

G2020

Assessment Plan for the 2021-2022 Academic Year

**Bachelor's degree programme in Medicine
University of Groningen
University Medical Center Groningen**

**Part 1B
Year 3**

**Part 1C
Pre-Master's programme in Medicine**

Assessment Plan for the 2021-2022 Academic Year

Part 1B

Year 3

G2020 Bachelor's degree programme in Medicine

1. Learning outcomes and curriculum components of year 3

The G2020 Bachelor's degree programme in Medicine involves course units that focus on medical knowledge as well as course units that focus on competency development.

The learning outcomes for the first stage of medical training in the Netherlands were established by the eight medical faculties in the Netherlands and are defined in the 2020 Framework for Undergraduate Medical Education in the Netherlands (Raamplan Arts Opleiding 2020).

The graduating Bachelor's students' final qualifications are formulated as competencies in various competency domains, based on the CanMEDS framework. The Framework uses the following definition of the term competency: 'A competency is the capability that can be developed – and includes an integrated totality – of knowledge, insight, skills, values and attitudes, to be able to perform professional activities in an authentic context in an adequate, reasoned, process-oriented and result-oriented manner.'

In the G2020 Bachelor's degree programme in Medicine, the following competency domains are used, derived from the competencies from the 2020 Framework:

1. Medical expertise (MED)
2. Communication (COM)
3. Collaboration (COL)
4. Scholarship (SCH)
5. Leadership (LEA)
6. Health advocacy (HEA)
7. Professionalism (PROF)

A competency domain comprises a general description of the competency, followed by several subcompetencies. These subcompetencies act as a 'speck on the horizon' and describe the end point of a development over the three years of the Bachelor's degree programme. The Bachelor's degree programme's subcompetencies for competency development are based on and derived from those of the G2020 Master's degree programme and formulated for the Bachelor's attainment level without any intermediate levels.

The third year of the G2020 Bachelor's degree programme in Medicine comprises five course units (Figure 3):

- Causes of Diseases 3.1 (18 ECTS credit points)
- Causes of Diseases 3.2 (8 ECTS credit points)
- Competency Development LC 3.1 (10 ECTS credit points)
- Bachelor's project course unit (20 ECTS credit points)
- Knowledge Development (4 ECTS credit points)

(See table 1 and Teaching and Examination Regulations 4.1a + b).

Table 1. Course units and division of ECTS in year 3

Semester 3.1	Semester 3.2
Causes of Diseases 3.1 (18 ECTS credit points)	Causes of Diseases 3.2 (8 ECTS credit points)
Competency Development 3.1 (10 ECTS credit points)	Bachelor's project course unit (20 ECTS credit points)
Knowledge Development 3 (4 ECTS credit points)	

2.1 Causes of Diseases course units

In the Causes of Diseases course units, the learning outcomes related to knowledge development will be achieved. Through these course units, students will become thoroughly aware of the

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significance of the core subjects for medical content. Over the three years, students will build up their knowledge of the core subjects. Scheduling the knowledge explicitly in the Causes of Diseases course units enables students to recognize it. The G2020 degree programme aims to teach students to use their knowledge in an integrated manner in their professional practice. Each week, the focus in the Causes of Diseases course unit is on one particular health problem.

Problems are clustered into themes that take four weeks, to prevent fragmentation and to provide structure to students. Lecturers and examiners agree on the structure of the teaching pathways in themes and semesters between themselves and, in doing so, avoid gaps in the students' knowledge development. The themes direct the content of the curriculum and are chosen in such a way as to logically link to the study material in the core subjects.

Students are expected to study all aspects of each problem: from molecular background, aetiology, pathogenesis, symptomatology and treatment to financial, ethical and public health aspects. This ensures that the core subjects are integrated well with the clinical content and are assessed that way too. Students are also expected to be able to link a problem to the Healthy Ageing knowledge pathway.

2.2 Knowledge Development course units

In the Knowledge Development course units, knowledge development is assessed by means of the Inter-Faculty Progress Test. This test is compiled together with other participating faculties. This test is described as a desirable instrument for external validation.

2.3 Competency Development course units

In the Competency Development course units, students develop the competencies as formulated for the Bachelor's degree programme. Competency development takes place within the learning Communities (LCs).

2.5 Bachelor's project course unit

The Bachelor's project adds the finishing touch to the degree programme, with students working together in a group, mentored by a supervisor, on research designed to result in an individual Bachelor's thesis (or part of one) and a joint spin-off product. Students also take the Leadership course unit, which serves as preparation for the Master's degree programme.

3 Assessment policy, assessment methods and modes of assessment

3.1 Vision on assessment

The principles of the assessment programme are based on the University of Groningen's formulated requirements for a proper assessment programme¹, in combination with recent insights on and experience with longitudinal assessment. The vision on assessment of the curriculum dovetails with the ambitions, goals and teaching methods of the degree programme. Hence, the assessment programme:

1. encourages students to actively engage with their studies and the study material (increase participation)
2. invites students to demonstrate what they are capable of and have achieved in each competency (increase autonomy and increase motivation and connection)
3. invites students to want to grow and to demonstrate this growth (increase motivation and encourage academic attitude)

¹ De toets doorstaan (Surviving the assessment): Assessment policy at the UG, revised edition policy document 2013

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4. ensures that regular feedback is given by lecturers on the students' products and competency development (condition for realizing the above expectations)
5. provides opportunities for feedback and assessment by peers (increase connection, motivation and academic attitude).

In the assessment programme, information is systematically collected on the students' functioning and achievements. Based on this information, students can be guided to enable them to eventually take a decision on their study progress. Through frequent planning of assessment stages and the use of different formats for assessment, students are encouraged to develop their competencies in an effective manner and to start – and keep – working with the study material.

The following principles underlie the assessment programme:

- focus on the development of knowledge and competencies
- provide much information from multiple sources
- regularly provide students with feedback from lecturers and peers
- students regularly reflect on their own functioning.

