

## Human Health and Disease: A Clinical Approach, Section D

### Fall 2017

Instructors: Dr. Niels West and Dr. Charlotte Holm-Hansen

Tuesday and Friday, 15:30-17:30, Rigshospitalet

#### Instructors



**Niels West**

M.D. (University of Copenhagen, 2014) and researcher at Department of Otolaryngology, Head and Neck Surgery, Rigshospitalet and Gentofte Hospital. With DIS since 2016.



**Charlotte Holm-Hansen**

M.D. (University of Copenhagen, 2015). First year resident in pediatrics at Roskilde University Hospital. Previous experience in general practice, abdominal surgery and internal medicine. Extensive experience in global health including the World Health Organization and the United Nations. With DIS since 2013.

#### Course Assistant



**Morten Packert Andersen**

12th semester medical student at University of Copenhagen. B.Sc. Medicine, University of Copenhagen 2014. Research assistant at Clinic for Spinal Cord Injuries, Rigshospitalet. Avid swimmer and swim coach in USG/KSI. With DIS from 2017

#### Learning objectives

The objective of the course is to introduce students to the most important human diseases, their diagnoses and treatments, and to the clinical working methods of physicians as practiced at a large, Danish University Hospital (Roskilde and Glostrup Hospital) both in Copenhagen. Upon completion of this course, students will be able to:

1. Write a structured medical report
2. Explain the rationale for choice of tests and treatments in clinical practice
3. Copy basic manual skills (IV insertion, suture, and catheter insertion) and give a basic explanation of the techniques
4. Discuss knowledge of human anatomy, physiology, and scientific context
5. Describe medical practice in a social, international, and scientific context
6. Outline the epidemiology of major diseases in both the industrialized world and the developing world.

#### Content

The clinical approach of the course implies studying symptoms, signs, diagnostic methods and treatment of the most important human diseases, writing patient case reviews based upon medical records, and patient interviews, visiting various clinical and diagnostic hospital departments, and performing physical examinations on phantoms or other students.

The course, however, does not provide regular medical training corresponding to that of medical students and does not include shadowing of doctors or physical examination of patients. Patient demonstrations are included in some, but not all, lectures.

**DIS Contacts**

Lisbeth Borbye, Program Director

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Bethany Cucka, Program Assistant, bcu@dis.dk, tel. +45 3376 5789

Science & Health Program Office, Vestergade 10-B12

**Pre-requisites**

At least one year of biology and one year of chemistry at the university level. The course is oriented towards serious students with a documented academic interest in medicine.

**Evaluation**

Students will be evaluated based on participation, three theoretical patient cases, two small tests, and a final examination. There will also be a small assignment related to the study tours. The grade on this assignment will contribute to your participation grade

Tests (2 at 10%)	20%
Patient cases (4 at 7,5%)	30%
Final examination	30%
Study tour Assignment	10%
Participation	10%

**Participation covers the following areas**

1. Attendance
2. Level of preparation and ability to answer questions asked in class
3. Involvement in class and group discussions
4. Level of individual research and contribution to discussions

**Policy on late papers**

Late papers will be accepted, but your grade for the paper will be reduced by half a point for each day that it is late.

**Electronics**

Computer is allowed for class purposes. It is not allowed for other activities such as social networks, sending personal e-mails etc. If you use a computer for other purposes, it will affect your participation grade. Cell phone usage is not allowed in class. It is distracting to both your classmates and your instructors, so please keep them turned off. Otherwise it will affect your participation grade.

**Theoretical Patient Case (TPC)**

During the semester, you will be presented with three theoretical patient cases in class to work on individually. You are responsible for suggesting, based on the case you get, an appropriate course of questions to get a detailed medical history that will allow you to structure a relevant clinical exam and an appropriate course of paraclinical investigations leading to a preliminary diagnosis. More detailed information will be provided in class.

**Clinical Patient Case (CPC)**

During the semester, each student will be presented with different real patients and everyone will write up their own case history about the signs, symptoms, ailments and treatments for the specific patients that are introduced to the students. It is important to note that, on these dates, attendance is mandatory. Skipping class for travel or other reasons will not be accepted. More details will be given on this activity as the time approaches for the first Clinical Case Review.

**Important Information:**

***It is mandatory to attend all classes in which clinical case reviews are presented. Missing a class would result in a 'fail' on that paper.***

### **Tests and Final**

There will be a total of two tests throughout the semester. These tests will consist of a mix of short answer questions and essay questions. Tests may be given at the beginning of class or at the end. If the latter, the material covered in lecture that day may be on the test; so, make sure to pay close attention to the information discussed in lecture that day. Tests in class will generally last a maximum of 30 minutes depending on the amount of information covered. The final exam for this course will be cumulative and will be written in the same manner as tests. The final exam will be two hours in duration.

