

## **Human Health and Disease: A Clinical Approach Section B Spring 2017**

Instructors: Dr. Sarah Diemar, Dr. Charlotte Holm-Hansen, Dr. Nynne Dose  
Mondays and Thursdays, 15:30-17:30  
Roskilde Hospital and Glostrup Hospital

### **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 (suture, IV insertion, 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.

### **Instructors:**



#### **Dr. Sarah S. Diemar**

M.D. (University of Copenhagen, 2016). Ph.D. student at the University of Copenhagen and at Rigshospitalet Glostrup within the fields of neurology and endocrinology. Pre-graduate research year at the department of Cardiology, Nephrology and Endocrinology at Nordsjællands Hospital Hillerød. Previous Course Assistant for Human Health & Disease. With DIS since 2011.



#### **Dr. 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. Previous Course Assistant for Human Health & Disease. With DIS since 2013.



**Dr. Nynne Dose**

M.D. (University of Copenhagen, 2016). Internship in urology, Roskilde University Hospital. Previously internship at the emergency department, Køge University Hospital. Pre-graduate research year at the department of cardiology, Bispebjerg Hospital. Previous Course Assistant for Human Health & Disease. With DIS since 2015

**Course Assistant:**



**Emilie Espersen**

11<sup>th</sup> semester medical student at the University of Copenhagen. B.Sc. Medicine, University of Copenhagen, 2013. Resident Substitute at the Department of Medicine, Bornholms Hospital, 2015. Research year student at Center for Diabetes Research, Gentofte Hospital, 2016. With DIS since January 2017.

**DIS Contacts**

Lisbeth Borbye, Program Director  
Stephanie Clemente, Project Manager  
Ryan Polito, Program Assistant  
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.

**Short Calendar of Due Dates**

**Tests**

**Test I:** February 13

**Test II:** April 10

**Final Exams:** May 9

**Theoretical Patient Case Presentation**

**Case I:** February 9

**Case II:** April 20

\*Theoretical Patient Cases will be handed out in class approximately 7-10 days before due date.

**Clinical Patient Case Due**

**Case I:** March 3

**Case II:** March 27

**Introduction to Clinical Skill Session, Simulation & Training Center at Gentofte Hospital**

April 24

**Study Tour Assignment** is due **Friday, March 17** by **16.00** to Canvas, more information will be provided throughout the course of the semester

**Important Information:**

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

**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.

### **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 Ryan Polito 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 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.

### **Core Course Week – Short Tour:**

Kolding/Odense: Monday, February 6 – Wednesday, February 8 (*Part of Core Course Week*)

Copenhagen Portion: Thursday, February 9 – Friday, February 10

### **Long Tour:**

Tallinn, Estonia & Stockholm, Sweden: Sunday, February 26 – Friday, March 3

### **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. The study tour assignment is due **Friday, March 17 to Canvas by 16:00**. *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

#### **Textbooks:**

- **Hole's JW:** Essentials of Human Anatomy & Physiology, 9<sup>th</sup> Edition. WC Brown Publishers, London 2004: Hole's.
- **Ford MJ, Hennessey, I, and Japp, A:** Introduction to Clinical Examination, 8<sup>th</sup> 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.

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.

