

Course	Human Pathology and Oncology
Course No.	01ER239
Credits	2 credits
Grade	1 <sup>st</sup> Year
Timetable	Fall AB, Fri 4,5 (Room 119, 4B Building, Medical Area)
Instructor	Mitsuyasu Kato, Hiroyuki Suzuki, Yukihide Watanabe, Yukari Okita, Masayuki Noguchi, Tatsuya Oda, Koji Kawai, Takeo Minaguchi, Shigeru Chiba
Course Overview	Human Pathology and Oncology provides opportunities for the students to learn about the basic disease entities of circulatory disorders ( <i>i.e.</i> , edema, thrombosis, and infarction), inflammation, and neoplasia, in terms of the causes, pathogenesis, and morphological changes of human disease. Studying pathological understanding of common diseases, the students should be able to understand various human <i>in vivo</i> phenomena.
Remarks	Lectures are conducted in English
Course Type	Lectures
Link between Course Objectives and Activities	<p>Students will study health security issues related to Human pathology and oncology thorough achieving the following criteria.</p> <ol style="list-style-type: none"> <li>1. To be able to explain common circulatory disorders (hemorrhage, thrombosis, embolism, infarction, edema and shock),</li> <li>2. To be able to explain the definition, classification, morphological changes, and time course of inflammation,</li> <li>3. To be able to explain the process and a variation of cell injury and death,</li> <li>4. To be able to explain the process of tissue repair and adaptation (atrophy, hypertrophy, hyperplasia and metaplasia),</li> <li>5. To be able to explain the definition of benign and malignant neoplasm and cancer,</li> <li>6. To be able to explain the local growth and metastasis of cancer,</li> <li>7. To be able to explain the clinical staging of cancer,</li> <li>8. To be able to explain the function of major oncogenes and tumor suppressor genes,</li> <li>9. To be able to explain the major cancer and related disorders in each tissues and organs,</li> <li>10. To be able to explain current status of cancer epidemiology, treatment and prevention.</li> </ol>
Academic Goal	To understand the histological, biochemical, and functional changes in cells, tissues, and organs that underlie human disease.
Course Schedule	<ol style="list-style-type: none"> <li>1. Introduction to Pathology (Kato M.)</li> <li>2. Tissue Homeostasis and Regeneration (Kato M.)</li> <li>3. Cell Injury and Death (Suzuki H.)</li> <li>4. Degeneration, Hyperplasia and Hypertrophy (Suzuki H.)</li> <li>5. Circulatory Disturbance I (Kato M.)</li> <li>6. Circulatory Disturbance II (Kato M.)</li> <li>7. Inflammation I (Kato M.)</li> <li>8. Inflammation II (Kato M.)</li> <li>9. Oncogenesis (Suzuki H.)</li> <li>10. Tumor Suppressor Genes (Suzuki H.)</li> <li>11. Hallmarks of Cancer (Watanabe Y.)</li> <li>12. Invasion and Metastasis (Okita M.)</li> <li>13. Diagnostic Pathology (Noguchi M.)</li> <li>14. Lung Cancer (Noguchi M.)</li> </ol>

	15. Gastric Cancer and Colorectal Cancer (Oda T.) 16. Pancreatic Cancer and Hepatocellular carcinoma (Oda T.) 17. Cancers in Kidneys, Bladder, and Prostate (Kawai K.) 18. Cancers in Female Reproductive Organs (Minaguchi T.) 19. Leukemia and Related Disorders (Chiba S.) 20. Cancer Stem Cells (Kato M.)
Course Prerequisites and Advisories	
Grading Philosophy (Percentage/ Criteria/ Methodology)	The students are evaluated by the short tests after each lectures (50%) and an end-of-term report (50%). A+: Superior (more than 90: top 10%) A: Excellent (80-89: upper 20%) B: Good (70-79) C: Average (60-69) D: Failure (less than 60)
Self-Directed Learning Other Than Coursework	Read textbook. Study histopathology by virtual slides.
Textbooks, References and Supplementary Materials	Robbins and Cotran, Pathologic Basis of Disease 9 <sup>th</sup> edition. Kumar, Abbas, and Aster ed., Saunders, 2015
Office Hours	Mitsuyasu Kato; mit-kato@md.tsukuba.ac.jp Appointed by e-mail.
Other (i.e. Expectations on Classroom, Conduct and Decorum etc.)	
Related Courses	
Keywords	