

**SYSTEMS BIOLOGY, master program**

ACADEMIC CALANDER for Autumn, 2023  
3 semester

| Month     | Day | Week day | Lecture starts | Lecture ends | Subject                                             | Tuitor                       | Room     | Building/ Platform | Comments |
|-----------|-----|----------|----------------|--------------|-----------------------------------------------------|------------------------------|----------|--------------------|----------|
| September | 1   | V        |                |              |                                                     |                              |          |                    |          |
|           | 4   | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 5   | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            | R301     | LSC                | Lecture  |
|           | 6   | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 7   | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 8   | V        |                |              |                                                     |                              |          |                    |          |
|           | 11  | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 12  | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            |          |
|           | 13  | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 14  | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 15  | V        |                |              |                                                     |                              |          |                    |          |
|           | 18  | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 19  | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 20  | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 21  | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 22  | V        |                |              |                                                     |                              |          |                    |          |
|           | 25  | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 26  | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 27  | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 28  | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 29  | V        |                |              |                                                     |                              |          |                    |          |
| October   | 2   | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 3   | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 4   | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 5   | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 6   | V        | 14             | 16           | 1. Object of Systems biology                        | A. Jakaitienė, K. Šablauskas |          | MSTeams            | Lecture  |
|           | 9   | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 10  | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 11  | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 12  | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 13  | V        | 15             | 19           | Systems biology: project                            | Mentors                      |          | Teams live         | Seminar  |
|           | 16  | I        |                |              |                                                     |                              |          |                    |          |
|           | 17  | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 18  | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 19  | IV       | 14             | 18           | 4. Deep Learning in Computational Biology           | dr. L. Petkevičius           |          | MSTeams            | Practice |
|           | 20  | V        | 9              | 13           | 4. Deep Learning in Computational Biology           | K. Šablauskas                | 312      | MF1                | Seminar  |
|           |     |          | 15             | 19           | Systems biology: project                            | Mentors                      |          | Teams live         | Seminar  |
|           | 23  | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 24  | II       | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 25  | III      | 15             | 19           | Neurobiology                                        | Prof. O. Rukšėnas            |          | MSTeams            | Lecture  |
|           | 26  | IV       | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            | 231      | MF1                | Practice |
|           | 27  | V        | 9              | 13           | 5. Synthetic Biology                                | K. Šablauskas                | 312      | MF1                |          |
|           |     |          | 15             | 19           | Systems biology: project                            | Mentors                      |          | Teams live         | Seminar  |
|           | 30  | I        | 11             | 13           | Science forum: Behavioral pharmacology of addiction | Prof. V. Vengeliienė         | TBA      | LSC                | Lecture  |
|           |     | I        | 15             | 19           | Mathematical physiology                             | Prof. A. Alaburda            |          | MSTeams            | Lecture  |
|           | 31  | II       | 9              | 13           | 5. Synthetic Biology                                | K. Šablauskas                | 101 G.V. | MF1                |          |

