

Course syllabus – Draft

Semester 11 – Elective advanced and broadening course, 7.5 credits

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General information

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| Course code | 2LA200 |
| Course name | Precision medicine within immune-mediated diseases |
| Credits | 7.5 credits |
| Form of education | Higher education, study regulation of 2007 |
| Main field of study | Medicine |
| Level | AV – Second cycle |
| Grading scale | Fail (U) or Pass (G) |
| Department responsible | Department of Medicine, Solna (MedS) |
| Deciding body | Programme Committee for the Medical Programme |

Specific entry requirements

A passing grade in semesters 1–10 is required.

A student who has failed workplace-based learning (VFU) or equivalent due to serious deficiencies in knowledge, skills, or professional conduct that have jeopardized patient safety or public trust in healthcare is eligible for a new VFU/VIL opportunity only once the individual action plan has been completed.

Aims

The overall aim of the course is for the student to train the professional role of a physician within healthcare teams. Based on previous courses in the medical programme, the student shall broaden and deepen clinical competence in clinical medicine with a focus on precision medicine within immune-mediated diseases. The student is expected to achieve a higher level of independence in skills of importance for the physician profession.

Learning outcomes

The learning outcomes are aligned with the national learning objectives for the medical degree as stated in the Swedish Higher Education Ordinance (SFS 1993:100). Learning outcomes related to knowledge and understanding are categorized according to the SOLO taxonomy (S2–S5), and learning outcomes related to skills and abilities are categorized according to Miller's pyramid (M3–M4).

Knowledge and understanding

- Recognize, describe, diagnose, and reason around treating principles for common acute and chronic inflammatory and immune-mediated diseases (S3)

- Describe less common inflammatory and immune-mediated diseases (S2)
- Describe and theorize principles of precision medicine within inflammatory and immune-mediated diseases (S4)
- Describe and explain indications and contraindications for joint aspiration and intra-articular steroid injection (S4)

Skills and abilities

- Independently obtain an adequate medical history for common acute and chronic inflammatory and immune-mediated diseases, perform relevant physical examination (including full musculoskeletal examination), prioritize a working diagnosis, establish an initial diagnostic plan, and initiate treatment (M3; EPA 1–4)
- Identify the need for and propose preventive measures (primary or secondary prevention) (M3; EPA 5)
- Perform joint aspiration for synovial fluid analysis and intra-articular steroid injection (M4; EPA 6)
- Collaborate with other professions, healthcare services, municipalities, and authorities (M4; EPA 9)
- Contribute to a culture of patient safety (M4; EPA 10)

Approach and professional conduct

- Interact with patients, next of kin, fellow students, teachers, and healthcare staff in a respectful, empathetic, and professional manner

Course content

The course comprises four consecutive weeks of workplace-based learning (VFU/VIL) and one week of theoretical framing. Parts of VFU/VIL may include simulation in a clinical environment (virtual clinic) via an AI-assisted social robotic platform with AI-generated feedback and teacher-led seminars. Skills training is conducted partly as composite clinical activities (SKA) aligned with the nationally agreed EPA framework.

Teaching and learning activities

Clinical service within healthcare teams under supervision with feedback is the primary activity. The course also includes team-based learning (TBL) modules, case-based seminars, and a critical incident analysis (CIA).

Examination

Compulsory course components

Compulsory participation

- course introduction
- workplace-based learning (VFU)/workplace-integrated learning (VIL)
- teacher-led skills training

Compulsory formative assessments

- EPA and/or SKA (composite clinical activities) – at least weekly
- teacher-led medication prescribing and medication reports

Examination components

- oral examination based on presentation of a patient case identified during VFU/VIL
- written examination (literature-based case report)
- assessment during VFU/VIL** of EPAs/SKAs: observed level of independence in relation to the defined performance level for each skills-based learning outcome
- assessment of professional conduct***

** Examination during VFU consists of a summative assessment based on repeated formative assessment material from VFU. The material comprises multiple formative assessments supported by, among other things, assessment tools for level of independence in performing specified EPAs.

*** Learning outcomes related to professional conduct are assessed continuously based on assessment criteria, in all contexts where the student acts in the role of a student or in activities related to the university or healthcare services, including communication and digital media. In the event of insufficient achievement of learning outcomes, the examiner may fail the student in VFU. In such cases, an individual action plan shall be established.

For assessment of professional conduct during VFU, the student is entitled to two examination opportunities. Re-examination requires that the student retake the entire course, in accordance with the established action plan.

Active participation in compulsory course components constitutes a central part of the course examination. The examiner decides whether and how absence from compulsory components may be compensated. Until the student has participated in compulsory components or compensated for absence in accordance with the examiner's instructions, course results cannot be reported.

The examiner may immediately terminate a student's workplace-based learning (VFU) or equivalent if the student demonstrates such serious deficiencies in knowledge, skills, or professional conduct that patient safety or public trust in healthcare is jeopardized. In such cases, the student fails the relevant component and one VFU opportunity is considered used. An individual action plan shall then be established.

If special grounds exist, or if adaptations are required for students with disabilities, the examiner may decide to deviate from the course syllabus regulations regarding examination format, number of examination opportunities, opportunities for completion, or exemption from compulsory components. The course content, learning outcomes, and required level of knowledge, skills, and abilities may not be changed, removed, or reduced.

Additional provisions

Language of instruction: Swedish; teaching and literature in English may occur.

Course evaluation is conducted in accordance with Karolinska Institutet's guidelines.

Recommended literature and other learning resources

Relevant scientific articles within the field and local clinical guidelines.

SKA (Composite Clinical Activity) is a concept developed to operationalize EPA assessments in clinical practice.