

Course title <English>	中毒学入門 Introduction to Toxicology	Affiliated department, Job title,Name	Graduate School of Medicine Associate Professor,HARADA KOUJI Graduate School of Medicine Professor,KOIZUMI AKIO		
Grade allotted	Professional degree students	Number of credits	2	Course offered year/period	2015/First semester
Day/period	Wed.4	Class style	Lecture	Language	Japanese and English
[Outline and Purpose of the Course]					
I. Course Description The hazardous effects of chemicals on human health have been traditionally investigated in toxicology while therapeutic ones have been investigated in pharmacology. In this course, selected known episodes of environmental pollutions, metals and organic substances will be given. We will discuss the toxicities of common chemicals in our modern lives: mercury, dioxin, lead, thallium and cannabinoids. The aim of this course is to provide a scientific basis of modern toxicology. In this year, ancient medical book 'Ishinbo' is used for course material.					
[Course Goals]					
II. Course Goals and Objectives Introduction to basic toxicology Knowledge for the toxic effects of some environmental pollutants, metals and organic substances familiar to us. Knowledge for developmental toxicology and carcinogenesis Analytical skill for toxicokinetics and toxicodynamics Skill for regulatory strategy to minimize the toxic effects of chemicals					
[Course Schedule and Contents]					
Course Schedule 1 April 8 Orientation 2 April 15 Introduction to 'Ishinbo' (Takeda) 3 April 22 'Ishinbo' and modern medicine 4 May 13 Toxicity of alcohol (Koizumi) 5 May 20 Minamata disease and ecotoxicology (Harada) 6 May 27 Mechanism of pain: Morphine and nerves (Koizumi and Okuda) 7 June 3 'Ishinbo' and Modern Medicine; Acute & chronic arsenic toxicities (Takeda & Kobayashi) 8 June 10 Murder by thallium in a university (Koizumi) 9 June 17 Murder by aconite-(1) (Koizumi) 10 June 24 Murder by aconite-(2), Tetrodotoxin (Koizumi) 11 July 1 Chemical terrorism in Tokyo subway using Sarin (Kobayashi) 12 July 8 Cannabinoids and obesity (Harada) 13 July 15 Toxins in 'Ishinbo' 1 (Group discussion) 14 July 22 Toxins in 'Ishinbo' 2 (Group discussion) 15 August 5 Additional topic July 29 Examination					
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[Class requirement]

Elective

[Method, Point of view, and Attainment levels of Evaluation]

V. Course Grade

Attendance and active participation in the lecture 50%; Examination 50 %

[Textbook]

Not used

IV. Course Text and Readings

Handouts

[Reference books, etc.]

(Reference books)

[Regarding studies out of class (preparation and review)]

III. Methods of Instruction

Lectures and discussion

Active participation will be evaluated

(Others (office hour, etc.))

VI. Message

“Introduction to Toxicology” , “Toxicology” and “On the Bench Training” are in series. Those who wish to take “Toxicology” and “On the Bench Training” should take “Introduction to Toxicology” .

*Please visit KULASIS to find out about office hours.