### **Practical Information**

Medical Practice & Policy faculty and staff have put many hours into selecting and organizing the readings for this course. Please make sure to read all the material assigned; the reading material has been carefully chosen and all of it is pertinent to your success in Human Health and Disease. You have an obligation to your fellow classmates and yourself to come prepared to class. If you have questions or need clarification about a reading or lecture material do not hesitate to speak up and/or contact the course assistant (see contact information above). This is very important as the professors for this course do not have scheduled office hours. However in the case that a meeting is needed, please feel free to set up appointments with them via email. You can contact them, the course assistant, or program assistant Bethany Cucka, ([bcu@dis.dk](mailto:bcu@dis.dk)) to set up an appointment or to ask a question.

### **DIS Policies**

**Attendance:** You are expected to attend all DIS classes when scheduled. If you miss multiple classes the Office of Academic Support will be notified and they will follow-up with you to make sure that all is well. Absences will jeopardize your grade and your standing at DIS. Allowances will be made in cases of illness, but in the case of multiple absences you will need to provide a doctor's note.

***Academic Honesty: Plagiarism and Violating the Rules of an Assignment***

DIS expects that students abide by the highest standards of intellectual honesty in all academic work. DIS assumes that all students do their own work and credit all work or thought taken from others. Academic dishonesty will result in a final course grade of "F" and can result in dismissal. The students' home universities will be notified. DIS reserves the right to request that written student assignments be turned in electronic form for submission to plagiarism detection software. See the *Academic Handbook* for more information (on DIS Forum), or ask your instructor if you have questions.

***Disability Resources:*** Any student who has a need for disability accommodations should contact the office of academic support ([acadsupp@dis.dk](mailto:acadsupp@dis.dk)) to coordinate this. Upon DIS approval, students should inform the instructor of accommodations within the first two weeks of class.

***Academic Excellence Award:*** Each semester we recognize one outstanding student from the Medical Practice & Policy Program with an Award of Academic Excellence. It is reserved for a student who has distinguished him- or herself through diligence, commitment, academic performance, and ideally a student who contributes to a good, collaborative learning environment in class.

### **Core Course Week and Study Tours**

Core Course week and study tours are an integral part of the core course as we take the classroom on the road and see how theory presented in the classroom is translated to practice in the field. You will travel with your classmates and DIS faculty/staff on two study tours; a short study tour during Core Course Week and a long study tour to relevant European destinations.

#### **Expectations for study tours:**

- Participate in all activities
- Engage in discussions, ask questions, and contribute to achieving the learning objectives
- Respect the destination, the speakers, DIS staff, and your fellow classmates
- Represent yourself, your home university and DIS in a positive light

One of the learning objectives of Human Health and Disease: A Clinical Approach is for you, the student, to be able to describe medical practice in a social, international, and scientific context. The study tours are a way to achieve this learning objective.

***Learning Objectives:***

The objectives of both the short study tour and the long study tour are:

- to showcase examples of clinical practice and health care systems in different sectors and countries
- to broaden the students' view of the challenges that health care providers face
- to show examples of research with clinical relevance
- to explore and learn more about Denmark and other societies in Europe

While on a program study tour DIS will provide hostel/hotel accommodation, transportation to/from the destination(s), approx. 2 meals per day and entrances, guides, and visits relevant to your area of study or the destination. You will receive a more detailed itinerary prior to departure.

***Travel policies:*** You are required to travel with your group to the destination. If you have to deviate from the group travel plans, you need approval from the program director and the study tours office.

**Study Tour Assignment**

Before going on the short study tour, you will be divided into groups and be given a specific subject to focus on in your study tour assignment. An observation booklet should be used on both trips for notes, these notes with which should be discussed within your group. A more in-depth description of the study tour assignment will be provided closer to the short study tour. *All parts of the assignment must be completed in order to obtain full credit for the assignment which counts toward 10% of your grade.*

**Required readings**

- **Hole JW:** Essentials of Human Anatomy & Physiology, 9th Edition. WC Brown Publishers, London 2004: Hole.
- **Ford MJ, Hennessey, I, and Japp, A:** Introduction to Clinical Examination, 8th Edition. Churchill Livingstone, London 2005: Ford.
- **O'Neill P, Dornan T, Denning DW:** Medicine. A Core Text with Self-Assessment. Churchill Livingstone, 3rd Edition, 2008: O'Neill.
- **Additional Readings will be posted on Canvas**

NOTE: Not all reading assignments will be covered in class, but all reading assignments are absolutely necessary in order to follow what is actually covered in class. In some cases, where noted, skimming the reading and picking out important points will be sufficient.

