

## 2025 Akita University Faculty of Medicine Syllabus

<b>Category</b>	: 臨床医学 II
<b>Course Title</b>	: (Oncology) - Oncology - - 臨床腫瘍学概論 -
<b>Eligible Students</b>	: grade 3 Related Course
<b>Code</b>	: 71633016
<b>Schedule</b>	: week 31 ~ week 35
<b>Credits</b>	: 0.5

### 1. Lead Instructor

Hiroyuki Shibata (Professor, Clinical Oncology, 6262)

### 2. Instructors

Hiroyuki Shibata (Professor, Clinical Oncology, 6262)

Koji Fukuda (Lecturer, Clinical Oncology, 6263)

Daiki Taguchi (Assistant Professor, Clinical Oncology, 6263)

Naoki Matsuo (Part-time Lecturer, Sotoasahikawa Clinic)

Tadahisa Fukui (Part-time Lecturer, Department of Clinical Oncology, Yamagata Faculty of Medicine, Yamagata University)

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

Understanding behavior of caregivers, ethical issues, preservation of patient safety, clinical evidence and medical & social systems. Students will obtain knowledge of the underlying mechanisms of carcinogenesis and physical conditions of cancer patients, as well as understand how to nurse and treat cancer patients. (1-1,1-2,3-1 ~ 3-7)

Specifically, the following topics will be covered over the course:

1. Importance of medical science and ethical issues (1-1)
2. Molecular biology of cancer to practice cancer genome-based medicine (3-1,3-2)
3. Cancer immunology and immune-therapy (3-1,3-2)
4. Pathways to carcinogenesis (3-1,3-2)
5. Symptoms and diagnosis of cancer (3-3)
6. End of life care (1-2,3-6)
7. Death of a human being (1-2)
8. Basic understanding of pharmacology of cancer drugs (3-3,3-7)
9. Palliative care of cancer patients (3-3)

### 4. Textbook/Reference Books

Cancer; Principles & Practice of Oncology, 9th edition (Wolters Kluwer/ Lippincott Williams & Wilkins)

### 5. Assessment

Attendance of more than 66% and a short test

### 6. Out of Class Study/Message

Further study: Read the recommended textbooks; preview and review lectures.

Students are encouraged to ask questions, either in person or by email.

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
1	1 / 9 (Fri)	1-2	Lecture	Theme: Cancer in Japan 1. Prevalence and mortality rate from the annual reports  2. Cancer risks: smoking, alcohol, nutrition and lifestyle 3. Regional features of cancer in northern northeast Japan 4. Cancer biology: chromosomal analysis and DNA sequencing 5. Virus-induced cancers 6. Cancer immunology 7. Autonomous growth differences between benign and malignant tumors 8. Cancer causes: genetic alterations 9. What is a tumor? Its symptoms and phenotypes. 10. Grading of cancers: degree of differentiation, clinical staging 11. Terminology: dysplasia, carcinoma in situ, advanced cancer, early cancer, abnormality, multiplicity	Koji Fukuda	医学系研究棟 4 階 6 講義室
2	1 / 9 (Fri)	3-4	Lecture	Theme: Mechanisms of cancer drugs 1. How to diagnose and treat cancers 2. What is metastasis? 3. Indication of cancer drugs, how to use them, and adverse effects. 4. Pharmacological actions of cytotoxic agents, molecular targeted drugs and immune-check point inhibitors. 5. Biological treatment of cancers	Daiki Taguchi	医学系研究棟 4 階 6 講義室
3	1 / 16 (Fri)	1-2	Lecture	Theme: Chemotherapy of solid tumor 1 (Gastric cancer) Basic and clinical features, diagnosis and treatment of gastric cancer. 1. Symptoms 2. Staging 3. Laboratory examinations 4. Imaging 5. Pathology 6. Comprehensive treatment 7. Roles of drugs 8. Biological treatments	Hiroyuki Shibata	医学系研究棟 4 階 6 講義室
4	1 / 16 (Fri)	3-4	Lecture	Theme: Chemotherapy of solid tumor 2 (Colorectal cancer) Basic and clinical features, diagnosis and treatment of colorectal cancer. 1. Symptoms 2. Staging 3. Laboratory examinations 4. Imaging 5. Pathology 6. Comprehensive treatment 7. Roles of drugs 8. Biological treatments	Hiroyuki Shibata	医学系研究棟 4 階 6 講義室

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
5	1 / 23 (Fri)	1-2	Lecture	Theme: Adverse events and supportive care 1. Practice of chemotherapy 2. Supportive care of cancer 3. Dose-response curve 4. Pharmacokinetics and pharmacodynamics 5. ADME (absorption, distribution metabolism, excretion)	Tadahisa Fukui	医学系研究棟 4 階 6 講義室
6	1 / 23 (Fri)	3-4	Lecture	Theme: Chemotherapy of solid tumor 3 (Hepatocellular cancer) Basic and clinical features, diagnosis and treatment of hepatocellular cancer. 1. Symptoms 2. Staging 3. Laboratory examinations 4. Imaging 5. Pathology 6. Comprehensive treatment 7. Roles of drugs 8. Biological treatments	Daiki Taguchi	医学系研究棟 4 階 6 講義室
7	1 / 30 (Fri)	1-2	Lecture	Theme: Chemotherapy of solid tumor 4 (Cancer of unknown primary (CUP)) Basic and clinical features, diagnosis and treatment of CUP. 1. Symptoms 2. Staging 3. Laboratory examinations 4. Imaging 5. Pathology 6. Comprehensive treatment 7. Roles of drugs 8. Biological treatments	Hiroyuki Shibata	医学系研究棟 4 階 6 講義室
8	1 / 30 (Fri)	3-4	Lecture	Theme: Chemotherapy of solid tumor 5 (Pancreatic cancer) Basic and clinical features, diagnosis and treatment of pancreatic cancer. 1. Symptoms 2. Staging 3. Laboratory examinations 4. Imaging 5. Pathology 6. Comprehensive treatment 7. Roles of drugs 8. Biological treatments	Hiroyuki Shibata	医学系研究棟 4 階 6 講義室
9	2 / 6 (Fri)	1-2	Lecture	Theme: Palliative care of cancer patients 1. What is palliative care? 2. Dying patients: physical and mental situations 3. End of life care 1: how to communicate with and nurse cancer patients 4. End of life care 2: hydration and nutrition of cancer patients 5. End of life care 3: advanced care planning, supportive care, sedation, dignity of patients, DNAR(Do not attempt resuscitation) 6. Grief care	Naoki Matsuo	医学系研究棟 4 階 6 講義室

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
10	2 / 6 (Fri)	3-4	Lecture	Theme: Achievement test	Hiroyuki Shibata	医学系研究 棟 4 階 6 講 義室