

Medical Programme

330 credits

Läkarprogrammet

MALA2

Valid from: 2020 Autumn semester

Determined by

The Faculty Board at the Faculty of
Health Sciences

Date determined

2016-01-28

Revision date

2018-05-08

Purpose

The programme leads to a Degree of Master of Science in Medicine and its purpose is to prepare students for their initial years of professional practice as doctors employed within the Swedish healthcare system. The programme also prepares students to continue their education in the third cycle.

Aim

General objectives

Chapter one of the Higher Education Act (SFS 1992:1434 including updates) have adopted the following general objectives for the first and second cycle respectively:

8 § Undergraduate level education should be primarily based on knowledge students receive from national programmes at upper-secondary school level or equivalent. However, the government may decide on exemptions relating to the fine, applied, and performing arts.

First-cycle programmes and courses will develop students'

- abilities to make independent and critical assessments,
- abilities to independently identify, formulate and solve problems,
- preparedness to meet changes in working life

Within the specific field of education, the students will, in addition to their knowledge and skills, develop the abilities to:

- seek out and evaluate knowledge at a scientific level,
- follow the development of the field,
- exchange knowledge also with people without specialized knowledge in the field

9 § Second-cycle programmes and courses should be primarily based on knowledge students receive from first-cycle studies or equivalent.

Second-cycle programmes and courses will include progression of knowledge, skills and abilities in relation to those acquired from first-cycle studies and will in addition to what applies to first-cycle programmes and courses:

- further develop the students' abilities to independently integrate and use their knowledge,
- develop the students abilities to handle complex phenomena, queries and situations,
- develop the students preparedness for professional activities which place extensive demands on independence or for work within research and quality improvement

Degree objectives

In accordance with the Higher Education Ordinance (SFS 1993:100 with updates), Appendix 2 - System of Qualifications:

For a Degree of Master of Science in Medicine, the student shall demonstrate the knowledge and ability required in order to practice as a doctor and in order to complete the internship (*allmäntjänstgöring*; AT) required in order to qualify as a doctor.

Knowledge and understanding

For a Degree of Master of Science in Medicine, the student will be able to:

- demonstrate their knowledge of the disciplinary foundation of the field of study, insight into current research and development work and knowledge of the relationship between research findings and proven experience and the significance of this relationship to professional practice,
- demonstrate both the breadth and the depth of their knowledge in the field of medicine, including their knowledge and understanding of the circumstances in society that have an impact on the health of different groups and individuals, both children and adults,
- demonstrate their knowledge of those aspects of economics and organisation that are of significance to healthcare,
- demonstrate their knowledge of men's violence against women and domestic violence,
- demonstrate their knowledge of relevant statutes.

Skills and abilities

For a Degree of Master of Science in Medicine, the student will be able to:

- demonstrate their specialist ability to independently diagnose the most common diseases in patients and to treat these in cooperation with the patient,
- demonstrate their ability to initiate and conduct health promotion and prevention within the healthcare system for both individuals and groups of patients.
- demonstrate their ability to critically and systematically integrate and use knowledge, and to analyse and assess complex phenomena, questions and situations,
- demonstrate their specialist ability to inform and teach a variety of groups, and to undertake supervisory duties,
- demonstrate their ability to work as part of a team and with other professions within both the healthcare system and the health and social care sector,
- demonstrate their ability to describe measures and treatment results verbally and in writing with those concerned and to document these in accordance with relevant statutes,
- demonstrate their specialist ability to discuss on the basis of scientific evidence new facts, phenomena and questions within the field of medicine with different groups and to critically appraise, assess and use relevant

information,

- demonstrate their specialist ability to initiate, participate in and conduct improvement efforts and to evaluate medical treatment activities.

Judgement and attitude

For a Degree of Master of Science in Medicine, the student will be able to:

- demonstrate their self-knowledge and ability to empathise,
- demonstrate their ability to adopt a comprehensive view of the patient on the basis of a scientific and humanitarian perspective, paying particular attention to human rights,
- demonstrate their ability to adopt an ethical and professional attitude in contact with patients and their relatives,
- demonstrate their ability to identify their requirements for additional learning and to continually develop their expertise.

Besides the objectives above, the students will after completing the programme, have obtained the higher institution's local objectives as well as the local objectives of the programme.

Local objectives for the Faculty of Medicine and Health Sciences

Having completed the programme, the student will:

- have the ability to critically appraise situations within healthcare in order to motivate and evaluate choice of actions as a working professional
- demonstrate knowledge about and understanding of factors which affect health from a local and global perspective
- have the ability to evaluate and apply knowledge in evidence-based medicine and quality improvement in healthcare
- be able to work for a sustainable and health promoting development of current and future generations
- have obtained inter-professional skills that enables working in teams with other professions
- demonstrate knowledge and understanding of the importance of equality and equal opportunities in society

Local objectives for the Medical Programme

Having completed the programme, the student shall have the ability to participate in research and development work within the field of medicine.