3.2 Knowledge assessment methods

The students' medical knowledge is assessed in the following course units:

- Causes of Diseases 3.1 (18 ECTS credit points)
- Causes of Diseases 3.2 (8 ECTS credit points)
- Knowledge Development, year 3 (4 ECTS credit points)

3.2.1 Assessment of the Causes of Diseases course units

The basic knowledge acquired from the Causes of Diseases course units is assessed by means of written examinations. Written examinations consist largely of cases, where an outline of the clinical picture will be provided. Linked to this, a series of questions will be asked in which the core subjects play a significant role.

Causes of Diseases course unit 3.1. comprises the following themes:

- Nervous system 1 and sensory organs
- Nervous system 2
- Nervous system 3
- Psychiatry 1
- Psychiatry 2

Causes of Diseases course unit 3.2. comprises the following themes:

- Emergency medicine 1
- Emergency medicine 2

Assessment format:

- The knowledge in the Causes of Diseases 3.1 and 3.2 course units is assessed in an examination that is taken at multiple assessment stages (every three to five weeks).
- The test comprises open-book and closed-book questions.
- Specific knowledge of the subjects which was acquired during an earlier phase of the partial examination, will be assessed in a cumulative assessment system
- For each week, a predetermined number of OB and CB questions are asked that are divided up among at most three examinations.

The knowledge for the Causes of Diseases 3.1 course unit is assessed in one written examination. There is a written assessment (assessment stage) following each theme (every three to five weeks), known as a partial assessment. Partial assessments comprise closed-book and open-book sections,

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with 10 open-book and 10 closed-book items each week, as a general rule. Open-book items are preferably case-related questions. The written examination for the Causes of Diseases 3.1 course unit is made up of two partial examinations comprising two and three partial assessments respectively, which account for 40% and 60% of the final mark for the course unit. The Causes of Diseases 3.2 course unit is assessed in a single written examination comprising two partial examinations.

3.2.2 Assessment of Knowledge Development course units

Knowledge is also assessed by means of the Inter-University Progress Test. This test is independent of the curriculum and is taken at the same time at five different universities in the Netherlands. In addition to information about the knowledge development of individual students compared to their fellow students, this test provides information for the comparison of the knowledge level of various student cohorts in the different degree programmes.

The procedure for the assessment of the final result is decided by the national Inter-Faculty Progress Test consultation and the Board of Examiners for Dentistry and Medicine. All participating degree programmes in Medicine use approximately the same procedure.

Test format:

- The Inter-Faculty Progress Test (Progress Test) is taken four times a year.
- It is a multiple-choice test.
- The Progress Test's final result is assessed at the end of the academic year, based on the results obtained for all four Progress Tests.
- After every test taken, students receive an assessment of their knowledge level for the relevant Progress Test.
- Students reflect on the results of their Progress Tests in the coach meeting at the end of the academic year.

3.3 Competency Development – assessment methods

Assessment of competency development and the associated learning outcomes mainly takes place through the LCs, based on LC assignments. However, learning activities held in the tutor groups in Causes of Diseases course units are also part of this assessment. Competency development is assessed in the Competency Development 3.1 course unit. Assessment takes place based on the learning outcomes for each year (Competentieontwikkeling van Bachelor studenten in G2020, April 2016), which are drawn up by the competency coordinators. This memorandum also provides the basis for the assessment frameworks for LC assignments and the assessments of competencies in the tutor groups and during the clerkships. The total of assessments of the various competencies provides sufficient information to assess whether students have achieved the competency levels laid down.

In G2020, information on the performance of students is collected at various stages. This information consists of 'low-stake' assessments, which will be recorded in the students' digital portfolio. 'Low stake' assessments are an observation of the competency level of individual students in relation to the average expected level for the relevant stage of the degree programme. This is evaluated by giving narrative feedback on the competency on which the LC assignment focuses, along with a general opinion of the student's level of the particular competency, which is assessed as 'On Track (OT)', 'Not On Track (NOT)' or 'Fast On Track (FOT)'. An individual assessment becomes relevant for the assessment of competency development when several lecturers confirm each other's observations and show a problem with the student's competence development. An assessment by an individual lecturer is therefore a low-stake assessment in the assessment process. This does not exclude low-stake assessments from having direct consequences for students if a problem is identified that is of such seriousness that it must lead to consequences. To assess

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whether students have achieved the learning outcomes laid down for each year, a series of low-stake assessments for each course unit will result in a final ('high-stake') result. Based on the final result, ECTS credit points will be awarded for each course unit.

The final mark for the Competency Development 3.1 course unit is calculated based on the following input, which is identical for all LCs:

- Assessment of performance in tutor groups 3.1a
- Assessment of performance in tutor groups 3.1b
- Assessment of assignment 3.1.1 Evidence-based medicine: Cerebrovascular accident
- Assessment of assignment 3.1.2 Communication and approach in the context of cultural diversity

This results in 12 'low-stake' (NOT-OT-FOT) assessments:

Medical expert	1
Communicator	1
Collaborator	1
Leader	2
Health advocate	1
Scholar	3
Professional	3

The final assessment is based on the following rules:

If a complete portfolio has been submitted:

- $\geq 90\%$ FOTs and no NOTs: 10
- $\geq 70\%$ FOTs and no NOTs: 9
- $\geq 40\%$ FOTs and no NOTs: 8
- $< 40\%$ FOTs and no NOTs: 7
- $\geq 20\%$ NOTs: a fail

Please note: the examiner is allowed to deviate from the rules based on their appraisal or the feedback given (see Appendix 1).

Resit:

Students receiving three or more NOTs have failed the course unit and will have to do a resit. After each fail mark, the feedback recorded in the portfolio is consulted, on the basis of which an appropriate resit is drawn up. Students with a fail mark will be invited for a meeting prior to the resit. However, this may be deemed unnecessary based on the competencies awarded with a NOT and the accompanying feedback. In that case, the student will be informed by email.

If the student passes the resit, they will receive a 6.

Incomplete portfolio

In order to receive a final result for the Competency Development 3.1. course unit, the students' portfolios must be complete. The students are timely informed of the deadline by which their portfolios must have been completed. If their portfolios are still incomplete after this date, the student will be given a fail mark for the Competency Development 3.1 course unit, unless the examiner decides otherwise.

