

## 2024 Akita University Faculty of Medicine Syllabus

**Category** : 臨床医学 V (CC1)  
**Course Title** : Respiratory Medicine  
**Eligible Students** : grade 5 Related Course  
**Code** : 71643002-04

### 1. Lead Instructor

Katsutoshi Nakayama (Professor, Department of Respiratory Medicine, 7510)

### 2. Instructors

Katsutoshi Nakayama (Professor, Department of Respiratory Medicine, 7510)  
Kazuhiro Sato (Project Associate Professor, Department of Respiratory Medicine, 7510)  
Masahide Takeda (Lecturer, Department of Respiratory Medicine, 7510)  
Yuji Okuda (Project Assistant Professor, Advanced Research Center for Geriatric Medicine, 7510)  
Sho Sakamoto (Project Assistant Professor, Advanced Research Center for Geriatric Medicine, 7510)

### 3. Course Description Outline(Course Objectives)

#### 1 . Course Objectives

Through medical practice in wards and outpatients, to acquire practical skills such as clinical reasoning, differential diagnosis, clinical policy determination for symptoms and pathophysiology in respiratory medicine.

#### 2 . Course Description Outline(1-1 ~ 1-2, 3-1 ~ 3-7, 4-1 ~ 4-8, 5-1 ~ 5-8, 6-1 ~ 6-2)

Engage actively in practical training as a member of a medical team, supervised by instructors, in order to acquire basic knowledge and skills for clinical care of respiratory diseases. In clinical training, you should collect information by yourselves, extract, list, and interpret patient problems (clinical reasoning), and make discussion and training among other members of the team to make solutions (diagnosis and treatment through problem based learning: PBL).

#### 1) Inpatient medical training(1-1 ~ 1-2, 2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

Join the instructor team and provide medical care to all patients in the ward within the team. Do daily rounds, interviews, physical examinations, extraction of clinical issues, and clinical reasoning. Describe the medical record, examine and decide the treatment policy with your instructor. At the ward meeting, you will present and discuss the cases of the patients in charge and experience evidence-based medicine. In addition, review the literature to gain a deeper understanding of the patient's pathophysiology.

#### 2) Outpatient medical training(1-1 ~ 1-2, 2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

Under the outpatient instructor, you will interview new patients and conduct physical examinations, and together with the instructor, you will write medical records, examine differential diseases, and propose necessary tests. Understand the condition and discuss the treatment policy with the instructor.

#### 3) Examination of bronchoscopy(2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

Before the examination, perform image diagnosis with the instructor, and establish an examination plan. Order examination of the collected sample with the instructor.

#### 4) PowerPoint presentation of clinical cases(3-1 ~ 3-7, 5-1 ~ 5-5, 6-1 ~ 6-2)

Summarize the medical problems of the patient in charge and present it with academic medical evidence. Acquire medical analytical skills, evidence investigative skill and presentation skill.

### 3. Topics and Contents of class/Course Objectives

The skills that CC1 medical students should especially experience in training in respiratory medicine are listed below.

1) Symptomatology(3-1 ~ 3-7, 4-1 ~ 4-8)

(1) Fever, (2) General fatigue, (3) Anorexia, (4) Weight gain / loss, (5) Consciousness disorder, (6) Dehydration, (7) Edema, (8) Cough / sputum, (9) Bloody sputum / hemoptysis, (10) Dyspnea, (11) Chest pain, (12) Pleural effusion, (13) Dysphagia, (14) Lymph node swelling

2) Basic clinical skills(1-1 ~ 1-2, 2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

(1) Patient postural change and transfer  
(2) Skin disinfection  
(3) Airway suction and nebulizer  
(4) Intravenous blood sampling  
(5) Indwelling intravenous catheters  
(6) Central venous catheter (study by observation)  
(7) Arterial blood sampling (study by observation)  
(8) Chest tube drainage (study by observation)  
(9) Create a medical record  
(10) Creating a medical certificate (study by observation)

3) Examination skills(2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

(1) Evaluation of bacteriological examination  
(2) ECG recording  
(3) Ultrasonography of the chest  
(4) Evaluation of SpO2  
(5) Chest X ray examination / CT/ MRI / scintigraphy / bronchoscopy. (study by observation)

4) Surgical skills(2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

(1) Aseptic operation  
(2) Basic suturing and thread removal are possible.  
(3) Disinfection of wounds / gauze exchange

5) Critical care(2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

(1) Emergency judgment from vital signs  
(2) Basic life support  
(3) Advanced life support (study by observation)

6) Practical training with a simulator(3-1 ~ 3-7, 6-1 ~ 6-2)

(1) Practical training with bronchoscope simulator  
(2) Practical training with chest tube drainage simulator

This subject is a lesson subject by a teacher with practical experience.