**Canvas**

Canvas is a web-based system that allows you to access course resources and communicate with your classmates and faculty. To access Canvas, you can go to the DIS homepage and click the 'Canvas' link on the bottom of the website, or go to: <https://canvas.disabroad.org/login/canvas>. You can also download the Canvas App (By: Instructure) on iPhone and Android mobile smart phones.

**Useful Links and Online Medical Dictionaries**

1. Medline Plus Medical Dictionary  
<http://www.nlm.nih.gov/medlineplus/mplussdictionary.html>
2. Medical Dictionary  
<http://www.medical-dictionary.com/>
3. Medicine Net  
<http://www.medicinenet.com/>
4. Inteli Health  
<http://www.intelihealth.com/IH/ihtIH/WSIHW000/408/408.html>
5. UK Medical Search Engine & Health Guide  
<http://www.medic8.com/index.htm>

## Semester Schedule Overview

Day / Date	Time, Room	Title	Read	Lecturer(s)
Wednesday, August 23 <b>Medical Practice &amp; Policy Program Orientation</b> 14:50-16:10 Kosmopol, Fiolstræde 44, 1171 København K (see arrival booklet)				
Friday 25/8	15.30-17.30  *meet CA in Vestergade 7 courtyard at 14:45 for departure to Rigshospitalet  Entrance 2, 7 <sup>th</sup> floor	<b>Lecture 1</b> Course Overview <ul style="list-style-type: none"> <li>- Presentation of the course</li> <li>- Definition of health and disease and the factors that influences health and disease</li> <li>- Introduction to CPC, TPC and tests</li> </ul>	N/A	Niels Charlotte
Tuesday 29/8	15.30-17.30 Rigshospitalet Entrance 2, 7 <sup>th</sup> floor	<b>Lecture 2</b> ENT (Ear, Nose and Throat) Medical and surgical conditions.	Ford, p 48-52, 58-59, 126-133, 27 O'Neill 393-395 Hand outs	Niels
Friday 1/9	15.30-17.30 Rigshospitalet	<b>Lecture 3</b> Signs, symptoms Clinical medical records. <ul style="list-style-type: none"> <li>- Physical examination</li> <li>- Understanding signs and symptoms</li> <li>- Structure of medical records</li> <li>- Introduction to TPC I</li> </ul>	Lecture notes on clinical examination (forum) and Ford pp 1-55	Charlotte
Tuesday 5/9	15.30-17.30 Rigshospitalet	<b>Lecture 4</b> General Practice and the Danish HealthCare System	General Practice and Primary Healthcare in DK (On Canvas)	Charlotte
<b>Mandatory Core Course Week &amp; Study Tour Orientation</b> <b>Wednesday, September 6</b> <b>17:30-19:00</b> DIS, F24-306 <i>(Will Discuss, Core Course Week, Long Study Tour, Introduction to Healthcare Systems)</i> <b>Readings:</b> <i>The Danish Healthcare System (On Canvas)</i> <i>WHO Health Systems in Transition Executive Summary only (On Canvas)</i>				

Friday 8/9		Reserved for make-up class		
<b>Medical Practice &amp; Policy (MPP) Program Social</b> <b>Friday, Sep 8</b> <b>18:00-20:00</b> Location: TBA				
<b>Core Course Week</b> Short Study Tour: Odense/Middlefart Monday, September 11-Wednesday, September 13				
Copenhagen Portion Thursday, September 14 – Friday, September 15 (ends at 18:30) <b><i>**Please note that it is mandatory to attend all scheduled core course week activities**</i></b>				
Thursday 14/9	15.30-17.30 Rigshospitalet  Entrance 2, 7 <sup>th</sup> floor	<b>Lecture 5</b> Infectious Diseases	Hole's: Chapter 14 O'Neill: Section on clinical aspects, serious sepsis and septic shock, classical infectious diseases and Malaria (imported diseases) pp 408-416, 417-422	Niels
Friday 15/9	15.30-17.30 Rigshospitalet	<b>Lecture 6</b> Cardiology I - Anatomy and physiology of the heart and vascular system. - Ischemic heart disease - ECG-reading  <b>Theoretical Patient Case I introduced</b>	Hole's: 340-377, chapter 13	Charlotte
Tuesday 19/9	15.30-17.30 Rigshospitalet	<b>Lecture 7</b> Cardiology II	Hole's: 340-377, chapter 13	Charlotte
Friday 22/9		<b>Reserved for make-up class</b>  <b><i>Theoretical Patient Case I Due</i></b> <i>(upload to Canvas by 15.30)</i>		