3.4 Tutor-led teaching

Tutor-led teaching is a mandatory practical for the Causes of Diseases course units and is assessed through LC assignments for the Scholar and Professional competencies in year 3. These low-stake assessments will be included in the digital portfolio.

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Failure to comply with the University's rules on attendance can result in a negative assessment of professional conduct in the Competency Development course units. The tutor records absences and the reasons given and periodically reports absences to the Causes of Diseases examiner. In the event of insufficient attendance, a course unit director may decide to give the student a supplementary assignment or not to award the credit points for the Causes of Diseases course units. Students resitting a Causes of Diseases course unit are required to participate actively in tutor-led teaching and absence will have consequences for the award of ECTS credit points for that course unit.

3.5 Bachelor's project (table 1)

The Bachelor's Project course unit comprises four parts:

1. the Bachelor's thesis
2. the Product (description and 'pitch') as spin-off of the bachelor these
3. Study progress
4. the Leadership module.

The Bachelor's thesis contains joint 'TEAM' (i.e. abstract, introduction, methods) and individual (i.e. discussion, implications and summary) components to assess the performance of the individual student.

The student receives a **basic mark** composed of the result of the sum of 6x the mark for the bachelor thesis plus 2x the mark for the product, plus 1x the mark for the study progress divided by 9 according to the following formula:

$$\text{Basic grade} = (6x \text{ mark thesis} + 2x \text{ mark product} + 1x \text{ mark study progress})/9$$

The mark of the Thesis is determined by the supervisor of the internship (1x) and by an independent reviewer/ assessor (2x) according to the following formula.

$$\text{Thesis mark} = (1x \text{ supervisor's mark} + 2x \text{ reviewer's mark})/3.$$

The mark of this thesis is 50% made up of the assessment of the 'Team' components and 50% of the assessment of the 'individual' components.

If the marks given by the supervisor and the reviewer differ by more than 1.5 points, the examiner will reassess the thesis. This reassessment **replaces** both the supervisor's and the reviewer's mark. The mark given by the examiner is also used to calculate the basic mark according to the following formula:

$$\text{Basic mark} = 6x \text{ thesis mark examiner} + 2x \text{ product mark} + 1x \text{ study progress mark}/3.$$

The student must upload the thesis to the plagiarism scanner. The thesis reviewer will check the result of the plagiarism scan to detect copying. Any suspicion of plagiarism will be reported to the Board of Examiners for Dentistry and Medicine (ECTG).

The TEAM mark for the product is determined by the assessment of the product and its description by the supervisor (1x) and by the assessment of a video pitch by an independent assessor (1x) according to the formula:

$$\text{Product mark} = (1x \text{ supervisor} + 1x \text{ assessor})/2$$

The individual mark for the **study progress** is determined by the supervisor (1x)

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The supervisor will assess the student's **product** and **progress** simultaneously. The marks awarded to members of the Bachelor's thesis team may differ because the product is developed by the group while the students' progress will be assessed individually.

The Bachelor project concludes with the Academic Theatre (AT). During this activity, students present their product to an independent jury in a five-minute pitch, during which the students show their product and explain why this product had to be developed (relevance) and why it logically followed from the thesis (the relationship with the thesis must be explicitly addressed). At the AT, the teams of the five best pitches will once again pitch.

The breakdown of the weight percentages of the different assessments is as follows:

Part	Weight % van het BT& P mark			Distributie Individual/Team mark	
	Supervisor	Reviewer of Assessor	Total	Individual/Team	Individual % BTP mark
Thesis	22,2 %	44,4 %	66,6 %	Individual/Team	33,3 %
Product description	11,1 %		11,1 %	Team	
Product pitch		11,1 %	11,1 %	Team	
Study progress	11,1 %		11,1 %	Individual	11,1 %
	44,5 %	55,5 %	100%		44,4 %

The **Leadership module** is assessed in three different assignments. In each assignment, the student can score a NOT, OT or FOT. On average, students must obtain an OT on the total of assignments of the leadership model. The calculation of the final grade for this module is described in Table 2 .

If a student fails to comply with the deadline for any component in the Leadership module, they will be awarded an NOT for that component.

3.5.1 Bonus/malus scheme for the Bachelor's project

If the basic mark is lower than 5.0 (<5.0), the examination will be marked as a fail (**O**) and the Bachelor's thesis and product must be resat. If the basic mark is 5.0 or higher (≥ 5.0), it may be marked either up or down in accordance with the bonus/malus scheme, as follows:

1. If the Leadership tests are assessed with an average score of Fast On Track (FOT) (see Table 2), students will receive a 0.5 point bonus on their basic mark. However the restriction applies that the final grade cannot exceed 10.0
2. If the average assessment for the Leadership test is Not On Track (NOT) (see Table 2), 0.5 points will be subtracted from the basic mark.

After application of the bonus/malus scheme, the student must have a final mark of at least 5.5 (≥ 5.5) to be awarded a **pass mark (V)**. If, after application of the bonus/malus scheme, the student's final mark is lower than 5.5 (<5.5), the examination will be marked as a fail (**O**) and the student will have to resit the components assessed as a **fail**.

A Not On Track for the Leadership tests can only be remedied if the final mark is a **fail (O)**.

3.6 Responsibility for assessment policy

The programme leader is ultimately responsible for drawing up and correctly implementing the assessment policy. The programme leader draws up the assessment plan and the Teaching and Examination Regulations.

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The Board of Examiners (ECTG) is appointed by the Faculty Board and one of its responsibilities is to ensure that the assessment plan is applied and implemented correctly. The examiners are appointed by the Board of Examiners based on their expertise and experience. The ECTG establishes guidelines and instructions that describe how the examiners must implement the assessment plan.

The following specific tasks are the responsibility of the Board of Examiners:

1. Formulate and decide the way in which examinations and assessments are designed and the manner in which the cut-off point is determined
2. Appoint the correct examiners for the various components of the assessment programme
3. Determine the method used to organize regular evaluation of the assessment methods
4. Evaluate the assessment plan in relation to the realized competencies of the degree programme
5. Supervision of the assessment methods used in relation to the established assessment plan

Every academic year, the ECTG evaluates the implementation of the assessment plan and chooses the points that need attention during the next academic year. The ECTG reports annually on the results of the implementation of the assessment plan in its annual report. If necessary, the Dean will adapt the assessment plan. This allows the ECTG to ensure good quality control of assessment that is based on the assessment plan.

