Course Specifications

Valid as from the academic year 2018-2019

Rehabilitation and Physiotherapy of the Respiratory System (D001794)

Course Specifications

Lecturers in academic year 2019-2020
- Derom, Eric, GE35, lecturer-in-charge
- Van Hoof, Tom, GE38, co-lecturer

Offered in the following programmes in 2019-2020
- Bachelor of Science in Rehabilitation Sciences and Physiotherapy
  - Crdts: 4
  - Offering: B

Course offerings and teaching methods in academic year 2019-2020
- B (semester 2)
- Dutch
- Seminar: 17.5 h
- Lecture: 20.0 h

Course size (nominal values; actual values may depend on programme)
- Credits: 4.0
- Study time: 108 h
- Contact hrs: 45.0 h

Teaching languages
- Dutch

Keywords
- Obstructive, restrictive and infectious pulmonary disorders, bronchiectasis, respiratory insufficiency, breathing exercises, expectoration, hyperventilation, pulmonary rehabilitation, aerosol therapy, perioperative physical therapy, nosocomial infections, spirometry

Position of the course
- This section assumes a perfect knowledge of the anatomy and physiology of the respiratory system.
- The aim of the course is:
  1) to acquire a thorough competence in the techniques which are essential in the treatment of patients with obstructive and restrictive pulmonary diseases and with acute pulmonary infections;
  2) to acquire a thorough competence in designing a treatment planning for the aforementioned diseases.

Contents
- Topographic anatomy of the respiratory system
- Pathokinesiology of the respiratory system.
- Medical history and clinical examination of the respiratory patient.
- Current respiratory disorders.
- Spirometry, isolated peak expiratory flow measurement, (including indications and interpretation).
- Aerosol therapy. Use of devices.
- Smoking cessation (introduction)
- Differentiated breathing.
- Techniques mobilizing the thorax.
- Sputum-evacuating techniques and volume recruitment techniques to improve sputum transport and airway clearance.
- Prevention of dissemination of nosocomial infections.
- Pulmonary rehabilitation and techniques to recondition patients with respiratory diseases.
- Integration of learned treatment techniques in a therapeutic schedule, using a patient case.
- Invasive and non-invasive ventilation.

(Approved)
Initial competences

Thorough knowledge of the anatomy and physiology of the respiratory system, as well as of the kinesiology of the respiration. The student has successfully completed the following courses or has acquired the intended competences: 'General Human Physiology', 'Biochemistry' and 'Cytology and Histology'.

This course is only being added to the curriculum, when the following courses are a part of the curriculum: 'Exercise Physiology' or when the inherent competences have been acquired in another way.

Final competences

1. The student has a basic knowledge of the topographic anatomy of the respiratory system.
2. The student has a basic knowledge of the pathokinesiology of respiration.
3. The student has a basic knowledge of the diseases of the respiratory system with which a physiotherapist may regularly be confronted with.
4. The student has a basic knowledge of spirometry (interpretation and performance).
5. The student has a basic knowledge in the techniques and the expected results of pulmonary rehabilitation and reconditioning in respiratory patients.
6. The student has a basic knowledge of invasive and non-invasive ventilation.
7. The student has a basic knowledge of the principles of smoking cessation.
8. The student has acquired the insight in and the skills to take a medical history and perform a respiratory clinical examination.
9. The student has acquired the insight in and the skills how to perform physiotherapeutic techniques to improve mucociliary clearance and realize volume recruitment in acute and chronic pulmonary diseases, both in an out-patient as an in-patient setting (including intensive care).
10. The student has acquired the insight in and the skills to coach a patient how to perform differentiated breathing and mobilize his thorax.
11. The student has acquired the insight to integrate all the aforementioned techniques into a treatment plan.
12. The student has acquired the insight in and the skills to teach patient how to perform an 'isolated' peak flow measurement and how to take inhaled drugs.
13. The student has acquired the insight in and the skills to implement the necessary measures to prevent the dissemination of nosocomial infections.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment.

Conditions for exam contract

This course unit cannot be taken via an exam contract.

Teaching methods

Lecture, seminar

Extra information on the teaching methods

Oral presentations, workshops, demos, practical sessions in the lab of anatomy and physiology.

Learning materials and price

Handout, provided by the faculty to students (Dutch), videoclips on the multimediaplatform

References

"Revalidatie bij chronisch obstructieve longziekten Gosselink, R. / Decramer, M". Prijs 59.95 euro.
KNGF-guidelines
BVP videos about devices.

Course content-related study coaching

Minerva Personalised contact

Evaluation methods

end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period

Written examination, oral examination, skills test

Examination methods in case of periodic evaluation during the second examination period

Written examination, oral examination, skills test

Examination methods in case of permanent evaluation

(Approved)
Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

Written exam with closed book, skills and case with closed book during a practical session, session on the lab for anatomy.

Calculation of the examination mark

• The end result is the average of the partims Theory (50%) and Practice (50%).
• If the student has < 8/20 for one of the partims, he/she can no longer pass the course. If the mathematical end result would be 10/20 or more, the final result will be reduced to 9/20.
• If the student has 8/20 or 9/20 for one of the partims, he/she can only pass the course if the average is higher or equal to 12/20. If the mathematical end result is higher than or equal to 10/20 and less than 12/20, the final result will be reduced to 9/20.

Facilities for Working Students

No specific facilities are provided.