

Annex Tables

Annex Table 1. Understanding About Radiation Exposures from Various Consumer Products of University Students by Each Grade

Division	Grade					Total	
	1st	2nd	3rd	4th	More than 4th		
Ionization chamber smoke detectors	A	87 (84.5%)	158 (84.0%)	111(74.5%)	19 (54.3%)	5 (62.5%)	380 (78.7%)
	B	15 (14.6%)	29 (15.5%)	31 (20.8%)	10 (28.6%)	2 (25.0%)	87 (18.0%)
	C	1 (0.9%)	1 (0.5%)	5 (3.3%)	6 (17.1%)	0	13 (2.7%)
	D	0	0	2 (1.4%)	0	1 (12.5%)	3 (0.6%)
Radioluminous products	A	80 (77.7%)	133 (70.7%)	90 (60.4%)	13 (37.1%)	5 (62.5%)	321 (66.5%)
	B	17 (16.5%)	45 (23.9%)	44 (29.5%)	14 (40.0%)	1 (12.5%)	121 (25.1%)
	C	6 (5.8%)	10 (5.4%)	11 (7.4%)	6 (17.1%)	2 (25.0%)	35 (7.2%)
	D	0	0	4 (2.7%)	2 (5.8%)	0	6 (1.2%)
Fluorescent lamp starters	A	71 (68.9%)	107 (56.9%)	77 (51.7%)	19 (54.3%)	5 (62.5%)	279 (57.8%)
	B	23 (22.3%)	61 (32.5%)	53 (35.6%)	7 (20.0%)	0	144 (29.8%)
	C	9 (8.8%)	20 (10.6%)	19 (12.7%)	8 (22.8%)	3 (37.5%)	59 (12.2%)
	D	0	0	0	1 (2.9%)	0	1 (0.2%)
Electronic devices	A	72 (69.9%)	137 (72.9%)	86 (57.7%)	13 (37.1%)	3 (37.5%)	311 (64.4%)
	B	21 (20.4%)	39 (20.7%)	41 (27.5%)	12 (34.3%)	4 (50.0%)	117 (24.2%)
	C	10 (9.7%)	11 (5.9%)	21 (14.1%)	10 (28.6%)	1 (12.5%)	53 (11.0%)
	D	0	1 (0.5%)	1 (0.7%)	0	0	2 (0.4%)
Anti-static devices	A	87 (84.5%)	163 (86.7%)	99 (66.4%)	20 (57.1%)	4 (50.0%)	373 (77.2%)
	B	10 (9.7%)	18 (9.6%)	37 (24.8%)	9 (25.7%)	3 (37.5%)	77 (16.0%)
	C	5 (4.9%)	6 (3.2%)	12 (8.1%)	6 (17.2%)	1 (12.5%)	30 (6.2%)
	D	1 (0.9%)	1 (0.5%)	1 (0.7%)	0	0	3 (0.6%)
Thoriated incandescent gas mantles	A	94 (91.3%)	177 (94.1%)	113 (75.8%)	20 (57.1%)	7 (87.5%)	411 (85.1%)
	B	6 (5.8%)	7 (3.7%)	30 (20.1%)	7 (20.0%)	0	50 (10.4%)
	C	3 (2.9%)	4 (2.2%)	5 (3.4%)	8 (22.9%)	1 (12.5%)	21 (4.3%)
	D	0	0	1 (0.7%)	0	0	1 (0.2%)
Thoriated lenses	A	94 (91.3%)	173 (92.0%)	120 (80.5%)	22 (62.9%)	7 (87.5%)	416 (86.1%)
	B	6 (5.9%)	13 (7.0%)	24 (16.1%)	8 (22.9%)	0	51 (10.6%)
	C	2 (1.9%)	1 (0.5%)	4 (2.7%)	4 (11.3%)	1 (12.5%)	12 (2.5%)
	D	1 (0.9%)	1 (0.5%)	1 (0.7%)	1 (2.9%)	0	4 (0.8%)
Thoriated tungsten welding electrodes	A	92 (89.3%)	172 (91.5%)	123 (82.5%)	22 (62.9%)	7 (87.5%)	416 (86.1%)
	B	8 (7.8%)	13 (6.9%)	19 (12.8%)	10 (28.6%)	0	50 (10.4%)
	C	3 (2.9%)	3 (1.6%)	6 (4.0%)	3 (8.5%)	1 (12.5%)	16 (3.3%)
	D	0	0	1 (0.7%)	0	0	1 (0.2%)
Glassware, tableware, jewellery and ceramic tiles incorporating uranium	A	90 (87.4%)	164 (87.2%)	109 (73.2%)	20 (57.2%)	6 (75.0%)	389 (80.5%)
	B	9 (8.7%)	14 (7.5%)	23 (15.4%)	11 (31.4%)	0	57 (11.8%)
	C	4 (3.9%)	9 (4.8%)	14 (9.4%)	4 (11.4%)	2 (25.0%)	33 (6.9%)
	D	0	1 (0.5%)	3 (2.0%)	0	0	4 (0.8%)
Dental products incorporating uranium	A	91 (88.3%)	160 (85.1%)	108 (72.5%)	15 (42.9%)	7 (87.5%)	381 (78.9%)
	B	8 (7.8%)	22 (11.7%)	26 (17.4%)	14 (40.0%)	1 (12.5%)	71 (14.7%)
	C	4 (3.9%)	6 (3.2%)	14 (9.4%)	5 (14.3%)	0	29 (6.0%)
	D	0	0	1 (0.7%)	1 (2.8%)	0	2 (0.4%)
Irradiated gemstones	A	88 (85.4%)	167 (88.8%)	111 (74.5%)	22 (62.9%)	5 (62.5%)	393 (81.4%)
	B	11 (10.7%)	14 (7.5%)	26 (17.5%)	10 (28.6%)	3 (37.5%)	64 (13.3%)
	C	4 (3.9%)	7 (3.7%)	9 (6.0%)	2 (5.7%)	0	22 (4.5%)
	D	0	0	3 (2.0%)	1 (2.8%)	0	4 (0.8%)
Antique products	A	91 (88.3%)	166 (88.3%)	121 (81.2%)	14 (40.0%)	7 (87.5%)	399 (82.6%)
	B	10 (9.8%)	14 (7.4%)	18 (12.1%)	13 (37.1%)	1 (12.5%)	56 (11.6%)
	C	2 (1.9%)	8 (4.3%)	10 (6.7%)	7 (20.0%)	0	27 (5.6%)
	D	0	0	0	1 (2.9%)	0	1 (0.2%)