4 Implementation regulations for the knowledge tests assessment process

4.1 Causes of Diseases – determining the learning outcomes

The learning outcomes for the various course units are defined by the relevant examiners. The two course unit directors for the semester are the examiners for the Causes of Diseases course units and one of them is the contact person for the ECTG.

4.2 Causes of Diseases – content of the written knowledge tests

The knowledge in Causes of Diseases course units 3.1 and 3.2 is assessed in a written examination that is taken in parts (assessment stages). The two course unit directors for the semester are responsible for the composition of the written tests. Written examinations are produced according to the following general guidelines:

- The content of the questions reflects the study material well (representation)
- The content of the questions can be related to the learning outcomes (validity)
- The questions cannot be interpreted in more than one way, must contain enough information to answer the question and not lead to contradictory answers obtained from different sources (reliability)
- The examination consists of open-book and closed-book questions. The format is, in principle, multiple choice
- The distribution of the questions across the assessment stages takes place according to a predetermined cumulative system

The examiner composes the examination and submits the draft questions for the written examinations to the Examination Assessment Panel. This panel of experts comments on these draft questions and assesses whether they have been asked in an appropriate way and whether they are clear. Questions may be reformulated or rejected for a written examination if they are unclear or if they do not dovetail properly with the study material. The course unit's examiner will make the final decision about the definitive content of the examination.

4.3 Causes of Diseases – administration of the assessments

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Participation in all partial assessments in a particular semester is mandatory. The examiner will inform the students clearly about the guidelines and instructions regarding the administration of the assessment.

Students who have given notification of absence in good time by email to g2020-basic3@umcg.nl (year 3) and stated good reasons, such as illness or force majeure, may be eligible for participation in the replacement examination. The ECTG makes the decision regarding participation in the replacement examination, which is scheduled after the partial examination has finished. The grade for the replacement examination replaces the 'zero' result for the missed partial examination when calculating the final grade for the partial examination. Students who have missed more than one partial assessment for any partial examination are always referred to the resit. Students who do not send a notification of absence to the above email address, or send it too late, or who did not have a valid reason for their absence, as decided by the ECTG, are referred to the resit after the end of the academic year.

Missed partial assessments: The final mark for the Causes of Diseases course unit is calculated after the student has taken part in all partial assessments of the relevant semester. Students who have missed one partial assessment per semester for a valid reason are given the opportunity to catch up the missed partial assessment after the partial examination has finished and with permission of the ECTG (the procedure is described in the ECTG's Rules and Regulations (R&R) 2021-2022). The result of the replacement assessment is combined with the results from the other partial assessments and used to calculate the final mark for the course unit. Students who have missed more than one partial assessment are referred to the resits, which take place after the end of the academic year.

4.4 Causes of Diseases – cut-off point for written examinations

When calculating the result of the written examination, a knowledge percentage of 60% and a cut-off point established by the Cohen method with P99 applies.

The Causes of Diseases course unit 3.1 will be assessed in two partial examinations that count for 40% and 60% of the final result respectively. Students who achieve a pass mark (a mark of >5.50) will be awarded 18 ECTS credit points, provided they have passed all their practicals and taken all their partial assessments.

The Causes of Diseases course unit 3.2 is assessed in a single examination comprising two part tests. Students who achieve a pass mark (a mark ≥ 5.50) will be awarded 8 ECTS credit points, provided they have passed all their practicals and taken all their partial assessments.

After each assessment stage, students will receive individual feedback about their performance in the last assessment and an overview of the combined achievement thus far. After completing a partial examination, a definitive grade will be provided within 10 working days. A summative assessment will take place at the end of the semester. The course unit's final result will be calculated based on the grades obtained for the two partial examinations when a result is available for all partial assessments.

4.5 Causes of Diseases – determining the final results of the assessments

The examiner for the relevant course unit informs the students of their assessment results. The results of the written examinations and the grades for the partial examinations will be determined within 10 working days of the day of the examination.

4.6 Causes of Diseases – follow-up-discussion and inspection of the assessments

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Students have the opportunity to inspect their assessments. Every partial assessment is discussed afterwards with the Year Representatives (YR), in the presence of a producer (minute-taker). The examiner presents anything that may be unclear in the content to a lecturer with the relevant expertise. Decisions that are made in these meetings, including supporting arguments, will be made public by the examiner within 10 working days. The examiner and the Examination Assessment Panel will discuss the assessments with the lecturers (i.e. those who supplied the questions) at a later date. The results, and any potential decisions made by the examiner, will be discussed in this meeting.

4.7 Order of enrolment for assessments

In G2020, the principle of order of enrolment is used, which means that in cases where the final result for several course units is a fail, the first resit must be for the course unit that was taught first chronologically. This system has been chosen because knowledge builds up gradually during the programme, which makes it necessary for the earliest of the previous course units to be passed first.

4.7.1 Causes of Diseases – resits

Students will be given the opportunity to take a resit for failed partial examinations after the end of the second semester, in July or August.

4.7.2 Resits of the Progress Test

The Progress Test is taken four times a year and every Progress Test represents a resit opportunity for Progress Tests that were previously failed. Students must demonstrate sufficient knowledge growth. At the end of the academic year, and based on a combination of the results for the Progress Tests, the decision is taken as to whether the Knowledge Development course unit is awarded a pass or not. Students will not be prevented from progressing to the next year of their studies if they fail a Progress Test, provided they have earned sufficient ECTS credits. Every Progress Test in the next year of their studies offers the students further opportunities to satisfy the criteria of the Knowledge Development course unit from the previous year.

4.8 Assessment procedures for the Progress Test

The Progress Test is developed at national level.