#### 4. Textbook/Reference Books

内科学（朝倉書店） 内科診断学（南江堂） 呼吸器領域の各種診療ガイドラインまたは診断と治療の手引き [肺癌（金原出版） COPD（メディカルレビュー） 喘息（協和企画） 特発性肺線維症（南江堂） 成人肺炎（メディカルレビュー）]

#### 5. Assessment

態度、口頭試問、ミニ CEX、出席、学生症例プレゼンテーションでの発表など。

Attitude, oral examination, mini CEX, attendance, PowerPoint presentation of clinical cases

**6. Out of Class Study/Message**

指定の教科書・参考書等に則り予習をし、同教科書・参考書および実習時に指導された内容をもとに復習すること。

Prepare for the lesson according to the designated textbook/ reference book, and review based on the textbook / reference book and what was taught during the training.

呼吸器内科学 臨床実習

Schedule		Contents of Class
1	Mon [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Orientation (Conference room on the 7th floor of the 2nd ward)</li> <li>• 09:30 - Patient introduction (7th floor of 2nd ward) / Medical history/physical findings (outpatient department of respiratory medicine)</li> <li>• 15:00 - Ward conference (Conference room on the 7th floor of the 2nd ward)</li> </ul>
2	Tue [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 11:00 - Bronchoscopic training (Simulation Education Center)</li> <li>• 14:00 - Bronchoscopy (Central radiation department fluoroscopy room) / Chest X-ray interpretation seminar (Conference room on the 7th floor of the 2nd ward)</li> </ul>
3	Wed [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 11:00 - Oxygen therapy seminar (Conference room on the 7th floor of the 2nd ward)</li> <li>• 14:00 - Case study / professor round (Conference room on the 7th floor of the 2nd ward / 7th floor of the 2nd ward)</li> </ul>
4	Thu [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 11:00 - Blood gas/ventilator seminar (Conference room on the 7th floor of the 2nd ward)</li> <li>• 13:30 - Bronchoscopy (Central radiation department fluoroscopy room)</li> <li>• 17:30 - 4 departments joint conference (Radiology conference room)</li> </ul>
5	Fri [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 11:00 - Thoracentesis training (Simulation education center)</li> <li>• 14:20 - Integrated Clinical Clerkship Conference 1</li> </ul>
6	Mon [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Case study meeting for patients in charge (Conference room on the 7th floor of the 2nd ward) / Medical history/physical findings (outpatient department of respiratory medicine)</li> <li>• 14:30 - COPD/Asthma Seminar (Conference Room on the 7th floor of the 2nd ward)</li> <li>• 15:00 - Ward conference (Conference room on the 7th floor of the 2nd ward)</li> </ul>
7	Tue [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 11:00 - Cough/sputum seminar (Conference room on the 7th floor of the 2nd ward)</li> <li>• 14:00 - Bronchoscopy (Central radiation department fluoroscopy room) / Pneumonia/interstitial pneumonia seminar (Treatment room on the 7th floor of the 2nd ward)</li> </ul>
8	Wed [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 14:00 - Case study / professor round (Conference room on the 7th floor of the 2nd ward / 7th floor of the 2nd ward)</li> </ul>
9	Thu [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 11:00 - Lung cancer seminar (Conference room on the 7th floor of the 2nd ward)</li> <li>• 13:30 - Bronchoscopy (Central radiation department fluoroscopy room) / Respiratory case presentation (Conference room on the 7th floor of the 2nd ward)</li> <li>• 17:30 - 4 departments joint conference (Radiology conference room)</li> </ul>
10	Fri [ 8:30 - 17:00 ] Subtitle Instructor スタッフ全員	<ul style="list-style-type: none"> <li>• 08:30 - Student rounds (7th floor of 2nd ward)</li> <li>• 09:00 - Ward medical treatment (7th floor of 2nd ward)</li> <li>• 10:00 - Clinical reasoning seminar (Conference room on the 7th floor of the 2nd ward)</li> <li>• 14:20 - Integrated Clinical Clerkship Conference 1</li> </ul>