|          |    |     |    |                                                        |                               |              |            |                  |  |
|----------|----|-----|----|--------------------------------------------------------|-------------------------------|--------------|------------|------------------|--|
| November | 1  | III |    |                                                        |                               |              |            |                  |  |
|          | 2  | IV  |    |                                                        |                               |              |            |                  |  |
|          | 3  | V   | 15 | 19 Mathematical physiology                             | Prof. A. Alaburda             | 143          | MF1        | Practice         |  |
|          | 6  | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture          |  |
|          | 7  | II  | 11 | 13 Science forum: Behavioral pharmacology of addiction | Prof. V. Vengeliienė          | TBA          | LSC        | Lecture          |  |
|          |    |     | 15 | 19 Systems biology: project                            | Mentors                       |              | Teams live | Seminar          |  |
|          | 8  | III | 15 | 19 Neurobiology                                        | Prof. O. Rukšėnas             |              | MSTeams    | Lecture          |  |
|          | 9  | IV  | 15 | 16 Neurobiology                                        | Prof. O. Rukšėnas             |              | MSTeams    | Lecture          |  |
|          | 10 | V   | 15 | 19 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 13 | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 14 | II  | 11 | 13 Science forum: Behavioral pharmacology of addiction | Prof. V. Vengeliienė          | TBA          | LSC        | Seminar          |  |
|          | 15 | III | 15 | 19 Systems biology: project                            | Mentors                       |              | Teams live | Seminar          |  |
|          | 16 | IV  | 9  | 13 3. Metabolomic pathways and Pathway Enrichment      | Invited lecturer              | 353          | MF1        | Lecture, seminar |  |
|          | 17 | V   | 15 | 19 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 20 | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 21 | II  | 11 | 13 Science forum: Behavioral pharmacology of addiction | Prof. V. Vengeliienė          | TBA          | LSC        | Seminar          |  |
|          | 22 | III | 9  | 11 2. Discovering Quantitative Trait Loci (QTLs)       | E. Siavriene/invited lecturer |              | MSTeams    | Lecture          |  |
|          |    |     | 15 | 19 Systems biology: project                            | Mentors                       |              | Teams live | Seminar          |  |
|          | 23 | IV  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 353          | MF1        | Lecture, seminar |  |
|          | 24 | V   | 9  | 13 Science Forum: Bioethics issues in system biology   | prof. E. Gefenas              | 235          | MF1        | Lecture, seminar |  |
|          | 27 | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 28 | II  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 235          | MF1        | Lecture, seminar |  |
|          | 29 | III | 9  | 13 Science Forum: Bioethics issues in system biology   | prof. E. Gefenas              | 235          | MF1        | Lecture, seminar |  |
|          |    |     | 15 | 19 Systems biology: project                            | Mentors                       |              | Teams live | Seminar          |  |
|          | 30 | IV  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 235          | MF1        | Lecture, seminar |  |
|          | 1  | V   | 9  | 13 Science Forum: Bioethics issues in system biology   | lect. V. Lukaševičienė        | 235          | MF1        | Lecture, seminar |  |
| December | 4  | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture          |  |
|          | 5  | II  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 363          | MF1        | Lecture, seminar |  |
|          | 6  | III | 9  | 13 Science Forum: Bioethics issues in system biology   | lect. V. Lukaševičienė        | 315          | MF1        | Lecture, seminar |  |
|          |    |     | 15 | 19 Systems biology: project                            | Mentors                       |              | Teams live | Seminar          |  |
|          | 7  | IV  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 353          | MF1        | Lecture, seminar |  |
|          | 8  | V   | 9  | 13 Science Forum: Bioethics issues in system biology   | asist. M. Poškutė             | 353          | MF1        | Lecture, seminar |  |
|          | 11 | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 12 | II  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 363          | MF1        | Lecture, seminar |  |
|          | 13 | III | 9  | 15 Science Forum: Bioethics issues in system biology   | asist. M. Poškutė             | 363          | MF1        | Lecture, seminar |  |
|          |    |     | 15 | 19 Systems biology: project                            | Mentors                       |              | Teams live | Seminar          |  |
|          | 14 | IV  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 363          | MF1        | Lecture, seminar |  |
|          | 15 | V   | 15 | 19 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture          |  |
|          | 18 | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 19 | II  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 363          | MF1        | Lecture, seminar |  |
|          | 20 | III | 13 | 19 Science forum: Journal club                         | prof. A. Jakaitienė           | 363          | MF1        |                  |  |
|          | 21 | IV  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 363          | MF1        | Lecture, seminar |  |
|          | 22 | V   | 15 | 19 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 25 | I   |    |                                                        |                               |              |            |                  |  |
|          | 26 | II  |    |                                                        |                               |              |            |                  |  |
|          | 27 | III |    |                                                        |                               |              |            |                  |  |
|          | 28 | IV  |    |                                                        |                               |              |            |                  |  |
|          | 29 | V   |    |                                                        |                               |              |            |                  |  |
|          | 1  | I   |    |                                                        |                               |              |            |                  |  |
|          | 2  | II  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 231          | MF1        | Lecture, seminar |  |
|          | 3  | III | 10 | 14 Science forum: Reproducible computational research  | prof. S. Gražulis             | MS Teams/VLE | LSC        | Lecture          |  |
|          | 4  | IV  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 231          | MF1        | Lecture, seminar |  |
|          | 5  | V   | 15 | 19 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture          |  |
|          | 8  | I   | 16 | 20 Proteomics                                          | Prof. M. Valius               | TBA          | LSC        | Lecture, seminar |  |
|          | 9  | II  | 9  | 13 Neurogenetics                                       | prof. A. Utkus                | 231          | MF1        | Lecture, seminar |  |

|         |    |     |       |                                                       |                   |              |     |                      |
|---------|----|-----|-------|-------------------------------------------------------|-------------------|--------------|-----|----------------------|
| January | 10 | III | 10    | 14 Science forum: Reproducible computational research | prof. S. Gražulis | MS Teams/VLE | LSC | Seminar              |
|         | 11 | IV  | 9     | 13 Neurogenetics                                      | prof. A. Utkus    | 231          | MF1 | Lecture, seminar     |
|         | 12 | V   | 16    | 20 Proteomics                                         | Prof. M. Valius   | TBA          | LSC | Lecture, seminar     |
|         | 15 | I   | 16    | 20 Proteomics                                         | Prof. M. Valius   | TBA          | LSC | Exam                 |
|         | 16 | II  | 9     | 13 Neurogenetics                                      | prof. A. Utkus    | 231          | MF1 | Lecture, seminar     |
|         | 17 | III | 10    | 14 Science forum: Reproducible computational research | prof. S. Gražulis | MS Teams/VLE | LSC | Seminar              |
|         | 18 | IV  | 9     | 13 Neurogenetics                                      | prof. A. Utkus    | 231          | MF1 | Exam                 |
|         | 19 | V   |       |                                                       |                   |              |     |                      |
|         | 22 | I   | 13.00 | 19.00 Systems biology: project                        | K. Šablauskas     | 231          | MF1 | Project presentation |
|         |    |     |       |                                                       |                   |              |     |                      |

#### Abbreviations

|      |                                                          |
|------|----------------------------------------------------------|
| LSC  | Life sciences center, Saulėtekio str. 9                  |
| MIF  | Faculty of Mathematics and Informatics, Šaltinių str. 1A |
| MIF2 | MIF Didlaukio 47                                         |
| MF1  | Faculty of Medicine, Čiurlionio str. 21/27               |
| MF2  | Faculty of Medicine, Santariškių str. 2                  |
| TBA  | to be agreed                                             |

#### Courses

##### Neurobiology

Neurobiology  
Neurogenetics

##### Proteomics

##### Mathematical physiology

##### Systems biology

1. Object of Systems biology A. Jakaitienė, K. Šablauskas
  2. Discovering Quantitative Trait Loci E. Siavrienė or invited lecturer
  3. Metabolomic pathways and Pathway E Invited lecturer
  4. Deep Learning in Computational Bi Linas Petkevičius, K. Šablauskas
  5. Synthetic Biology K. Šablauskas
- Systems biology: project

##### Science forum

Science Forum: Bioethics issues in system prof. E. Gefenas  
Science forum: Behavioral pharmacology Prof. V. Vengeliienė  
Science forum: Reproducible computation S. Gražulis  
Science forum: Journal club A. Jakaitienė