 64. | Pedagogical Practice 2 | Pedagogical Practice 1 | 10 |  |  |  |  |  |  |  |  |  | 10 |
| 65. | Master's thesis | I-IX semester subject/subject group and teacher training module training courses; diagnostic research and differentiated approach; Pedagogical practice 1. | 20 |  |  |  |  |  |  |  |  |  | 20 |
| Optiona | study course of the free component - 18 credits |  |  | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 4 | 4 | 0 |
| 66 | Introduction to Informatics | Without prerequisite | 5 |  | 5 |  |  |  | 5 |  |  |  |  |
| 67 | Introduction to web technologies | Computer skills | 5 |  | 5 |  |  |  | 5 |  |  |  |  |
| 68 | General Astronomy | Without prerequisite | 5 |  | 5 |  |  |  | 5 |  |  |  |  |
| 69 | Database management systemMs SQL Server | Computer skills | 5 |  | 5 |  |  |  | 5 |  |  |  |  |
| 70 | The role of the educational program in the formation of tl student | Without prerequisite | 4 |  |  |  |  |  |  |  | 4 | 4 |  |
| 71 | Knowledge and value education | Without prerequisite | 5 |  | 5 |  |  |  | 5 |  |  |  |  |
| 72 | Methodology of teaching natural science | Class assessment | 4 |  |  |  |  |  |  |  | 4 | 4 |  |
| 73 | The art of debate | Without prerequisite | 4 |  |  |  |  |  |  |  | 4 | 4 |  |
| 74 | English language A1 | Without prerequisite | 5 | $5^{1}$ |  |  |  |  |  |  |  |  |  |
| 75 | English language A2 | English language A1 | 5 |  | 5 |  |  |  |  |  |  |  |  |

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## Note:

1. Confirmation of knowlegde of English language at the B2 level or achievement within the program is mandatory. The student confirms the level of knowledge of the English language in accordance with the "Rule for determining the language competence of a student of European University";
2. Within the framework of the program, the student starts learning English from the level confirmed by the "Rules for determining the language competence of a student of European University". In case the student cannot prove his/her knowledge of the English language at the A2 level, he/she starts studying the English language within the program from the appropriate level confirmed according to the mentioned rule (English language A1 / English language A2). The levels required to start at the B1.1 level of English (English language A1 / English language A2) are chosen by the student from the optional courses of the free component provided by the program;
3. In case the student confirms his/her knowledge of the English language at the B2 level in accordance with the "Rule for determining the language competence of a student of European university, he/she is exempted from the acquisition of the English language component and acquires the credits (20 credits) of the main field of study with optional courses or free credits. Whether the level confirmed by the student is higher than the initial level defined by the program (B1.1), the student fills up the volume of remaining credits with optional courses or free credits of the main field of study.

[^0]:    ${ }^{1}$ see. Note