Rules for determining individual Knowledge Development grades

1. Each Knowledge Development examination comprises at least four progress tests, combining the four most recent tests. Cut-off scores for the thresholds between fail/pass and pass/good will be determined for each assessment stage. A student's knowledge level will be assessed on the basis of these scores.
2. Students will be sent their test scores for each progress test, expressed in percentages, via Nestor and can then look up the associated knowledge level in the accompanying score table.
3. If a student's score is *below* the threshold for a 'pass' grade for the knowledge level at which the test is taken, the score will be expressed as a 'pass' for the highest level at which the score obtained results in a 'pass' grade.
4. If a student's score is *at or above* the threshold for a 'pass' grade for the knowledge level at which the test is taken, the score will be expressed as a 'pass' for the highest level at which the score obtained results in a 'pass' grade.
5. If a student's score is *at or above* the threshold for a 'good' grade for the knowledge level at which the test is taken, the score will be expressed as a 'good' for the highest level at which the score obtained results in a 'good' grade.
6. If a student's score is below the threshold for knowledge level 1, they will be awarded a fail for knowledge level -1.
7. No grades will be awarded to students who do not take a progress test or who take a progress test without being properly registered as students of the University of Groningen.

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8. Grade calculation for individual progress tests is done exclusively on the basis of the nationally approved cut-off scores for the Dutch-language progress test.

C. Rules for demonstrating consistency

1. If a student has obtained at least one pass at the fourth (highest) knowledge level of the Knowledge Development examination concerned, the student must show consistency by obtaining a pass for at least the second (third highest) knowledge level of the last progress test in the three or four tests in that Knowledge Development series, unless they obtain a pass for the fourth (highest) knowledge level of the Knowledge Development examination during the last test in the series.

D. Attendance requirements

1. Students must take at least four progress tests for each Knowledge Development examination.
2. If a student does not take a progress test, the student's score on the subsequent progress test will also be recorded as the score for the progress test missed, provided the student was correctly enrolled at the time of the test missed. This type of double-counting is allowed once for each Knowledge Development examination.
3. In the event of extraordinary personal circumstances and/or unacceptable study delay, the student can request that the ECTG devise an individual solution.

E. Application of combination tables

1. The result of a Knowledge Development examination (i.e. the combined result of four progress tests) is expressed as a mark of good (G), pass (V) or fail (O).
2. A pass (V) or good (G) for a Knowledge Development examination will only be registered once the student concerned has met the attendance requirement for the relevant Knowledge Development examination. No mark will be given if the attendance requirement is not met. If a student does not meet the consistency requirement, a fail (O) mark will be recorded.
3. The Knowledge Development B1 examination mark will be calculated on the basis of the grades earned in the three most recently taken progress tests.
4. The marks for the Knowledge Development B2 and B3 examinations will be calculated on the basis of the grades obtained in the *four* most recently taken progress tests.
5. Combination tables KPB1, KPB2 and KPB3 form the basis for calculating the marks for the Knowledge Development B1, Knowledge Development B2 and Knowledge Development B3 examinations respectively.
6. Grades obtained in the Bachelor's degree programme in Medicine cannot be used for Knowledge Development examinations in the Master's degree programme in Medicine.

F. Resits and double-counting

1. The mark earned during the resit will count when rules in articles F.2-4 are applied.
2. If a student has met the attendance requirement but failed the Knowledge Development B1 examination, the lowest grade earned will be removed from the series of grades on the four most recently taken progress tests and the mark will be recalculated based on the grades awarded in the three remaining progress tests.
3. If a student has met the attendance requirement but failed the examination, the next progress test will count as the resit opportunity for the Knowledge Development B1, B2 and/or B3 examinations. The mark will subsequently be recalculated based on the four most recently awarded grades after the resit of the Knowledge Development B2 and B3

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examinations or based on the three most recently awarded grades after the resit of the Knowledge Development B1 examination.

4. The grade for the final progress test with which the student has successfully concluded the resit will also count towards the first assessment stage in the subsequent Knowledge Development examination of the Bachelor's degree programme in Medicine.
5. Double-counting as referred to under Article F.4 cannot be applied for students who have not met the attendance requirement for the Knowledge Development examination concerned.

G. Legal protection under KPB 2021-2022

1. The Knowledge Development examiner will have the final say on the application of this protocol in individual cases, using it as a guideline. The Board of Examiners will have the final say in all requests to depart from the rules and standards in this protocol. The progress test coordinator will issue advice to the examiners and the Board of Examiners in these matters.
2. Students can lodge an administrative appeal with the Board of Appeal for Examinations (CBE) against decisions taken by the examiner or the Board of Examiners. Students are referred to www.rug.nl/clrs for information about such appeals and how to lodge one.

H. Applicable combination tables

1. Knowledge Development B1 (KPB1) combination table
2. Knowledge Development B2 (KPB2) combination table
3. Knowledge Development B3 (KPB3) combination table

Combination table KPB3 Combined scores on KPB3 tests

- | | |
|--|-----------------|
| <ul style="list-style-type: none">• Attended four times• At least one 'good' grade at knowledge level 12 in the last three tests• And at least a 'good' grade at knowledge level 10 for the last test(s) in the series | Good (G) |
| <ul style="list-style-type: none">• Attended four times• At least one 'pass' grade at knowledge level 12• And at least a 'pass' grade at knowledge level 10 in the last test of the series | Pass (V) |
| <ul style="list-style-type: none">• All other combinations of grades | Fail (O) |

5 Implementation regulations for the Competency Development assessment process

5.1 Competency Development – determining the learning outcomes

The LC directors are the examiners and bear ultimate responsibility for the course units. The competencies and learning outcomes are defined centrally each year. The competencies are set out in the document 'Competentie ontwikkeling in de bachelor geneeskunde G2020, April 2016'.

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5.2 Assessment of competencies

Competencies are mainly assessed based on assignments. However, the tutor-led teaching is also part of this assessment. Competency development is assessed in the Competency Development 3.1 course unit. Assessment takes place based on the learning outcomes for each year (Competentie ontwikkeling in de bachelor geneeskunde G2020, April 2016), which are drawn up by the competency coordinators. Each assessment will be included in the student's digital portfolio. Although the composition of the collection of LC assignments is different for each LC, the total of assessments of the various competences provides sufficient information to assess whether students have achieved the competency levels laid down.

