

## 2024 Akita University Faculty of Medicine Syllabus

**Category** : 臨床医学 V (CC1)  
**Course Title** : Orthopedics • Rehabilitation Medicine  
**Eligible Students** : grade 5 Related Course  
**Code** : 71643002-11

### 1. Lead Instructor

Naohisa Miyakoshi (Professor, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)

### 2. Instructors

Naohisa Miyakoshi (Professor, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Michio Hongo (Professor, School of Health Science, Physical therapy, 6532)  
Yuji Kasukawa (Associate Professor, Rehabilitation Medicine, 6148, Office Hour: 9 : 00-17 : 00)  
Koji Nozaka (Associate Professor, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Hiroyuki Tsuchie (Lecturer, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Hiroyuki Nagasawa ((IGAKUBU) Lecturer, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Hidetomo Saito ((IGAKUBU) Lecturer, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Hiroaki Kijima ((IGAKUBU) Lecturer, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Tsuyoshi Shirahata (Assistant Professor, Advanced Emergency and Critical Care Center, 6148, Office Hour: 9 : 00-17 : 00)  
Daisuke Kudo (Assistant Professor, Rehabilitation Medicine, 6148, Office Hour: 9 : 00-17 : 00)  
Ryota Kimura (Assistant Professor, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)  
Yuichi Ono (Assistant Professor, Department of Orthopedic Surgery, 6148, Office Hour: 9 : 00-17 : 00)

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

#### *Aim of class*

Acquire basic orthopedic knowledge, attitudes, and skills so that, as a physician, you can respond appropriately to orthopedic-related diseases and injuries. The classes mainly focus on acquiring basic knowledge and basic clinical techniques. Also, deepen your interest in understanding the holistic approach through learning about rehabilitation medicine and various technologies. Also, learn about related professionalism, ethics, medical behavioral science, medical safety, medical law (system), and EBM.

#### *Outline of class*

Focusing on the following items shown in the medical education model core curriculum, learn through ward practice, outpatient practice, surgery practice, and lectures.

#### A-1-1 Medical ethics and bioethics

- Be able to outline ethical issues related to clinical ethics and life and death. (1-1)

#### A-1-2 Patient-centered perspective

- Explain the significance and necessity of informed consent and informed assent. (1-2)

#### A-1-3 Responsibilities and discretion as a doctor

- Be able to build a relationship of trust with patients and their families in clinical practice. (1-1, 1-2, 2-1 to 2-7)

#### A-2-1 Ability to explore and solve problems

- Discover specific methods to solve problems and solve them. (5-1 to 5-5)

#### A-2-2 How to study

- Can extract important matters and problems from the content of lectures, domestic and foreign textbooks and papers, search information, etc. (5-1 ~ 5.5, 6-1, 6-2)

#### A-3-1 Holistic practical ability

- Properly take medical history, build a good relationship with the patient, and provide patient education as necessary. (2-1 ~ 2-8, 4-1 ~ 4-5)

#### A-4-1 Communication

- You can realize good human relations through communication. (2-1 ~ 2-8,4-7)

#### A-4-2 Relationship between patient and doctor

- Understand the confidentiality of patient information and the importance of providing information to patients, etc., and be able to handle them appropriately. (1-1,1-2,3-5,4-5)

#### A-5-1 Patient-centered team medical care

- Be able to participate as a member of the team by explaining the composition of the medical team, the division of roles of each member, and the system of cooperation and responsibility. (2-5,2-6,3-6,4-7)

#### A-6-1 Ensuring safety

- Be able to concretely explain that multi-professionals are involved in multi-stage medical work content in actual medical care. (2-5,2-6,3-5,3-6,4-5,4-7)

#### A-6-2 Coping with and preventing medical accidents

- Explain the difference between medical accidents and complications. (2-5,2-6,3-5,3-6,4-7)

#### A-6-3 Health and safety of healthcare workers

- Explain the necessity of standard precautions and implement them. (3-4,3-5,4-4,4-6)

#### D-4-2 Basics of diagnosis and examination

- Explain the manual examination according to the pathology of the musculoskeletal system. (3-3,4-2)
- Outline the indications for musculoskeletal imaging. (3-3,5-3)

#### 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)

#### D-4-4-(1) Disease

- Explain the diagnosis and initial treatment of limb/spinal trauma. (3-3,4-2,4-3,4-6)
- Outline the rehabilitation of musculoskeletal diseases. (3-3,3-4,4-3,4-4)

#### F-2-14 Rehabilitation

- Explain the concept and adaptation of rehabilitation. (3-3,3-7)
- Understand the composition of the rehabilitation team and explain the role of the doctor. (4-7,4-8)
- Can outline physical therapy and occupational therapy. (3-3,3-7)

Explain related professionalism, 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)

#### *How to proceed with the class*

##### 1. Ward practice

Achieve the above goals through 1-2 case studies each.

Examination of imaging findings, medical interview and physical examination will be performed, presentation will be made with reference to literature, and guidance will be provided by the instructor.

Discuss the diagnostic process and indications for surgery, but be careful not to second-hand the reference book.

During the practical training period, examine the case with the instructor. Offer it if necessary.

##### 2. Outpatient practice

Practice the basics of medical interviews, physical examinations, interpretation of image findings, and actual rehabilitation. Observe how preceptors and therapists treat patients and learn how to treat them.

##### 3. Surgery practice

Participate in surgery, deepen understanding of local anatomy, perform medical actions (simple suturing, etc.) approved by a

student doctor under the guidance of a doctor, and strive to acquire basic clinical techniques.