Content

The programme is organised into eight themes that integrate the subjects they encompass, the content of which recurs with increasing degrees of complexity. Theoretical and practical elements alternate throughout the entire programme. The themes that integrate the subjects they encompass are:

- Professional development

- A scientific approach
- Generalist
- Gastro-Nutrition-Metabolism
- Endocrine-Reproduction-The life cycle
- Circulation-Respiration-Erythron-Kidneys
- Immune-Barrier-Infection
- Neuro-Senses-Psyche-Movement

The following courses are included in the programme:

The Professional Physician and Biological Function, 30 credits (semester 1)
Läkarrollen och biologisk funktion, 30 högskolepoäng (termin 1)

The principal content of this course is professional development, searching for medical information, general cell biology, metabolism, the digestive organs, embryology, the endocrine organs and the reproductive organs. It also includes the interprofessional element "Professionalism in the Healthcare System and Social Services".

Biological Function, 30 credits (semester 2)
Biologisk funktion, 30 högskolepoäng (termin 2)

The principal content of this course is the circulatory organs, the blood, the respiratory organs, the kidney and the urinary tract, the body's barrier functions, microbiology, the nervous system, the sensory organs, the musculoskeletal system and professional development.

Health and Disease 1, 30 credits (semester 3)
Hälsa och sjukdom 1, 30 högskolepoäng (termin 3)

The principal content of this course is general pathology, general pharmacology, introduction to diagnostic methods, health problems and healthcare needs, equal health, disease prevention and health promotion, professional development, as well as pathological conditions and principles of diagnosis and treatment within the circulatory organs, the blood, the respiratory organs, the kidneys and the urinary tract.

Health and Disease 2, 30 credits (semester 4)
Hälsa och sjukdom 2, 30 högskolepoäng (termin 4)

The principal content of this course is professional development, infection, pathological conditions and principals of diagnosis and treatment within the immune system, skin, digestive organs, metabolism, reproductive organs and the endocrine system.

Health and Disease 3, 30 credits (semester 5)
Hälsa och sjukdom 3, 30 högskolepoäng (termin 5)

The principal content of this course is pathological conditions and principals of diagnosis and treatment within the nervous system, sensory organs and the musculoskeletal system. Also included are medical law, the organisation of healthcare, health economics, statistics and epidemiological methodology, evidence-based medicine, diagnostic methods and clinical propaedeutics.

Clinical Medicine 1, 30 credits (semester 6)
Klinisk medicin 1, 30 högskolepoäng (termin 6)

The principal content of this course is theoretical specialisation, practical specialisation and placements within internal medicine, primary care and diagnostic specialities.

Clinical Medicine 2, 30 credits (semester 7)
Klinisk medicin 2, 30 högskolepoäng (termin 7)

The principal content of this course is theoretical specialisation, practical specialisation and placements within surgery, orthopaedics, anaesthetics and intensive care and oncology.

Degree Project in Medicine, 30 credits (semester 8)
Självständigt arbete (examensarbete) i medicin, 30 högskolepoäng (termin 8)
The course encompasses a degree project in medical science.

Clinical Medicine 3, 30 credits (semester 9)
Klinisk medicin 3, 30 högskolepoäng (termin 9)

The principal content of this course is theoretical specialisation, practical specialisation and placements within psychiatry, neurology, otorhinolaryngology and ophthalmology. The course also includes clinical pharmacology, professional development and the interprofessional element "Professional Perspective in Collaboration".

Clinical Medicine 4, 30 credits (semester 10)
Klinisk medicin 4, 30 högskolepoäng (termin 10)

The principal content of this course is theoretical specialisation, practical specialisation and placements within obstetrics and gynaecology, paediatrics, infection medicine and dermatology and sexually transmitted diseases. The course also includes an elective element.

Clinical Medicine 5, 30 credits (semester 11)
Klinisk medicin 5, 30 högskolepoäng (termin 11)

The principal content of this course is theoretical specialisation, practical specialisation and placements within emergency medicine, gerontology and domiciliary healthcare, and primary care. The course also includes the interprofessional element "Quality and Learning in Working Life".

Specialisations

The specialised study in the programme is indicated by the intended learning outcomes in the syllabus for each of the courses in the programme and by the suggested course literature in the reading lists.

