

## 2025 Akita University Faculty of Medicine Syllabus

**Category** : 臨床医学 VI (CC2)  
**Course Title** : Respiratory Medicine  
**Eligible Students** : grade 5 Elective Course  
**Code** : 71644006-05

### 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 patient care, acquire skills related to the symptoms and pathophysiology of respiratory diseases, differential diagnosis, examinations and treatment planning decisions. Experience the process of diagnosis and treatment of patients with respiratory diseases as a member of a clinical team. Understand respirology through lectures and clinical clerkship. Learn about related professionalism, ethics, medical behavioral science, medical safety, healthcare systems, and EBM.

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

Based on the experience from CC1, CC2 will conduct clinical clerkship more professionally and actively practice as a member of the medical team, as well as acquire basic knowledge and skills to provide medical treatment for respiratory diseases. In clinical training, the student will plan diagnosis and treatment based on clinical reasoning and information collected by oneself. (Problem based learning: PBL).

##### 1) Medical care for inpatients(1-1 ~ 1-2, 2-1 ~ 2-8, 3-1 ~ 3-7, 4-1 ~ 4-8)

Treat inpatients with a team of instructors. Through daily rounds, interviews, and physical examinations, clinical problems are ascertained and examined. Describe the medical record with the instructor and decide the examination and treatment plan. Participate in conferences, give presentations and discussions on each case, and provide evidence-based medical care.

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

Conduct medical history and physical examinations of new patients with the instructor. Describe medical records, examine the differential diseases, and decide the examination and treatment plan.

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

Study by observation and assist with bronchoscopy. Before the examination, perform image diagnosis with the instructor, and establish an examination plan.

Request examination of the collected sample with the instructor.

##### 4) Case presentation(3-1 ~ 3-7, 5-1 ~ 5-5, 6-1 ~ 6-2)

Summarize the medical problems of the patient and present them with academic medical evidence. Acquire medical analytical, investigative and presentation skills.

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

The skills that CC2 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 SpO<sub>2</sub>  
(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 (Respiratory Medicine)

| Schedule |  | Contents of Class  |
|----------|--|--|
| 1        | Mon [ 8:30 - 17:00 ]<br>Subtitle Clinical clerkship<br>Instructor 各診療チーム | • Orientation: Conference room on the 7th floor of the 2nd ward(1st week only)<br>• Clinical clerkship |
| 2        | Tue [ 8:30 - 17:00 ]<br>Subtitle Clinical clerkship<br>Instructor 各診療チーム | • Clinical clerkship   |
| 3        | Wed [ 8:30 - 17:00 ]<br>Subtitle Clinical clerkship<br>Instructor 各診療チーム | • Clinical clerkship   |
| 4        | Thu [ 8:30 - 17:00 ]<br>Subtitle Clinical clerkship<br>Instructor 各診療チーム | • Clinical clerkship   |
| 5        | Fri [ 8:30 - 17:00 ]<br>Subtitle Clinical clerkship<br>Instructor 各診療チーム | • Clinical clerkship   |