

Training for Safehandling of Radiation and Radioisotopes and X-Ray Machines for Beginners in Tohoku University

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Training for safehandling of radiation and radioisotopes for beginners has been conducted twice a year from 1977 in Tohoku University. The contents of lectures and practices are shown in Table 1. In 1996 the training was performed for 511 persons. The departments to which they belong are given in Table 2.

Training for safehandling of X-ray machines and electron microscopes began from the end of 1983. The training is scheduled to be held twice a year at the same time as the safehandling of radiation and radioisotopes. Only lectures are given and not practices. The contents of the lectures and the distributions of trainees are shown in Tables 3 and 4, respectively.

Training for safehandling of synchrotron radiation began from the end of 1995. The contents of the lectures are the same as safehandling of radiation and radioisotopes for beginners and not practices. In 1996 the training was performed for 36 persons.

Table 1. Contents of lectures and practices for safehandling of radiation and radioisotopes in 1996.

<u>Lectures (one day)</u>	
Radiation physics and measurements	1.5 (hours)
Chemistry of radioisotopes	1.0
Radiological protection ordinance	1.5
Effects of radiation on man	1.0
Safehandling of radioisotopes	1.5
<u>Practices (one day)</u>	
Treatment of unsealed radioactive solution	4.0 (hours)
Measurements of surface contamination and decontaminatio	1.0
Measurements of gamma rays and beta rays	2.0

Table 2. Distribution of trainees for safehandling of radiation and radioisotopes in 1996.

Department	Staff	Student	Total
Faculties	0	0	0
Medicine	41	87	128
Dentistry	1	6	7
Pharmacy	4	59	63
Science	2	77	79
Engineering	3	64	67
Agriculture	2	82	84
Research Institutes	9	66	75
The others	2	5	8
Total	64	447	511

Table 3. Contents of lectures for safehandling of X-ray machines and electron microscopes in 1996.

Safehandling of X-ray machines	1.5 (hours)
Radiological protection ordinance	1.0
VTR for safehandling of radiation and radioisotopes	1.0

Table 4. Distribution of trainees for safehandling of X-ray machines and electron microscopes in 1996.

Department	Staff	Student	Total
Faculties	0	0	0
Medicine	0	0	0
Science	2	23	25
Engineering	7	85	92
Agriculture	0	0	0
Research Institutes	15	87	102
Total	24	195	219

Table 5. Distribution of trainees for synchrotron radiation in 1996.

Department	Staff	Student	Total
Faculties	0	0	0
Science	1	16	17
Pharmacy	0	0	0
Engineering	0	2	2
Agriculture	0	0	0
Research Institutes	4	13	17
Total	5	31	36