

2026 Akita University Faculty of Medicine Syllabus

Category	: 臨床医学 II
Course Title	: Rehabilitation Medicine
Eligible Students	: grade 3 Related Course
Code	: 71633012
Schedule	: week 23 ~ week 24
Credits	: 1

1. Lead Instructor

Yuji Kasukawa (Associate Professor, Department of Rehabilitation Medicine, 6213, Office Hour: 9 : 00-17 : 00)

2. Instructors

Yuji Kasukawa (Associate Professor, Department of Rehabilitation Medicine, 6213, Office Hour: 9 : 00-17 : 00)

Daisuke Kudo (Assistant Professor, Department of Rehabilitation Medicine, 6148, Office Hour: 9 : 00-17 : 00)

Michio Hongo (Professor, School of Health Science, Physical therapy, 6532)

Naoyuki Takeuchi (Professor, School of Health Science, Physical therapy)

Masahiro Satake (Professor, School of Health Science, Physical therapy)

Masahiko Wakasa (Professor, School of Health Science, Physical therapy)

Yu Kume (Professor, School of Health Science, Occupational Therapy)

Sachiko Uemura (Associate Professor, School of Health Science, Physical therapy)

Ryoko Tomizawa (Associate Professor, School of Health Science, Occupational Therapy)

Akiko Misawa (Part-time Lecturer, Akita Prefectural Center on Development and Disability)

3. Course Description Outline(Course Objectives)

【Course Objectives】

Understand and deepen your interest in the holistic approach through learning the history and basic concepts of rehabilitation, the actual practice of rehabilitation medicine, and various technologies. In addition, related professionalism, multidisciplinary collaboration, ethics, medical behavioral science, medical safety, medical law (system), and EBM.

【Outline】

D-2-4-1 Can outline the treatment of cerebrovascular disorders and rehabilitation medicine in the acute, recovery, and maintenance stages (life stage). (2-6、 3-3、 4-1 ~ 4-8)

D-2-4-9 Congenital and perinatal brain disorders Explain the etiology, disease type, symptoms and rehabilitation of cerebral palsy. (2-6、 3-3、 4-1 ~ 4-8)

D-4-3 Symptoms

- Motor paralysis/muscle weakness (3-2,4-2)

- Joint pain/swelling (3-2,4-2)

- Lower back pain (3-2,4-2)

D-4-4(1) Common diseases of the locomotor system

- Explain the diagnosis and treatment of spinal cord injury. (3-1 ~ 3-7,4-1 ~ 4-4)

- Can outline rehabilitation for musculoskeletal diseases. (3-3,3-4,4-3,4-4)

D-5-4(1) Heart failure

- Explain the diagnosis and non-pharmacological treatment (including cardiac rehabilitation) of acute and chronic heart failure. (2-6、 3-3、 4-1 ~ 4-8)

D-5-4(2) Ischemic heart disease

- Explain cardiac rehabilitation for ischemic heart disease. (2-6、 3-3、 4-1 ~ 4-8)

D-6-4(3) Pulmonary disease causing obstructive/restrictive ventilation disorder

- Explain respiratory rehabilitation for chronic obstructive pulmonary disease (COPD). (2-6、 3-3、 4-1 ~ 4-8)

E-4-3(2) Rheumatoid arthritis and related diseases

- Explain the treatment and rehabilitation of rheumatoid arthritis. (2-6、 3-3、 4-1 ~ 4-8)

E-8-1 Characteristics of Aging and the Elderly (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)

- Students learn issues related to rehabilitation of diseases and conditions specific to the elderly, nursing care, and medical care at the end of life.
- Explain the concepts of frailty, sarcopenia, and locomotive syndrome, their coping strategies, and prevention.
- It is possible to evaluate gait disturbance and falls, perform differential diagnosis, and implement fall prevention and rehabilitation according to the cause.

F-2-14 Rehabilitation medicine

- Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)

F-2-15 Home medical care and nursing care.

