**Thematic overview Master courses for MLS**

This is an overview of courses available for the programme in Molecular Life Sciences. *Italic marked courses* are generally suited to fulfill the molecular component required with a number of internships. These courses do not demand in depth chemical background. Other molecular courses (MOL or SM-code) also fulfill the requirement but will not be feasible for all students.

Please be aware that not all master courses are given every year!
You can check course descriptions by copying the course name or course code into the course finder module at the bottom of the page.

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| **Life science courses** |  |  |  |  |
| **Course name** | **Code** | **EC** | **Period** | **Schedule** |
| Trends in Stem Cell Biology 1,2,3 | BM073 | 3 | Sept 4 - Nov 10 | We |
| Epigenomics in health and disease  1 | BM062 | 3 | Sept 4 - Oct. 6 | Mo + Tue |
| *Transport and Metabolomics 2* | *MOL413* | *3* | *Sept 4 - Oct. 6* | *Mo + Tue* |
| Systems neuroscience 3 | BM044B | 3 | Sept 4 - Oct. 6 | Mo + Tue |
| Computational Epigenomics  1 | BM066A | 6 | Sept 4 - Nov 10 | Thur +Fri |
| Clinical Genomics 2 | BM072 | 6 | Sept 4 - Nov 10 | Thur +Fri |
| Molecular and cellular neurobiology 3 | BM001D | 6 | Sept 4 - Nov 10 | Thur +Fri |
| *Protein dynamics and networks 1* | *BM064* | *3* | *Oct 9 - Nov 10* | *Mo + Tue* |
| Molecular Therapy 2 | BM071 | 3 | Oct 9 - Nov 10 | Mo + Tue |
| Behavioural neuroscience 3 | BM053B | 3 | Oct 9 - Nov 10 | Mo + Tue |
| Methods in neuroscience  | NM103 | 3 | Nov 13 – Feb 2 | Thur |
| *Apoptosis* | *BM004C* | *3* | *Nov. 11 - Jan. 27* | *Fri* |
| Oncology | BM015C | 3 | Nov. 11 - Jan. 27 | Fri |
| Systematic reviews in neuroscience (ipv scriptie) | BM059 | 6 | Feb 5 – Jul 6 |  |
| Cellular Imaging in four Dimensions | BM016C | 3 | Feb 5 – Apr 13 | Fri |
| Neurogenomics of speech, language and reading disorders | BM061 | 3 | Feb 5 – Apr 13 | Fri |
| *Principles of Systems Biology* | *BM041B* | *3* | *Feb 5 – Apr 13* | *Fri* |
| *Molecular aspects of host defense, tissue destruction and repair* | *LM012* | *3* | *Probably not in 1718* | *Fri* |
| Advanced Endocrinology | BM032C | 3 | Apr 16 – Jul 6 | Fri |
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1 course is part of Medical Epigenomics specialisation
2 course is part of Human biology specialisation
3 course is part of Neuroscience specialisation

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| ***Non-life science courses*** |  |  |  |  |
| **Course name** | **Code** | **EC** | **Period** | **Schedule** |
| *Systems chemistry\** | *MOL402* | *3* | *Sept 4 - Oct. 6* | *Mo + Tue* |
| *Omics\** | *MOL410* | *3* | *Sept 4 - Nov 10* | *We* |
| Organic chemistry of biomolecules\* | MOL403 | 3 | Sept 4 - Nov 10 | Thur  |
| *Chemical biology\** | *MOL401* | *3* | *Sept 4 - Nov 10* | *Fri* |
| Instrumental analysis in (bio)molecular chemistry\* | MOL404 | 3 | Oct 9 - Nov 10 | Mo + Tue |
|  |  |  |  |  |
| Materials science | MOL407 | 3 | 1st quarter |  |
| Physical chemistry of molecular aggregates | MOL408 | 3 | 1st quarter |  |
| Molecular Modeling | MOL406 | 3 | 1st quarter |  |
| Advanced spectroscopy | MOL409 | 6 | 1st semester |  |
| Advanced Organic Synthesis | SM302 | 3 | 1st quarter | Fri |
| Quantum chemistry | SM297 | 3 | 2nd quarter |  |
| Polymer chemistry | SM019A | 3 | 1st quarter | We |
| Molecular materials | SM292A | 3 | 1st quarter | Thur |
| Pattern Recognition for the Natural Sciences | SM299 | 3 | 2nd quarter |  |
| Application of Metal-catalysis in natural Product Synthesis | SM018A | 3 | 2nd quarter (Every other year) |  |
| Physical organic chemistry of the cell | SM296 | 3 | 2nd quarter |  |
| Magnetic Resonance II | SM023D | 6 | 2nd  and 3rd quarter |  |
| Chemometrics II | SM103A | 3 | Contact lecturer |  |
| Inleiding Java voor bioinformatici | CMBI110A | 6 | 3rd quarter |  |
| Advanced crystallography | SM155 | 3 | 3rd quarter |  |
| Advanced molecular structure determination | SM026A | 3 | 3rd quarter |  |
| Bioinformatics of protein structure | CMBI103B | 6 | 3rd quarter |  |
| Chemical discovery & design | CMBI101B | 3 | 4th quarter |  |
| Quantum dynamics | SM295 | 4 | 4th quarter |  |
| Magnetic Resonance IIIa, Solid-state NMR | SM044A | 3 | 4th quarter |  |

\* course is part of Specialisation Chemistry for Life

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| ***Master course in Environmental Sciences*** |  |  |  |
| **Name course** | **Code** | **EC** | **Period** |
| Risk Management of Chemicals | MM014 | 3 | 2nd quarter |
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| ***Free electives - Research related*** |  |  |  |
| **Name course** | **Code** | **EC** | **Period** |
| Working with Radionuclides level 5B 1 | BM007C | 2 | several times 1 week |
| Course on Laboratory Animal Science 2 | BM024D | 3 | several times |
| Study tour Chemistry and Molecular Life Sciences | SM300A | 3 | 4th quarter |
|  |  |  |  |
| ***Free electives - Non-research*** |  |  |  |
| **Name course** | **Code** | **EC** | **Period** |
| Beroepsorientatie (in Dutch) | FNWI001 | 3 | 1st,  3rd and 4th quarter |
| Project management (in Dutch) | FMT015B | 3 | 2nd and 4th quarter |
| Scientific English for Masterstudents (limited number of participants) | FNWI002 | 3 | 1st,  3rd and 4th quarter |

1 Enrolling: See prospectus
2 Prerequisites and application: See prospectus