Course title <English>	ベンチトレーニングコース On the Bench Training Course	Affiliated department, Job title,Name	Graduate School of Medicine Associate Professor,HARADA KOUJI Graduate School of Medicine Professor,KOIZUMI AKIO

Target year	Professional degree students	Number of credits	2	Course offered year/period	2017/Second semester

Day/period	Fri.3,4	Class style	Lecture	Language	Japanese and English

[Outline and Purpose of the Course]

I. Course Description
The practice of the GLP will be given for learning protocol writing, protocol presentation, protocol meeting, sample collection, sample measurement, audit, paper writing and review.

[Course Goals]

II. Course Goals and Objectives
Skills in handling Gas Chromatography / Mass Spectrometry (GC-MS)
Skill for protocol writing in accordance with the practice of GLP
Conduct laboratory works in accordance with GLP
Skill the experimented data
Skill the experimented data
Skill to write a company paper

[Course Schedule and Contents]

Course Schedule
1 Oct 6 Orientation
2 Oct 13 Gas Chromatography 24-1, 24-2, 24-3
3 Oct 20 Gas Chromatography 24-4, 24-5
4 Oct 27 Mass Spectrometry 22-1, 22-2
5 Nov 10 Mass Spectrometry 22-3, 22-4
6 Nov 17 Discussion of theme
7 Dec 1 Presentation of background
8 Dec 8 Protocol Writing
9 Dec 15 Protocol Presentation
10 Dec 22 Sample collecting
11 Jan 5 Sample measurement (1)
12 Jan 12 Sample measurement (2)
13 Jan 19 Summarize the data
14 Jan 26 Presentation the data
15 Feb 2 Writing Paper

[Class requirement]

Elective.
Required for the students of department of Health and Environmental Sciences.

Continue to ベンチトレーニングコース(2)↓↓↓

ベンチトレーニングコース(2)

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

V. Course Grade
Attendance and active participation 50%
Presentation 50%

[Textbook]

Not used
IV. Course Text and Readings
Handouts
1. Code of Federal Regulations ICH Guideline
2. Quantitative Chemical Analysis 6th edition Daniel C. Harris, W. H. Freeman and Company, 2003

[Reference books, etc.]

（Reference books）

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

III. Methods of Instruction
Lecture and small group working

（Others (office hour, etc.)）

Credits of “Introduction to Toxicology” and “Occupational health and environmental health sciences” simultaneous registration of “Toxicology” are required.

*Please visit KULASIS to find out about office hours.