5.2.1 Deadlines

The LCs apply uniform guidelines to **deadlines** for LC assignments, how they are assessed and how they can be remedied if a deadline is missed. At the start of each LC assignment, a clear deadline (date and time) is set and it is enforced strictly by the LC. If students miss a deadline, the LC records a NOT in their portfolio under the Professional competency.

5.2.2 Plagiarism scan

Students must upload all types of written reports on LC assignments to the plagiarism scanner on Nestor. The LC directors are responsible for having the result of the scan checked to detect copying. Any suspicion of plagiarism is reported to the Board of Examiners for Dentistry and Medicine (ECTG), which can obtain the scan reports when assessing the case.

5.2.3 Assessment of LC assignments

In G2020, information on the performance of students is collected at various stages. This information consists of low-stake assessments, which will be recorded in the digital portfolio. 'Low stake' assessments are an observation of the competency level of individual students in relation to the average expected level for the relevant stage of the degree programme. This is evaluated using On Track (OT), Not On Track (NOT) and Fast On Track (FOT) assessments (see Appendix 1). An individual assessment becomes relevant for the assessment of competency development when several lecturers confirm each other's observations and a problem with the student's competence development is shown. An assessment by an individual lecturer is therefore a low-stake assessment in the assessment process. This does not exclude low-stake assessments from having direct consequences for students if a problem is identified that is of such seriousness that it must lead to consequences. To assess whether students have achieved the learning outcomes laid down for each year, a series of low-stake assessments for each course unit will result in a final ('high stake') result. Based on the final assessment, ECTS credit points will be awarded for each course unit (see Appendix 1). If the final mark for Competency Development 3.1 is a pass, 10 ECTS credit points will be awarded.

5.3 Competency Development assessment process

The LC director will formulate a carefully considered **assessment recommendation** based on quantitative requirements (i.e. meeting the digital portfolio requirements) and qualitative aspects (competency development) based on the formative low-stake assessments and written feedback, which are aggregated at competency level. Guidelines for determining the final result are set out in Appendix 1. The percentages of OT, NOT and FOT assessments for the LC assignments as a whole provide an indication for the final mark for competency development. The examiner may depart from the guidelines if there are compelling reasons. A student who has not met the portfolio requirements (i.e. has missed LC assignments) but has a pass for the competencies will equally be given a negative assessment recommendation.

5.4 Competency Development final result

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On the basis of the assessment recommendation given by the LC director, the examiner will determine a definitive high-stake final assessment in the form of a mark.

In the case of students who, for compelling reasons beyond their control, have not been able to submit a complete portfolio, the examiner can postpone the giving of a mark. If there are no such compelling reasons for submitting an incomplete portfolio, the mark given for the course unit will be a fail (O).

All students are discussed at a meeting of the Appraisal Committee for Competency Development behind closed doors (known as a 'Rapport vergadering') at the end of the semester. This is attended by the year coordinators, the examiners and the Programme Director and an independent person. A member of the Board of Examiners for Dentistry and Medicine may advise the Committee but cannot take part in its decision-making. Each year coordinator will present an overview of the final assessments of the students in their LC. Cases of doubt and individual cases that require attention will also be discussed. Students for whom the recommended final mark is a fail (O), but whom the LC director is considering giving a pass mark, will be discussed in any case.

5.5 Announcement of Competency Development final mark

Students will be informed of their final result, with reasons, via Nestor within 10 working days of the end of the semester

5.6 Access to Competency Development final result

Students who have questions about their final assessment can request a meeting with the examiner.

5.7 Competency Development resits

Which type of resit a student is entitled to will be decided by the examiner:

5.7.1 Fast resit

A student who has failed by not meeting the portfolio requirements will be given a second chance to submit the portfolio. This is an official resit. Once the portfolio requirements have been met, the course unit will be recorded as passed. If the gap can be remedied in the foreseeable future after the end of the semester, the student will take the necessary steps and the whole portfolio will be reassessed. This remedial work and the portfolio assessment must be completed within a time limit agreed between the student and the LC director. If the portfolio is not completed within the time limit, for whatever reason, a fail (O) will automatically be recorded under Progress. The student can remedy this in the next course unit.

5.7.2 Resits during the next semester

A student who fails the final assessment for a course unit is required to meet the examiner and agree on their subsequent course of study. If it is possible to resit the course unit during the next semester, the student will draw up a remedial plan of action including mutual agreements and actions. This plan must be presented to and approved by the examiner. The student will include the action plan in the digital portfolio. At the end of the next semester, the coach and the examiner will assess the student on the basis of the agreements in the plan. If the remedial work results in a pass, the student's entire competency development will be reassessed and a final mark will be given for the course unit. If the remedial work results in a fail, the course unit must be resat when it is offered again.

5.7.3 No resit during the next semester

A student whose results are so poor that a resit during the next semester is not possible must resit the entire course unit during the next academic year in order to be awarded the credit points.

5.8 Remedial work

If it emerges during the semester (from discussions with the LC director) that the student is failing to develop the required competencies or there are other concerns, the LC director will organize a meeting with the student and the examiner. This meeting will be used to ascertain why progress is unsatisfactory and to discuss with the student whether and how they can satisfy the requirements. The student will draw up an action plan to remedy the situation including mutual agreements and actions. This plan must be presented to and approved by the examiner.

Students who, in spite of this supervision, still fail to develop the desired level of competency may be referred by the examiner to the Committee for Signalling and Remediating Problems (SRC).