Teaching and working methods

Student centred and problem based learning make up the foundation of the teaching at the Faculty of Medicine and Health Sciences. The student takes responsibility for, studies and researches current content of the courses and study programme. The methods of the course work challenge the students to independently formulate questions for learning, to seek out knowledge and assess and evaluate achieved knowledge in dialogue with others. Students work together in groups based on reality based situations to develop their own learning, contribute to co-students' learning and to practice cooperation. The teacher's role is to support the students in this way of learning. The programmes consist of subject integrated themes, theoretical and practical modules integrated throughout the study programme. The study programmes at the Faculty of Medicine and Health Sciences cooperate in certain integration modules where inter-professional learning takes place through the participation of students from several professions learning with, about and from each other. The course methods and integration modules stimulate and support the student's development of professional and inter-professional competencies as well as prepare the student for teamwork and cooperation in the future profession.

Entry requirements

General entry requirements for undergraduate studies
and
Biology 2, Physics 2, Chemistry 2, Mathematics 4
or
Biology B, Physics B, Chemistry B, Mathematics D

Threshold requirements

Each course's content builds on that of others and they must be completed in order.

Entry to the course Biological Function (semester 2) requires a pass in the elements professionalism in healthcare and social services, the basic group work and the elements The Professional Physician and The Art of Conversation that are included in the course The Professional Physician and Biological Function (semester 1).

Entry to the course Health and Disease 1 (semester 3) requires a pass in the course The Professional Physician and Biological Function (semester 1) and a pass in the elements basic group work, The Professional Physician and The Art of Conversation that are included in the course Biological Function 2 (semester 2).

Entry to the course Health and Disease 2 (semester 4) requires a pass in the course Biological Function 2 (semester 2) and a pass in the elements basic group work, The Professional Physician and The Art of Conversation that are included in the course Health and Disease 1 (semester 3). In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Health and Disease 3 (semester 5) requires a pass in the course Health and Disease 1 (semester 3) and a pass in the elements basic group work, The Professional Physician and The Art of Conversation that are included in the course Health and Disease 2 (semester 4). In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Clinical Medicine 1 (semester 6) requires a pass in the course Health and Disease 2 (semester 4) and a pass in the basic group work and the written assignments in the course Health and Disease 3 (semester 5). In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Clinical Medicine 2 (semester 7) requires a pass in the course Health and Disease 3 (semester 5) and a pass in the compulsory elements of the course Clinical Medicine 1 (semester 6). In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Degree Project in Medicine (semester 8) requires a pass in the course Clinical Medicine 1 (semester 6) and a pass in the compulsory elements of the course Clinical Medicine 2 (semester 7). In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Clinical Medicine 3 (semester 9) requires a pass in the course Clinical Medicine 2 (semester 7) and a pass in the mid-way follow-up in the course Degree Project in Medicine. In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Clinical Medicine 4 (semester 10) requires a pass in the course Degree Project in Medicine (semester 8) and a pass in the compulsory elements of the course Clinical Medicine 3 (semester 9). In addition, the entry requirements to the preceding courses as per above must be met.

Entry to the course Clinical Medicine 5 (semester 11) requires a pass in the course Clinical Medicine 3 (semester 9) and a pass in the compulsory elements of the course Clinical Medicine 4 (semester 10). In addition, the entry requirements to the preceding courses as per above must be met.

Degree thesis

For a Degree of Master of Science in Medicine, the student shall have completed within the scope of the course requirements a degree project worth at least 30 credits.

Degree requirements

A Degree of Master of Science in Medicine is achieved once the student has completed course requirements worth 330 credits.

Degree in Swedish

Efter fullbordat program om 330 högskolepoäng utfärdas på begäran av studenten ett examensbevis med benämningen Läkarexamen.

Degree in English

Following completion of a programme worth 330 credits, a degree certificate with the title Degree of Master of Science in Medicine is issued to the student upon request.

Specific information

The first five courses in the programme are delivered primarily in Linköping. Some elements, especially placements, may take place in other locations, which may entail costs to students.

Allocation of the principal study venue for the programme's six final courses take place during the course Health and Disease 2 (semester 4). The principal study venue for these courses is one of the following: Jönköping, Kalmar, Linköping or Norrköping.

Students who do not intend to complete the programme can end their studies following the course Clinical Medicine 1 (semester 6) with a Degree of Bachelor of Science in Medicine (*Kandidatexamen i medicin*), including a degree project worth 15 credits. An individual study plan for the course Clinical Medicine 1 can be drawn up in such cases.

Some courses/elements may be conducted in English. Otherwise, the language of instruction is Swedish.

Internationalisation

It is possible to conduct all or part of a course at a foreign university in the semesters listed.

Thanks to partnerships with higher education institutions outside of Sweden, there may be foreign students and/or teachers on the programme.