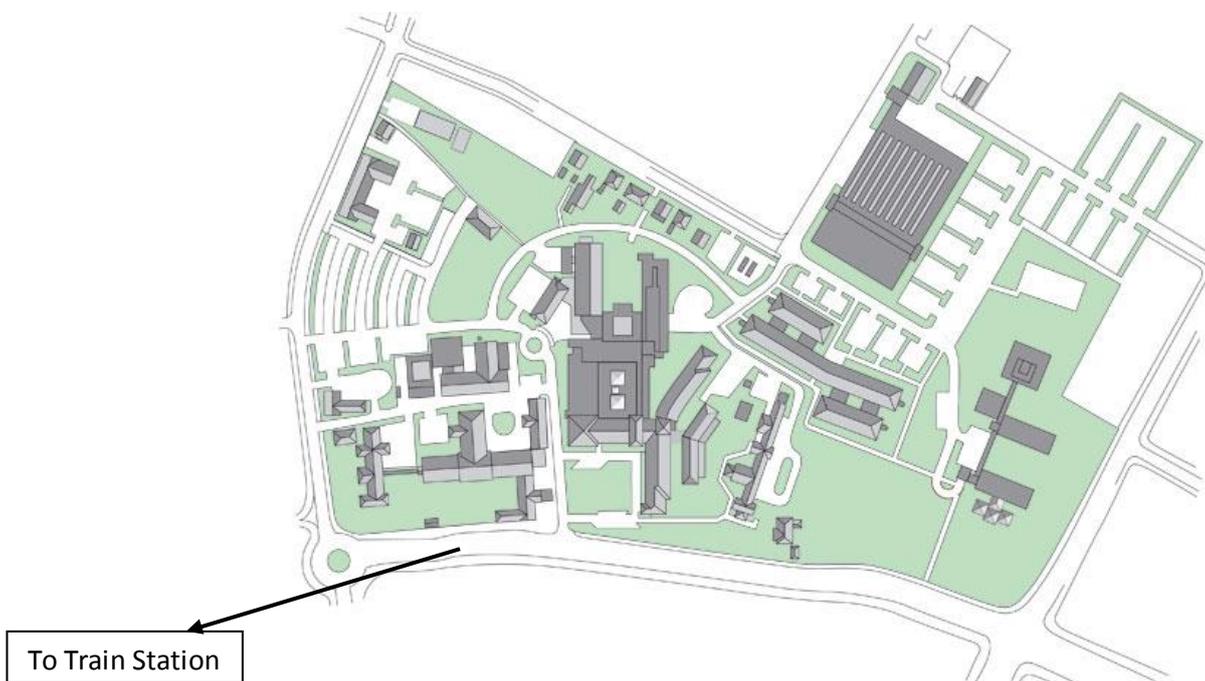
**Location and Meeting Times:**

**Transportation to Roskilde Hospital:** You will be taking public transportation to Roskilde Hospital on days that you have class there and your transportation pass provided by DIS will cover you from DIS to class.

To get to Roskilde, the following route is recommended:

Walk to København H (Copenhagen Central Station). Take Regional Train *Re 1257* towards Nykøbing, F St. (departs from platform 8), *Re 2557* towards Holbæk St., (departs from platform 8), take *IC 857* towards Esbjerg St. (departs from platform 7), *Re 1557* towards Kalundborg St. (departs platform 8). Get off at Roskilde St. Stop. Walk to Roskilde Hospital. Total travel time about **45 minutes**.

**Detailed Map of Roskilde Hospital:**



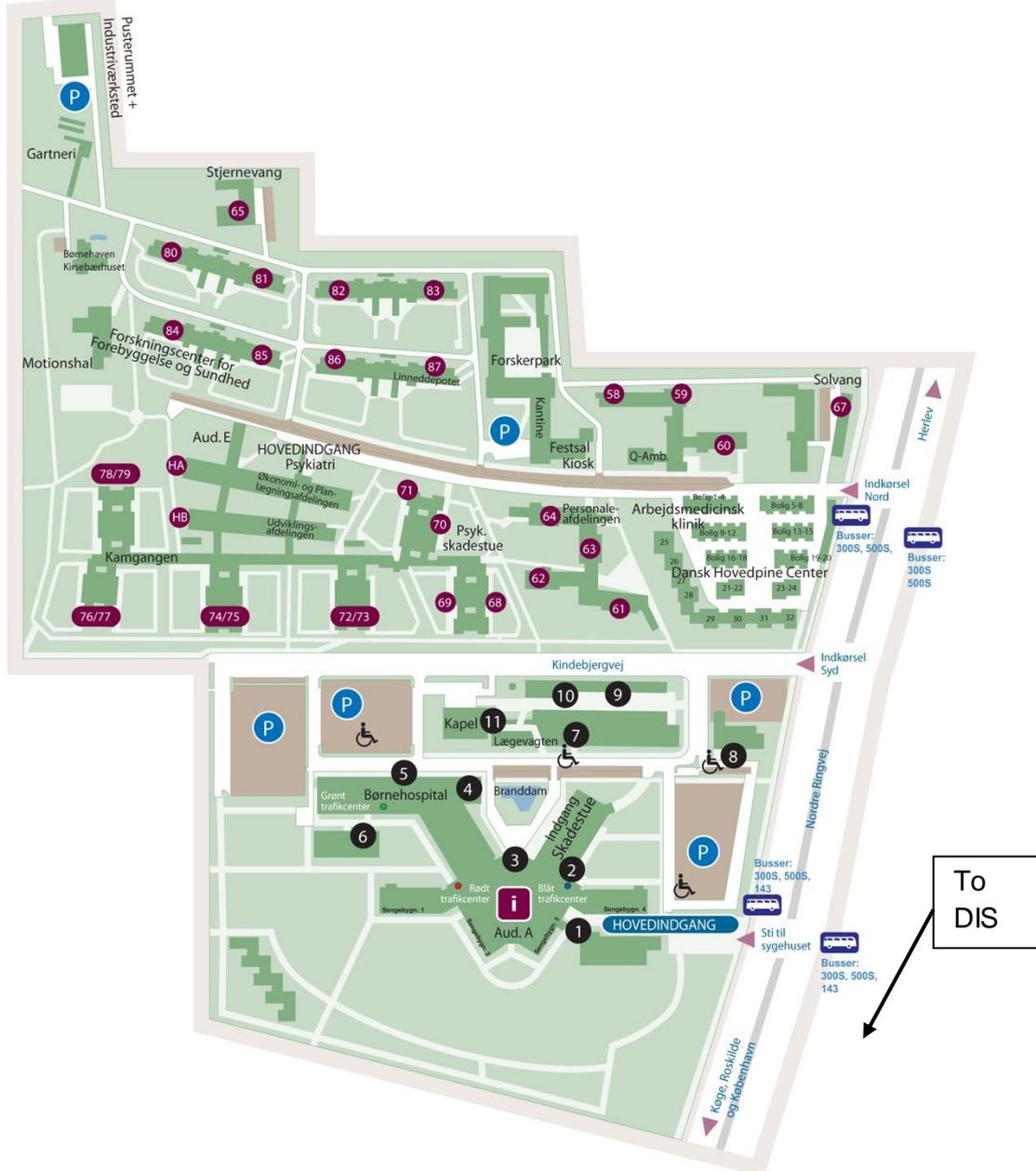
## Transportation to Glostrup Hospital:

You will be taking public transportation to Glostrup Hospital on days that you have class and your transportation pass provided by DIS will cover you from DIS to class.

To get to Glostrup, the following route is recommended:

Take S-train B towards Høje Taastrup st and get off at Glostrup St. Take bus 500S towards Kokkedal st or 300S towards Nærum st. and get off at Glostrup Hospital.

## Detailed Map of Glostrup Hospital:



## Other Information regarding class time:

Clinical Skill Session and Emergency Medicine Simulation Session will **not** take place at Roskilde or Glostrup Hospital. You will be escorted to them by either your Course Assistant or a Science and Health Department staff member. *Further information will be provided closer to date.*

## Semester Schedule Overview

Day / Date	Time, Room	Title	Read	Lecturer(s)
Wednesday January 18 <b>Medical Practice &amp; Policy Program Orientation</b> 14:50-16:10 Metroanneks on Fiolstræde (See Arrival Booklet)				
Thursday 19/1	15.30-17.30  *meet CA in Vestergade 7 courtyard at 14:30 for departure to Roskilde Hospital	<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	Sarah Charlotte Nynne
Monday 23/1	15.30-17.30 Glostrup Hospital	<b>Lecture 2</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	Sarah
Thursday 26/1	15.30-17.30 Glostrup Hospital	<b>Lecture 3</b> Paraclinical testing and imaging	Hole's Chapter 7  Background Notes on Diagnostic Imaging and lecture notes on Radiology (Canvas)	Sarah
Monday 30/1	15.30-17.30	<b>No Class</b> Reserved for make-up		
<b>Mandatory Study Tour Orientation</b> <b>Wednesday, February 1</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); What Can We Learn From Denmark? (On Canvas)</i>				
Thursday 2/2	15.30-17.30	<b>Lecture 4</b> General Practice, Health Care	On Canvas	Charlotte

<b>Medical Practice &amp; Policy Program Social</b> Friday, February 3, 18:00 – 20:00 Café Klaptræet				
<b>Core Course Week</b> Short Study Tour: Kolding/Odense Monday, February 6-Wednesday, February 8  Copenhagen Portion Thursday, February 9 – Friday, February 10				
Thursday 9/2	15.30-17.30 Roskilde Hospital	<b>Lecture 5</b> Cardiology - Anatomy and physiology of the heart and vascular system. - Ischemic heart disease - ECG-reading  <b>TPC I</b>	Hole's: 340-377, chapter 13	Nynne
Monday 13/2	15.30-17.30 Roskilde Hospital	<b>Lecture 6</b> Gastroenterology I  <b>Test I</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
Thursday 16/2	15.30-17.30	<b>No Class</b> Reserved for make-up  <i>TPC I due via Canvas</i>		
Monday 20/2	15.30-17.30 Roskilde Hospital	<b>Lecture 7</b> Gastroenterology II	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
Thursday 23/2	15.30-17.30	<b>No Class</b> Reserved for make-up		
<b><u>Sunday, February 26 - Friday, March 3</u></b> <b>Long Study Tour to Tallinn/Stockholm</b>				