#### 4. Textbook/Reference Books

##### *Orthopedics*

Standard Orthopedic Surgery (Igaku Shoin)  
TEXT Orthopedic Surgery (Nanzando)  
New Orthopedics and Traumatology (Bunkodo)  
Orthopedic MOOK Series (Kanehara Publishing)  
New Illustrated Clinical Orthopedic Course (Medical View)  
Illustrated Orthopedic Diagnosis and Treatment Course (Medical View)  
The latest orthopedic system (Nakayama Shoten)

##### 【Department of Rehabilitation】

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

Those who do not attend the clinical training without permission or who do not submit a report will not be deemed to have completed the clinical training.

Submit the report by email as an attachment in Word or PDF format.

Submission email address: seikei@doc.med.akita-u.ac.jp

Grades will be evaluated by CC-EPOC. Evaluation items are learning attitude before training, doctor-patient relationship, time management, clothes, attitude, skills related to inter-professional cooperation, medical attitude and willingness to learn, attitude toward medical care and skills, and comprehensive evaluation.

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

##### 【The meeting place】

- : Conference room on the 8th floor of Ward 1
- \*: Orthopedic outpatient clinic
  - : Conference room on the 2nd floor of the North Clinical Building
  - : Fluoroscopy room, Central Radiology Department
  - : Rehabilitation department outpatient

##### *Other precautions*

##### 1. Punctuality

8:00 a.m. Monday: Meet at the conference room on the 2nd floor of the North Clinical Building  
Tuesday, Wednesday, Thursday, Friday 8:30 am: Meet at the conference room on the 8th floor of Ward 1  
Preparations for the case study should be completed by then.

##### 2. Report

Create a report (summarize on the prescribed report form) for one of the cases you have been in charge of, and submit it by e-mail within two weeks after the end of the practical training.

##### 3. Consider clinical attire.

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Schedule		Contents of Class
1	<b>Mon [ 8:00-17:00 ]</b> <b>Subtitle</b> Orientation, ward practice, general rounds, abstract reading <b>Instructor</b> Miyakoshi, Hongo, Kasukawa, Nozaka, Nagasawa, Tsuchie	<i>At 8:00 in the morning, gather at the conference room on the 2nd floor of the North Clinical Building</i> Case review meeting Orientation Lecture: Fracture Ward training/outpatient training <b>【afternoon】</b> Pre- and postoperative conferences Total rounds Excerpt reading
2	<b>Tue [ 8:30-17:00 ]</b> <b>Subtitle</b> Mini lecture, ward training, surgery training, outpatient training <b>Instructor</b> Hongo, Kasukawa, Nozaka, Saito, Shirahata	<i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Lecture: How to read plain radiographs of bones and joints Ward training/Outpatient training/Surgery training <b>【afternoon】</b> Rehabilitation practice Outpatient practice/Surgery practice
3	<b>Wed [ 8:30-17:00 ]</b> <b>Subtitle</b> Mini lecture, ward training, outpatient training <b>Instructor</b> Miyakoshi, Nagasawa Shirahata, Kudo, Kimura	<i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Case announcement Thread knot practice Ward training/outpatient training <b>【afternoon】</b> Preparation for case presentation Lecture: Hand Surgery Diseases Spine examination
4	<b>Thu [ 8:30-17:00 ]</b> <b>Subtitle</b> Mini lecture, ward training, surgery training, outpatient training <b>Instructor</b> Miyakoshi, Nozaka, Saito, Kijima	<i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Case announcement Lecture: Bone Metabolism Ward training/Outpatient training/Surgery training <b>【afternoon】</b> Outpatient practice/Surgery practice Lecture: Hip joint disease
5	<b>Fri [ 8:30-17:00 ]</b> <b>Subtitle</b> Mini lecture, ward training, surgery training, outpatient training <b>Instructor</b> Nagasawa, Kijima	<i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Case announcement Lecture: Sports Injuries Ward training/Outpatient training/Surgery training * Gypsum winding practice
6	<b>Mon [ 8:00-17:00 ]</b> <b>Subtitle</b> Mini-lecture, ward training, outpatient training, general rounds, abstract reading <b>Instructor</b> Miyakoshi, Hongo, Kasukawa, Nozaka, Nagasawa, Kudo	<i>At 8:00 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Case review meeting Case announcement Lecture: Spinal Cord Injury Ward training/outpatient training <b>【afternoon】</b> Total rounds Excerpt reading
7	<b>Tue [ 8:30-17:00 ]</b> <b>Subtitle</b> Mini-lecture, ward training, surgery tour, outpatient training <b>Instructor</b> Hongo, Kasukawa, Nozaka, Saito, Shirahata	<i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Case announcement Ward training/Outpatient training/Surgery training <b>【afternoon】</b> Rehabilitation practice Outpatient practice/Surgery practice
8	<b>Wed [ 8:30-17:00 ]</b> <b>Subtitle</b> Mini-lecture, ward training, outpatient training <b>Instructor</b> Nagasawa, Shirahata, Kudo, Kimura	<i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i> Case announcement Lecture: brachial plexus injury Ward training/outpatient training <b>【afternoon】</b> Lecture: Skin flap in orthopedic surgery Spine examination

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9	Thu [ 8:30-17:00 ] Subtitle Mini-lecture, ward training, surgery tour, outpatient training Instructor Nozaka, Saito, Kijima	<p><i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i></p> <p>Case announcement Lecture: Severe extremity trauma Ward training/Outpatient training/Surgery training 【afternoon】 Outpatient practice/Surgery practice Lecture: Reconstruction of lower extremity function</p>
10	Fri [ 8:30-17:00 ] Subtitle Mini-lecture, ward training, surgery tour, outpatient training Instructor Nagasawa, Kijima	<p><i>At 8:30 in the morning, gather at the conference room on the 8th floor of Ward 1</i></p> <p>Case announcement Lecture: Pediatric Elbow Joint Trauma Ward training/Outpatient training/Surgery training</p>