Friday 29/9	15.30-17.30 Rigshospitalet  Entrance 2, 7th floor	<b>Lecture 8</b> <b>Oncology</b>  <b>Clinical Patient Case 1</b>	Hole's 68, 454 O'Neill 80-83, 130, 150-151, 301-302 Hand outs	Niels
Tuesday 3/10	15.30-17.30 Rigshospitalet	<b>Lecture 9</b> Gastroenterology I	Ford: pp. 19-20, 25-26, 28-29, 32, 34, 98-116, Hole: Chapter 15; O'Neill: pp. 117- 126, 129-134, 148-151	Charlotte
Friday 6/10	15.30-17.30 Rigshospitalet	<b>Lecture 10</b> Gastroenterology II  <b>Test 1</b>	Ford: pp. 19-20, 25-26, 28-29, 32, 34, 98-116, Hole: Chapter 15; O'Neill: pp. 117- 126, 129-134, 148-151	Charlotte
<b>Long Study Tour: Tallinn/Stockholm</b> Sunday, October 8 – Friday, October 13				
Tuesday 17/10	15.30-17.30 Rigshospitalet	<b>Lecture 11</b> OBGYN - Anatomy & physiology - Menstrual cycle - Pregnancy & birth  <b>Clinical Patient Case 1 Due</b> (upload to canvas by 15:30)	Hole Chapter 19 and 20 (until 20.4)	Charlotte
Friday 20/10	15.30-17.30 Rigshospitalet	<b>Lecture 12</b> Pediatrics	On Canvas	Charlotte
Tuesday 24/10	15:30-20:00  Herlev Hospital  <b>*Note time and location</b>	<b>Emergency Medicine Simulation Session (EMSS)</b>  <b>Lecture 13:</b> Emergency Medicine	On Canvas	DIS + CAMES instructors

	<b>change*</b>	<ul style="list-style-type: none"> <li>➤ The management of stopped-heart diagnosing</li> <li>➤ Treatment of cardiac arrest</li> <li>➤ Practical training in resuscitation</li> <li>➤ Team training using simulation centre in various patient case scenarios</li> </ul> <p>**Course Assistant will establish a meeting time and place**</p>		
Friday 27/10		<b>Reserved for make-up class</b>		
<b>Break</b> Sunday, October 29 - Friday, November 3				
Tuesday 7/11	15.30-17.30 Rigshospitalet  Entrance 2, 7th floor	<b>Lecture 14</b> Endocrinology	Ford, p 50-52 Hole's: Chapter 11 O'Neill: Chapter 7	Niels
Wednesday 8/11		<b>Study Tour Assignment Due</b> (upload via Canvas by 16.00)		
Friday 10/11	15.30-17.30 Rigshospitalet  Entrance 2, 7th floor	<b>Lecture 15</b> <b>Practical ENT</b>	Ford, p 48-52, 58-59, 126-133, 27 O'Neill 393-395 Hand outs	Niels
Tuesday 14/11	15:30-19:30 <b>**Note Extended Time**</b> Rigshospitalet  Entrance 2, 7th floor	<b>Lecture 16 + 17</b> <b>Neurology I + II</b>  <b>Clinical Patient Case 2</b>	Hole's: 211-220, 228-233, 247-251, skim 234-246 O'Neill: 218-222(meningitis), 225-231 (stroke), 235-236 (epilepsy) Ford: 118-120, 123, 126-132	Niels
Friday 17/11		<b>Reserved for make-up class</b>		

Tuesday 21/11	15.30-17.30 Rigshospitalet	<b>Lecture 18</b> Global Health  <b>Test 2</b>	On Canvas	Charlotte
<b>Break</b> Wednesday, November 22 – Sunday, November 26				
Tuesday 28/11	<b>16:00-19:30</b> *Note time and location change*  Gentofte Hospital Simulation & Training Center	<b>Lecture 19</b> <b>Clinical Skill Session</b> Introduction to clinical skills: IV insertion, Catheter insertion and Suture  **Course Assistant will establish a meeting time and place**  <b>Clinical Patient Case 2 Due</b> <b>(upload to canvas by 15.30)</b>		DIS Clinical Instructors
Friday 1/12		<b>Reserved for make-up class</b>		
Tuesday 5/12	15.30-20.00 Rigshospitalet	<b>Lecture 20 - Final class</b> Wrap up, tying it together Preparation for the final & Concluding Social		Charlotte Niels
<b>Thursday, December 7</b> DIS End of Semester Showcase Time: 16:00-18:00 Location: DIS Invitation and more information to come closer to date.				
<b>Final Exam</b> <b>Final Exam Period: Thursday December 7 – Sunday December 10</b> Date & Time: TBA Location: DIS, TBA <i>Exact date &amp; time of Human Health &amp; Disease: A Clinical Approach Final Exam provided closer to.</i>				