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Table 1. Bachelor's project assessment summary

Component	Test	Deadlines*	Assessor	Type of assessment
Bachelor's thesis	Individual thesis with team elements (introduction/method/results)	Submit at end of May	1. Supervisor 1x 2. Reviewer 2x	Individual assessment Mark 4-10
Product	Product team assignment	Mid-June	1. Supervisor 1x (Product + study description) 2. Independent assessor 1x (pitch over product)	Team assessment Mark 4-10
Study progress	Written individual assignment	Begin June	Supervisor	Individual assessment Mark 4-10
Leadership test (1)	Individual presentation (SWOT)	April to June	Independent assessor	Team assessment NOT-OT-FOT
Leadership test (2)	Written team assignment	Hand in May/June	Independent assessor	Team assessment NOT-OT-FOT
Leadership test (3)	Written individual assignment	Hand in May/June	Independent assessor	Individual assessment NOT-OT-FOT

**These deadlines are draft dates. The final data will be communicated via Nestor.*

**Table 2.
Assessment of Leadership assignments**

Average assessment	Criteria
FOT	Students will receive an FOT if they score an FOT on 3 assignments (>3=FOT)
NOT	Students will receive an NOT if they score a NOT on 2 or more assignments, irrespective of the other test scores (>1 = NOT)
OT	Students who do not meet the above-mentioned criteria for an FOT or an NOT will receive an OT

Appendix 1. Competency Development 3.1 final result

Determining a high-stake final assessment of the digital portfolio involves four phases:

1. Range of low-stake assessments and narrative feedback

LC assignment assessors will give narrative feedback on the relevant competencies for each assignment and each competency, and a Not On Track (NOT), On Track (OT) or Fast On Track (FOT) grade for each competency.

High-stake assessment recommendations

There are two ways in which an LC director can arrive at a recommended high-stake assessment:

- i. The LC director makes a well-informed recommendation (a grade on a scale of 1 to 10) based on their observation of the student, quantitative requirements (i.e. completeness of the portfolio) and qualitative aspects (i.e. low-stake assessments and written feedback).
- ii. The number of NOT, OT and FOT assessments is translated into a calculated recommended score. The LC director may depart from the calculated recommendation, as NOTs and FOTs for particular competences may be assigned more or less weight than is warranted purely arithmetically. Students about whom there are doubts will be discussed by the Appraisal Committee for Competency Development (known as the 'Rapport vergadering') that is organized after the end of the semester, which is attended by the LC directors, the expert and the Programme Director. A member of the Board of Examiners for Dentistry and Medicine (ECTG) will be invited to the meeting as an advisor.

Arithmetical calculation of a high-stake assessment:

- For students whose portfolio is complete on the last day of the semester and who have never received a Not On Track assessment:
 - o All assessments are Fast On Track $\geq 90\%$ → recommended final assessment mark 10
 - o $\geq 70\%$ number of Fast On Track assessments $< 90\%$ → recommended final assessment mark 9
 - o $\leq 40\%$ number of Fast On Track assessments $< 70\%$ → recommended final assessment mark 8
 - o Number of Fast On Track assessments $< 40\%$ → recommended final assessment mark 7
- In the case of students whose portfolio is complete on the last day of the semester and who have received one, two or three Not On Track assessments, the LC director must decide whether or not to award a fail (O). If the Not On Track assessments do not result in a fail, the above-mentioned procedure will be followed to calculate the mark and the 'recommended final assessment mark of 7' will be replaced with:
 - o $\leq 20\%$ number of Fast On Track assessments $< 40\%$ → recommended final assessment mark 7
 - o Number of Fast On Track assessments $< 20\%$ → recommended final assessment mark 6
- Students whose portfolio is complete and who have received four or more Not On Track assessments → recommended final assessment mark fail (O)
- Students whose portfolio is not complete → recommended final assessment mark fail (O)
- Students whose Care Clerkship resulted in three Not On Track competence assessments → recommended final assessment mark fail (O)

The examiner will decide the definitive final mark for the course unit based on the recommendation by the LC director and the feedback in Scorion.

2. Definitive high-stake final assessment

On the basis of the information in the portfolio, the recommended final assessment and the information from the Appraisal Committee for Competency Development, the examiner will

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determine a definitive high-stake final assessment in the form of a mark. The mark will be rounded off to a whole number (6, 7, 8, 9 or 10). A mark higher than or equal to x.5 will be rounded up to x+1; a mark lower than x.5 will be rounded down to x. Marks below 5.5 are indicated with an O (= fail). In the case of students who, for compelling reasons beyond their control, have not been able to submit a complete portfolio, the examiner can postpone the awarding of a mark. If there are no such compelling reasons for submitting an incomplete portfolio, the mark awarded for the course unit will be a fail (O).

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Part 1C Pre-Master's in Medicine

AIM OF THE DEGREE PROGRAMME

The aim of the Pre-Master's programme in Medicine (PMG) is to provide students with as much medical knowledge and professional development as possible in one year to prepare them adequately for the Master's degree programme in Medicine. If they pass this programme, they will receive a certificate that entitles them to be admitted to the Master's degree programme.

PROGRAMME

Broadly speaking, the programme follows the teaching in the Bachelor's degree programme in Medicine. The learning outcomes, based on the outline plan, and the assessment are similar.

The PMG year covers all Causes of Diseases course units of the Bachelor's degree programme in Medicine (years 1, 2 and 3) in a compressed form. This is assessed in eight tests (1.1-1.4 and 2.1-2.4). In order to provide a logical sequence (first basis, then in-depth study) and a balanced distribution of subject matter, it has been decided to not always offer topics in sync with the Bachelor's degree programme in Medicine. The competency component of the four regular Learning Communities is not taken. Instead, it is replaced with a Professional Development programme which covers aspects of the G2010 Professional Development course unit and the G2020 Competency Development course unit.

The learning outcomes, subject matter, sources and examination questions follow the Bachelor's degree programme in Medicine.

The Pre-Master's programme comprises the following components:

1. PMG 1 (23 ECTS credit points)
 - Contains Causes of Diseases components from years 1, 2 and 3 of the Bachelor's degree programme in Medicine (see Appendix)
 - Four assessments. Assessments are not cumulative.
2. PMG 2 (23 ECTS credit points)
 - Contains Causes of Diseases components from years 1, 2 and 3 of the Bachelor's degree programme in Medicine (see Appendix)
 - Four assessments. Assessments are not cumulative.
3. PMG 3 Knowledge Development (4 ECTS credit points)
 - Written progress tests 9-12. As in year 3 of the Bachelor's degree programme in Medicine.
4. PMG 4 Professional development (10 ECTS credit points)
 - Practical-related requirements for Basic Life Support (BLS), Medical Consultation (MCV) and a one-week care clerkship.
 - Portfolio: reflection assignments and professional conduct assessments in supervision groups.