- Learn the basics of home medical care and nursing care. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)

Be able to explain related professionalism, multidisciplinary collaboration, ethics, medical behavioral science, medical safety, medical law (system), and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)

4. Textbook/Reference Books

Rehabilitation medicine/medical core text 2nd edition (supervised by the Japan Society of Rehabilitation Medicine, published by Igaku Shoin, price 4,400 yen (main text 4,000 yen + 10% tax)

Orthopedic postoperative physical therapy program 3rd edition (Medical View)

5. Assessment

Standardized test, formative test, attendance status

For the formation test, a score rate of 60% or higher is considered a pass.

If you do not attend more than two-thirds of the lectures, you will not be eligible to take the third-year standardized examination.

6. Out of Class Study/Message

Basically, all lectures are compulsory, and attendance is confirmed.

On-demand (E-learning) will be attended by conducting a confirmation test.

It will be a joint lecture by third-year students majoring in physical therapy and occupational therapy in the School of Medicine and School of Health Sciences.

Please take a seat in the designated area in order to confirm your attendance.

Lecture materials will be uploaded to Web Class, so please obtain them in advance and prepare for the lecture.

Recording of lecture content is prohibited.

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
1	10/20 (Tue)	1-2	Lecture	<p>Theme: General remarks on rehabilitation medicine 【Learning goal】 Learn the basics of rehabilitation. Understand the composition of the rehabilitation team and be able to explain the role of the physician. Disability can be explained by dividing it into body function/body structure, activity, and participation in the International Classification of Functioning, Disabilities. Ability to assess impairments and activities of daily living (ADL).</p> <p>F-2-14 Rehabilitation medicine • Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)</p>	Yuji Kasukawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
2	10/20 (Tue)	3-4	Lecture	<p>Theme: General remarks on physical therapy 【Learning goal】 Can outline physical therapy. 【Outline】 F-2-14 Rehabilitation medicine • Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Masahiko Wakasa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
3	10/20 (Tue)	5-6	Lecture	<p>Theme: General remarks on occupational therapy 【Learning goal】 Can outline occupational therapy. 【Outline】 D-4-3 Symptoms • Motor paralysis/muscle weakness (3-2,4-2) • Joint pain/swelling (3-2,4-2) • Low back pain (3-2,4-2) F-2-14 Rehabilitation medicine • Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Ryoko Tomizawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
4	10/20 (Tue)	7-8	Lecture	<p>Theme: Physical therapy 【Learning goal】 Can outline physical therapy. 【Outline】 F-2-14 Rehabilitation medicine • Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Yuji Kasukawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
5	10/20 (Tue)	9-10	Lecture	<p>Theme: Pediatric disorders</p> <p>【Learning goal】 Explain the etiology, disease type, symptoms, and rehabilitation of cerebral palsy.</p> <p>【Outline】 D-2-4-9 Congenital and perinatal brain disorders: Explain the etiology, disease type, symptoms, and rehabilitation of cerebral palsy. (2-6、 3-3、 4-1 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Akiko Misawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
6	10/21 (Wed)	1-2	Lecture	<p>Theme: Physical therapy details</p> <p>【Learning goal】 Can outline physical therapy.</p> <p>【Outline】 D-4-3 Symptoms</p> <ul style="list-style-type: none"> • Motor paralysis/muscle weakness (3-2,4-2) • Joint pain/swelling (3-2,4-2) • Low back pain (3-2,4-2) <p>D-4-4-(1) Common diseases of the locomotor system</p> <ul style="list-style-type: none"> • Can outline rehabilitation for musculoskeletal diseases. (3-3,3-4,4-3,4-4) <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Sachiko Uemura	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
7	10/21 (Wed)	3-4	Lecture	<p>Theme: Occupational Therapy Details / Psychiatric rehabilitation</p> <p>【Learning goal】 Can outline occupational therapy.</p> <p>【Outline】 D-4-4-(1) Common diseases of the locomotor system</p> <ul style="list-style-type: none"> • Can outline rehabilitation for psychiatric diseases.(3-3,3-4,4-3,4-4) <p>F-2-14 Rehabilitation medicine</p> <ul style="list-style-type: none"> • Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8) <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Ryoko Tomizawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room

