# Study programme curriculum Laboratory biomedicine

2024/2025

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| Name of study programme | **Laboratory biomedicine** |
| Programme characteristics |  |
| Type | master's |
| Cycle | master |
| University of Ljubljana members | * Faculty of Pharmacy, Aškerčeva 7, 1000 Ljubljana, Slovenija |

### Year 1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | Contact hours | | | | |  | | | | |
|  | University Course Code | Course title | Lecturers | Lectures | Seminar | Tutorials | Clinical tutorials | Other forms of study | Individual student work | Total hours | ECTS | Semesters | Elective |
| 1. | 0038303 | Selected topics in Biochemistry | Janko Kos | 45 | 0 | 15 | 0 | 0 | 120 | 180 | 6 | 1st semester | no |
| 2. | 0038310 | Selected topics in Biomedical Informatics | Iztok Grabnar | 30 | 5 | 25 | 0 | 0 | 120 | 180 | 6 | 1st semester | no |
| 3. | 0038306 | Molecular Enzymology | Marko Goličnik | 30 | 15 | 15 | 0 | 0 | 120 | 180 | 6 | 1st semester | no |
| 4. | 0038305 | Biomedical Analytics | Barbara Ostanek | 15 | 15 | 30 | 0 | 0 | 120 | 180 | 6 | 1st semester | no |
| 5. | 0038304 | Pathologic physiology | Sergej Pirkmajer | 45 | 15 | 0 | 0 | 0 | 120 | 180 | 6 | 2nd semester | no |
| 6. | 0038308 | Leadership and communication in laboratory biomedicine | Nejc Horvat | 20 | 0 | 20 | 0 | 0 | 80 | 120 | 4 | 2nd semester | no |
| 7. | 0038307 | Design and Quality Assurance in a Medical Laboratory | Joško Osredkar | 40 | 10 | 0 | 0 | 0 | 100 | 150 | 5 | 2nd semester | no |
| 8. | 0111811 | Elective course I |  | 35 | 17 | 7 |  |  | 91 | 150 | 5 | 2nd semester | yes |
| 9. | 0111812 | Elective course 2 |  | 35 | 18 | 8 |  |  | 89 | 150 | 5 | 2nd semester | yes |
| 10. | 0643324 | Metabolomics | Robert Roškar | 30 |  | 30 |  |  | 120 | 180 | 6 | 1st semester | no |
| 11. | 0643329 | Pharmacogenomics and other personalized approaches in laboratory medicine | Nataša Karas Kuželički | 35 |  | 15 |  |  | 100 | 150 | 5 | 2nd semester | no |
|  | | Total | | 360 | 95 | 165 | 0 | 0 | 1180 | 1800 | 60 |  | |

### Year 1, izbirni predmeti

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | Contact hours | | | | |  | | | | |
|  | University Course Code | Course title | Lecturers | Lectures | Seminar | Tutorials | Clinical tutorials | Other forms of study | Individual student work | Total hours | ECTS | Semesters | Elective |
| 1. | 0105588 | Research Design, Analysis and Interpretation | Lea Knez | 30 | 15 | 15 | 0 | 0 | 90 | 150 | 5 | 2nd semester | yes |
| 2. | 0038295 | Basics of Clinical Pharmacokinetics | Iztok Grabnar | 30 | 15 | 15 | 0 | 0 | 90 | 150 | 5 | 2nd semester | yes |
| 3. | 0105592 | Legislative and Ethics in Biomedicine | Borut Božič | 30 | 30 | 0 | 0 | 0 | 90 | 150 | 5 | 2nd semester | yes |
| 4. | 0038293 | Selected topics in Haematology | Helena Podgornik | 30 | 30 | 0 | 0 | 0 | 90 | 150 | 5 | 2nd semester | yes |
| 5. | 0038297 | Toxicological chemistry | Marija Sollner Dolenc | 45 | 15 | 0 | 0 | 0 | 90 | 150 | 5 | 2nd semester | yes |
| 6. | 0643330 | Cellular therapies and tissue engineering | Matjaž Jeras | 45 |  | 15 |  |  | 90 | 150 | 5 | 2nd semester | yes |
|  | | Total | | 210 | 105 | 45 | 0 | 0 | 540 | 900 | 30 |  | |

### Year 2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | Contact hours | | | | |  | | | | |
|  | University Course Code | Course title | Lecturers | Lectures | Seminar | Tutorials | Clinical tutorials | Other forms of study | Individual student work | Total hours | ECTS | Semesters | Elective |
| 1. | 0643325 | Use of bioinformatics tools in laboratory medicine | Alenka Šmid | 14 |  | 16 |  |  | 60 | 90 | 3 | 1st semester | no |
| 2. | 0038312 | Clinical Biochemical Diagnostics | Janja Marc | 45 | 15 | 0 | 0 | 0 | 120 | 180 | 6 | 1st semester | no |
| 3. | 0038311 | Immunology in Laboratory Diagnostics | Borut Božič | 30 | 15 | 15 | 0 | 0 | 120 | 180 | 6 | 1st semester | no |
| 4. | 0111813 | Elective course III |  | 20 | 6 | 34 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 5. | 0111814 | Elective course IV |  | 20 | 6 | 34 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 6. | 0111815 | Elective course V |  | 20 | 6 | 34 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 7. | 0038313 | Individual research work for the master's thesis | Nataša Karas Kuželički | 0 | 2 | 0 | 0 | 288 | 430 | 720 | 24 | 2nd semester | no |
| 8. | 0038314 | Master's thesis defence | Nataša Karas Kuželički | 0 | 0 | 0 | 0 | 10 | 170 | 180 | 6 | 2nd semester | no |
|  | | Total | | 149 | 50 | 133 | 0 | 298 | 1170 | 1800 | 60 |  | |

### Year 2, izbirni predmeti

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | Contact hours | | | | |  | | | | |
|  | University Course Code | Course title | Lecturers | Lectures | Seminar | Tutorials | Clinical tutorials | Other forms of study | Individual student work | Total hours | ECTS | Semesters | Elective |
| 1. | 0105534 | Laboratory Transfusion Medicine and Transplantation | Matjaž Jeras | 30 | 10 | 20 | 0 | 0 | 90 | 150 | 5 | 1st semester | yes |
| 2. | 0038300 | Reactive Oxygen and Nitrogen Intermediates | Janez Mravljak | 30 | 15 | 15 | 0 | 0 | 90 | 150 | 5 | 1st semester | yes |
| 3. | 0038302 | Development and Implementation of Diagnostic Methods | Bojan Doljak | 30 | 15 | 15 | 0 | 0 | 90 | 150 | 5 | 1st semester | yes |
| 4. | 0643331 | Critical evaluation of scientific literature and scientific writing | Nataša Karas Kuželički | 15 |  | 45 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 5. | 0643332 | Proteomics 2 | Borut Božič | 15 |  | 45 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 6. | 0643333 | Recombinant DNA techniques | Mojca Lunder | 15 |  | 45 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 7. | 0643334 | Entrepreneurship in biomedicine | Mitja Kos | 15 | 15 | 30 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 8. | 0643335 | Analysis of dosage forms | Mirjam Gosenca Matjaž | 15 |  | 45 |  |  | 90 | 150 | 5 | 1st semester | yes |
| 9. | 0643336 | Microscopy methods | Borut Božič | 15 |  | 45 |  |  | 90 | 150 | 5 | 1st semester | yes |
|  | | Total | | 180 | 55 | 305 | 0 | 0 | 810 | 1350 | 45 |  | |

20. january, 2025