Monday 6/3	15.30-17.30 Roskilde Hospital	<b>Lecture 8</b> Infectious Diseases	O'Neill: Section on clinical aspects, serious sepsis and septic shock, classical infectious diseases and Malaria (imported diseases) pp 408-416, 417-422	Charlotte
Thursday 9/3	15.30-17.30 Glostrup Hospital	<b>Lecture 9</b> Endocrinology	Hole's: Chapter 11, O'Neil: 7.1-7.3	Sarah
Monday 13/3	15.30-17.30 Roskilde Hospital	<b>Lecture 10</b> Neurology  - Brief anatomy of the central and peripheral nervous system. 12 cranial nerves - Common diseases: - Stroke, headache, epilepsy  If time practical: testing the 12 cranial nerves  <b>CPC I</b>	Hole's: 214-222, Skim 232-254  O'Neill: 225-230 (stroke), 235-236 (epilepsy)  Ford: 118-120, 123, 126-132	Nynne
Thursday 16/3	15.30-17.30 Glostrup Hospital	<b>Lecture 11</b> Psychiatry Introduction to TPC II	TBA	Sarah
Friday 17/3	<b>Study Tour Assignment Due to Canvas by 16.00</b>			
<b>Break</b> Monday, March 20 - Friday, March 24				
Monday 27/3	15.30-17.30 Roskilde Hospital	<b>Lecture 12</b> Pediatrics  <i>CPC I due via Canvas</i> <b>CPC II</b>	On Canvas	Charlotte
Thursday 30/3	15.30-17.30 Roskilde Hospital	<b>Lecture 13</b> OBGYN  - Anatomy & physiology - Menstrual cycle - Pregnancy & birth	Hole Chapter 19 and 20 (until 20.4)	Nynne

Monday 3/4	15.30-17.30 Roskilde Hospital	<b>Lecture 14</b> Global Health  <i>CPC II due via Canvas</i>	On Canvas	Charlotte
Thursday 6/4	15.30-17.30 Roskilde Hospital	<b>Lecture 15</b> Emergency medicine and orthopedics <ul style="list-style-type: none"> <li>- Injuries and treatment in emergency room</li> <li>- Trauma triage and assessment.</li> <li>- Introduction to ABCDE principle</li> <li>- Presentation of joint examination</li> </ul> Cases	Ford: 48-60 (skim) 170-171, 159+ 164-165 Hole's: 126-127, 132-134, 145-163  Ford: Chapter 8 and 9 with focus on joint examination	Nynne
Monday 10/4	14:50 – 15:30 DIS, V10-A11	<b>TEST II</b>		Emilie
	15:30-20:00  Herlev Hospital	<b>Emergency Medicine Simulation Session (EMSS)</b>  <b>Lecture 16:</b> Emergency Medicine <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>	On Canvas	Ditte Madsen Andersen, MD
<b>Break</b> Wednesday, April 12 – Monday, April 17				
Thursday 20/4	15.30-17.30 Glostrup Hospital	<b>Lecture 17</b> Lungs  <b>TPC II</b>	Holes: Chapter 16 and O'Neill: pp. 74-78 + 80-93	Sarah

Monday 24/4	<b>16:00-19:30</b> *Note time change*  Gentofte Hospital Simulation & Training Center	<b>Lecture 18 Clinical Skill Session</b> Introduction to clinical skills: IV insertion, Catheter insertion and Suture  **Course Assistant will establish a meeting time and place **		DIS Instructors
Thursday 27/4	15.30-17.30  Location TBA	<b>Lecture 19</b> Cases	TBA	Nynne and Sarah
Monday 1/5	15.30-17.30	<b>No class</b> Reserved for make-up		
Thursday 4/5	15.30-17.30  DIS, V10-A11	<b>Lecture 20 - Final class</b> Q/A and cases Social		Charlotte, Nynne and Sarah
Tuesday 9/5	15:00-17:00 DIS, TBA	Final Exam **Location DIS, TBA**		DIS Staff