SUBJECT MATTER

The PMG year covers a large part of the Bachelor's degree programme in Medicine (years 1, 2 and 3). This is assessed in eight assessments (1.1-1.4 and 2.1-2.5). The examiner draws up a syllabus for the organization of the year, which gives a description of each week and the sources and subject matter for that week. The sources are largely the same as for the Bachelor's degree programme in Medicine. The subject matter is provided in the form of learning questions, which cover a large part of the learning outcomes and checklists offered in the Bachelor's degree programme. The tests are based on this subject matter.

ASSESSMENT

Assessment of PMG 1 and PMG 2 course units

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The assessments for the PMG 1 and 2 course units must be passed with an average of a pass mark (≥ 5.50). PMG 1 and 2 will be assessed on part of the Causes of Diseases subject matter from years 1, 2 and 3, which is selected by the PMG examiner. The result of the written assessment is calculated based on a knowledge percentage of 60% and a Cohen cut-off score at the 99th percentile.

PMG 3: Knowledge Development BIII

Students must pass the written progress test, subject to the following conditions:

- Level 12 for the third or fourth test
- If the third test is passed at level 12, the fourth test must be passed with a minimum of level 10 (consistency)

PMG 4: Portfolio

All practicals must be passed.

The portfolio must be passed.

Final mark for the Pre-Master's programme

Students are considered to have passed the Pre-Master's programme if they:

- a. have passed the PMG 1 and PMG 2 course units
- b. satisfy the requirements of Knowledge Development 3 of the Bachelor's degree programme in Medicine as described above (PMG 3 Knowledge Development)
- c. have passed the PMG 4 course unit
- d. have met all attendance requirements

Resitting course units

Each course unit that is not passed may be resat once.

1. All the partial assessments for PMG 1 and PMG 2 that have been failed can be resat during the academic year in order to complete the PMG 1 and PMG 2 course units with an average of a pass mark (≥ 5.50).
2. Knowledge Development: If a student has failed the examination, the next progress test will count as the resit opportunity for the Knowledge Development BIII examination.
3. Resitting the practical-related requirements: the examiner will set a remedial assignment to compensate for the failed practical-related requirements and set the student a time limit for its completion.
4. If, after a resit, the student has met all the requirements listed under Assessment, the final mark will be revised and the associated ECTS credit points awarded.

Satisfactory completion of the course

The Pre-Master's programme can only be completed with a passing grade if all components have been completed with satisfactory final assessment within two years of the start of the course. The programme will issue a certificate confirming that the course has been successfully completed and that the student is eligible for admission to the Master of Medicine programme at the RUG.

(Note: the student should take into account that according to the OER Master of Medicine RUG the master programme must be started within one year after completion of the PMG. Admission to the master's programme is the responsibility of the Admissions Committee for Medicine)

Organization of the 2021-2022 PMG programme

SEMESTER 1

Examination 1.1

Bachelor's degree programme in Medicine, year 2:

Week 1-4 Nephrology and pharmacokinetics

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Rheumatism
Systemic lupus erythematosus (SLE)
The Skin

Bachelor's degree programme in Medicine, year 3:

Week 1-4 Nervous system and sensory organs
Additionally Physiology of the kidney
Pharmacodynamics
Immunology

Examination 1.2

Bachelor's degree programme in Medicine, year 1:

Week 9-10 Anaemia, coagulation and gas transport

Bachelor's degree programme in Medicine, year 2:

Week 6 Heart failure, Applied Pharmacology
Including valvular abnormalities and arrhythmias

Week 7 Chronic pulmonary pathology

Bachelor's degree programme in Medicine, year 3:

Week 5-10 Neurology, up to and including syncope week 10

Additionally Neuroanatomy
Cardiac and Pulmonary Physiology

Examination 1.3

Bachelor's degree programme in Medicine, year 1:

Week 11-12 Cell biology, leukaemia, mammary carcinoma

Bachelor's degree programme in Medicine, year 2:

Week 8 Spot on the lung
Week 9 Basic principles of oncology
Week 10 Leukaemia
Week 11 Lymphoma
Week 12 Swallowing
Week 13 Heartburn
Week 14 Jaundice
Week 15 Blood in the stool
Week 16 Death
Week 17 Skin cancer

Examination 1.4

Bachelor's degree programme in Medicine, year 1:

Week 13-15 Medical microbiology and Infection prevention

Week 5 Contamination

Additionally Infection Medical bachelor's degree programme, year 2 + 3

Bachelor's degree programme in Medicine, year 3:

Week 11-19 Neurology/psychiatry

Additionally Care internship SEMESTER 2

SEMESTER 2

Examination 2.1

Bachelor's degree programme in Medicine, year 1:

Week 6-7 Diabetes mellitus and thyroid

Week 23-27 Peripheral vascular disease and hypertension

Week 26 Basic and acute nephrology

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Bachelor's degree programme in Medicine, year 2:

- Week 21 Obesity, metabolic syndrome and Type 2 diabetes mellitus
- Week 22 Shoes no longer fit

Bachelor's degree programme in Medicine, year 3:

- Week 21 Aorta, hypovolemic shock
- Week 22 Acute cardiac pathology
- Week 23 Acute pulmonary pathology
- Week 24 ICU line

Examination 2.2

Bachelor's degree programme in Medicine, year 2:

- Week 23-30 Gynaecology
- Additionally* Including oncology

Bachelor's degree programme in Medicine, year 3:

- Week 25-29 Acute abdomen
- Unconsciousness

Examination 2.3

Bachelor's degree programme in Medicine, year 1:

- Week 32-33 Geriatrics
- Week 34 Osteoporosis and arthrosis

Bachelor's degree programme in Medicine, year 2:

- Week 31-35 Jaundiced child
- Cyanotic child
- Fever
- Shortness of breath
- Failure to thrive (too small)
- Neurology (too slow)
- Child Psychiatry

Examination 2.4

Bachelor's degree programme in Medicine, year 2:

- Week 36-39 Osteosarcoma
- Groin and scrotal swelling
- Prostate
- Uterine prolapse and urinary incontinence

Bachelor's degree programme in Medicine, year 3:

- Injuries