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8	10 / 21 (Wed)	5-6	Lecture	<p>Theme: Cerebrovascular accident</p> <p>【Learning goal】</p> <p>Outline rehabilitation medicine for acute, recovery, and maintenance (lifetime) stages of cerebrovascular disorders.</p> <p>【Outline】</p> <p>D-2-4-1 Can outline the treatment of cerebrovascular disorders and rehabilitation medicine in the acute, recovery, and maintenance stages (life stage). (2-6、 3-3、 4-1 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Naoyuki Takeuchi	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
9	10 / 21 (Wed)	7-8	Lecture	<p>Theme: Locomotor disorders</p> <p>【Learning goal】</p> <p>Can outline rehabilitation for musculoskeletal diseases.</p> <p>【Outline】</p> <p>D-4-3 Symptoms</p> <ul style="list-style-type: none"> • Motor paralysis/muscle weakness (3-2,4-2) • Joint pain/swelling (3-2,4-2) • Lower back pain (3-2,4-2) <p>D-4-4-(1) Common diseases of the locomotor system</p> <ul style="list-style-type: none"> • Can outline rehabilitation for musculoskeletal diseases.(3-3,3-4,4-3,4-4) <p>E-8-1 Characteristics of Aging and the Elderly (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)</p> <ul style="list-style-type: none"> • Students learn issues related to rehabilitation of diseases and conditions specific to the elderly, nursing care, and medical care at the end of life. • Can explain the concept of frailty, sarcopenia, and locomotive syndrome, their countermeasures, and prevention. • It is possible to evaluate gait disturbance and falls, perform differential diagnosis, and implement fall prevention and rehabilitation according to the cause. <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Michio Hongo	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room