Common rules

Directions regarding deferment, leave from studies, returning to study, transferring of credits etc are referred to the Linköping University regulations and to the Faculty of Medicine and Health Sciences Board regulations.

Transition rules

1. This programme syllabus enters into force on 29 August 2016 and applies to students who are admitted to the programme from 1 July 2016. From 1 July 2021, the programme syllabus also applies to students admitted prior to 1 July 2016.
2. Courses in accordance with the programme syllabus that was adopted on 1 July 2007 are being gradually phased out from spring semester 2016. This means that a course in semester 1 is taught for the final time in spring semester 2016, a course in semester 2 is taught for the final time in autumn semester 2016 and so forth. A course in semester 11 is thus taught for the final time in spring semester 2021.
3. Students who were admitted to the programme prior to 1 July 2016 are entitled to sit retakes under the previous programme syllabus on three occasions within/in connection to the two semesters subsequent to that in which each course is taught for the final time.
4. The programme coordinator makes decisions concerning individual study plans and examination formats for students who were admitted under and have adhered to the previous programme syllabus and have, due to approved leave from studies or some other reason, not completed their studies no later than 30 June 2021.

Curriculum

Semester 1 (Autumn 2020)

Course code	Course name	Credits	Level	Weeks	ECV
8LAG11	The Professional Physician and Biological Function	30.0	G1X	v202035-202102	C

Semester 2 (Spring 2021)

Course code	Course name	Credits	Level	Weeks	ECV
8LAG21	Biological Function	30.0	G1X	v202104-202123	C

Semester 3 (Autumn 2021)

Course code	Course name	Credits	Level	Weeks	ECV
8LAG31	Health and Disease 1	30.0	G2X	v202135-202202	C

Semester 4 (Spring 2022)

Course code	Course name	Credits	Level	Weeks	ECV
8LAG42	Health and Disease 2	30	G2X	v202204-202223	C

Semester 5 (Autumn 2022)

Course code	Course name	Credits	Level	Weeks	ECV
8LAG52	Health and Disease 3	30	G2X	v202235-202302	C

Semester 6 (Spring 2023)

Course code	Course name	Credits	Level	Weeks	ECV
8LAG62	Clinical Medicine 1	30	G2X	v202304-202323	C
8LAG62	Clinical Medicine 1	30	G2X	v202304-202323	C
8LAG62	Clinical Medicine 1	30	G2X	v202304-202323	C
8LAG62	Clinical Medicine 1	30	G2X	v202304-202323	C

Semester 7 (Autumn 2023)

Course code	Course name	Credits	Level	Weeks	ECV
8LAA70	Clinical Medicine 2	30	A1X	v202334-202402	C
8LAA70	Clinical Medicine 2	30	A1X	v202334-202402	C
8LAA70	Clinical Medicine 2	30	A1X	v202334-202402	C
8LAA70	Clinical Medicine 2	30	A1X	v202334-202402	C

Semester 8 (Spring 2024)

Course code	Course name	Credits	Level	Weeks	ECV
8LAA08	Degree Project in Medicine	30.0	A1X	v202404-202423	C
8LAA08	Degree Project in Medicine	30.0	A1X	v202404-202423	C
8LAA08	Degree Project in Medicine	30.0	A1X	v202404-202423	C
8LAA08	Degree Project in Medicine	30.0	A1X	v202404-202423	C

Semester 9 (Autumn 2024)

Course code	Course name	Credits	Level	Weeks	ECV
8LAA09	Clinical Medicine 3	30.0	A1X	v202434-202502	
8LAA09	Clinical Medicine 3	30.0	A1X	v202434-202502	
8LAA09	Clinical Medicine 3	30.0	A1X	v202434-202502	
8LAA09	Clinical Medicine 3	30.0	A1X	v202434-202502	

Semester 10 (Spring 2025)

Course code	Course name	Credits	Level	Weeks	ECV
8LAA10	Clinical Medicine 4	30	A1F	v202504-202523	C
8LAA10	Clinical Medicine 4	30	A1F	v202504-202523	C
8LAA10	Clinical Medicine 4	30	A1F	v202504-202523	C
8LAA10	Clinical Medicine 4	30	A1F	v202504-202523	C

Semester 11 (Autumn 2025)

Course code	Course name	Credits	Level	Weeks	ECV
8LAA11	Clinical Medicine 5	30	A1X	v202534-202602	C
8LAA11	Clinical Medicine 5	30	A1X	v202534-202602	C
8LAA11	Clinical Medicine 5	30	A1X	v202534-202602	C
8LAA11	Clinical Medicine 5	30	A1X	v202534-202602	C

ECV = Elective / Compulsory / Voluntary

*Kursen läses över flera terminer