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	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
10	10 / 21 (Wed)	9-10	Lecture	<p>Theme: Sports injury 【Learning goal】 Can outline rehabilitation for musculoskeletal diseases (sports injuries/disorders). 【Outline】 D-4-3 Symptoms ・ Joint pain/swelling (3-2,4-2) ・ Lower back pain (3-2,4-2) D-4-4-(1) Common diseases of the locomotor system ・ Can outline rehabilitation for musculoskeletal diseases.(3-3,3-4,4-3,4-4)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Daisuke Kudo	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
11	10 / 22 (Thu)	1-2	Lecture	<p>Theme: Respiratory rehabilitation 【Learning goal】 Explain pulmonary rehabilitation. 【Outline】 D-6-4-(3) Pulmonary disease causing obstructive/restrictive ventilation disorder ・ Explain respiratory rehabilitation for chronic obstructive pulmonary disease (COPD). (2-6、 3-3、 4-1 ~ 4-8)</p> <p>Be able to explain related professionalism, multidisciplinary collaboration, ethics, medical behavioral science, medical safety, medical law (system), and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Masahiro Satake	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
12	10 / 22 (Thu)	3-4	Lecture	<p>Theme: Internal failure 【Learning goal】 Explain the concept and adaptation of rehabilitation for internal disorders. 【Outline】 D-5-4-(1) Heart failure ・ Explain the diagnosis and non-pharmacological treatment (including cardiac rehabilitation) of acute and chronic heart failure. (2-6、 3-3、 4-1 ~ 4-8) D-5-4-(2) Ischemic heart disease ・ Explain cardiac rehabilitation for ischemic heart disease. (2-6、 3-3、 4-1 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Naoyuki Takeuchi	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
13	10 / 22 (Thu)	5-6	Lecture	<p>Theme: Cancer rehabilitation</p> <p>【Learning goal】 Explain the concept and adaptation of rehabilitation medicine for cancer.</p> <p>【Outline】 F-2-14 Rehabilitation medicine • Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、 2-5 ~ 2-7、 3-2 ~ 3-7、 4-7 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Naoyuki Takeuchi	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
14	10 / 22 (Thu)	7-8	Lecture	<p>Theme: Low back pain</p> <p>【Learning goal】 Can explain rehabilitation for low back pain.</p> <p>【Outline】 D-4-3 Symptoms • Motor paralysis/muscle weakness (3-2,4-2) • Lower back pain (3-2,4-2) D-4-4-(1) Common diseases of the locomotor system • Outline the rehabilitation of locomotorium diseases. (3-3,3-4,4-3,4-4)</p> <p>Be able to explain related professionalism, multidisciplinary collaboration, ethics, medical behavioral science, medical safety, medical law (system), and EBM. (1-1,12,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Michio Hongo	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
15	10 / 22 (Thu)	9-10	Lecture	<p>Theme: Rheumatoid arthritis</p> <p>【Learning goal】 Explain rehabilitation for rheumatoid arthritis.</p> <p>【Outline】 E-4-3-(2) Rheumatoid arthritis and related diseases • Explain the treatment and rehabilitation of rheumatoid arthritis. (2-6、 3-3、 4-1 ~ 4-8)</p> <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Michio Hongo	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
16	10 / 23 (Fri)	1-2	Lecture	<p>Theme: Preventing Long-Term Care Needs and Frailty 【Learning Objectives】 Explain rehabilitation for preventing long-term care needs and frailty. 【Overview】 E-8-1 Aging and Characteristics of Older Adults (2-1 to 2-3, 2-5 to 2-7, 3-2 to 3-7, 4-7 to 4-8) ・ Learn about rehabilitation for diseases and conditions specific to the elderly, caregiving, and issues related to medical care in the final stages of life. F-2-14 Rehabilitation ・ Learn the fundamentals of rehabilitation. (2-1 to 2-3, 2-5 to 2-7, 3-2 to 3-7, 4-7 to 4-8) Explain related professionalism, multidisciplinary collaboration, ethics, medical behavioral science, medical safety, medical law (systems), and EBM. (1-1, 1-2, 2-1 to 2-8, 3-6, 4-8, 5-1 to 5.5, 6-1, 6-2)</p>	Yu Kume	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
17	10 / 23 (Fri)	3-4	Lecture	<p>Theme: Nursing care / welfare 【Learning goal】 Explain the role of rehabilitation in collaboration with welfare and nursing care. 【Outline】 F-2-15 Home medical care and nursing care ・Learn the basics of home medical care and nursing care. (2-1 ~ 2-3、2-5 ~ 2-7、3-2 ~ 3-7、4-7 ~ 4-8) Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Yuji Kasukawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
18	10 / 23 (Fri)	5-6	Lecture	<p>Theme: Prosthetic limbs / orthoses 【Learning goal】 Can outline main walking aids, wheelchairs, artificial limbs (arms/legs) and braces. 【Outline】 F-2-14 Rehabilitation medicine ・ Learn the basics of rehabilitation medicine. ・ Can outline main walking aids, wheelchairs, artificial limbs (arms and legs) and braces. (2-1 ~ 2-3、2-5 ~ 2-7、3-2 ~ 3-7、4-7 ~ 4-8) Be able to explain related professionalism, multidisciplinary collaboration, ethics, medical behavioral science, medical safety, medical law (system), and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p>	Yuji Kasukawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
19	10/23 (Fri)	7-8	Lecture	<p>Theme: Spinal cord injury</p> <p>【Learning goal】 Can outline rehabilitation for spinal cord injury.</p> <p>【Outline】 D-4-4-(1) Common diseases of the locomotor system <ul style="list-style-type: none"> Explain the diagnosis and treatment of spinal cord injury. (3-1 ~ 3-7,4-1 ~ 4-4) F-2-14 Rehabilitation medicine <ul style="list-style-type: none"> Learn the basics of rehabilitation medicine. (2-1 ~ 2-3、2-5 ~ 2-7、3-2 ~ 3-7、4-7 ~ 4-8) <p>Explain related professionalism, interdisciplinary collaboration, ethics, medical behavioral science, medical safety, and EBM. (1-1,1-2,2-1 ~ 2-8,3-6,4-8,5-1 ~ 5.5,6-1,6-2)</p> </p>	Yuji Kasukawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room
20	10/23 (Fri)	9-10	Formative assesment	<p>Theme: Formation test</p> <p>【Learning goal】 A formation test is used to check the degree of achievement of the learning content.</p> <p>Learning goal: To confirm the degree of achievement of the learning content through the formative examination.</p>	Yuji Kasukawa	医学系研究棟 4階 6講義室 Medical Research Building 4th Floor 6 Lecture Room