Annex Table 2. Understanding about Radiation Exposures from Various Consumer Products of University Students Majoring Nuclear Engineering and Non-nuclear Related Studies

Division		Major students	Non-major students	Total
Ionization chamber smoke detectors	A	24 (63.1%)	356 (80.0%)	380 (78.7%)
	B	7 (18.4%)	80 (18.0%)	87 (18.0%)
	C	5 (13.2%)	8 (1.8%)	13 (2.7%)
	D	2 (5.3%)	1 (0.2%)	3 (0.6%)
Radioluminous products	A	15 (39.5%)	306 (68.8%)	321 (66.5%)
	B	7 (18.4%)	114 (25.6%)	121 (25.1%)
	C	11 (28.9%)	24 (5.4%)	35 (7.2%)
	D	5 (13.2%)	1 (0.2%)	6 (1.2%)
Fluorescent lamp starters	A	9 (23.7%)	270 (60.7%)	279 (57.8%)
	B	11 (28.9%)	133 (29.9%)	144 (29.8%)
	C	17 (44.7%)	42 (9.4%)	59 (12.2%)
	D	1 (2.7%)	0	1 (0.2%)
Electronic devices	A	8 (21.1%)	303 (68.1%)	311 (64.4%)
	B	16 (42.1%)	101 (22.7%)	117 (24.2%)
	C	13 (34.2%)	40 (9.0%)	53 (11.0%)
	D	1 (2.7%)	1 (0.2%)	2 (0.4%)
Anti-static devices	A	24 (63.1%)	349 (78.4%)	373 (77.2%)
	B	8 (21.1%)	69 (15.5%)	77 (16.0%)
	C	5 (13.2%)	25 (5.7%)	30 (6.2%)
	D	1 (2.6%)	2 (0.4%)	3 (0.6%)
Thoriated incandescent gas mantles	A	22 (57.9%)	389 (87.4%)	411 (85.1%)
	B	8 (21.1%)	42 (9.4%)	50 (10.4%)
	C	7 (18.4%)	14 (3.2%)	21 (4.3%)
	D	1 (2.6%)	0	1 (0.2%)
Thoriated lenses	A	27 (71.1%)	389 (87.4%)	416 (86.1%)
	B	7 (18.4%)	44 (9.9%)	51 (10.6%)
	C	3 (7.9%)	9 (2.0%)	12 (2.5%)
	D	1 (2.6%)	3 (0.7%)	4 (0.8%)
Thoriated tungsten welding electrodes	A	27 (71.1%)	389 (87.4%)	416 (86.1%)
	B	6 (15.8%)	44 (9.9%)	50 (10.4%)
	C	4 (10.5%)	12 (2.7%)	16 (3.3%)
	D	1 (2.6%)	0	1 (0.2%)
Glassware, tableware, jewellery and ceramic tiles incorporating uranium	A	19 (50.0%)	370 (83.1%)	389 (80.5%)
	B	4 (10.5%)	53 (11.9%)	57 (11.8%)
	C	12 (31.6%)	21 (4.8%)	33 (6.9%)
	D	3 (7.9%)	1 (0.2%)	4 (0.8%)
Dental products incorporating uranium	A	18 (47.4%)	363 (81.6%)	381 (78.9%)
	B	6 (15.8%)	65 (14.6%)	71 (14.7%)
	C	12 (31.6%)	17 (3.8%)	29 (6.0%)
	D	2 (5.2%)	0	2 (0.4%)
Irradiated gemstones	A	13 (34.2%)	380 (85.4%)	393 (81.4%)
	B	13 (34.2%)	51 (11.5%)	64 (13.3%)
	C	8 (21.1%)	14 (3.1%)	22 (4.5%)
	D	4 (10.5%)	0	4 (0.8%)
Antique products	A	19 (50.0%)	380 (85.4%)	399 (82.6%)
	B	8 (21.1%)	48 (10.8%)	56 (11.6%)
	C	11 (28.9%)	16 (3.6%)	27 (5.6%)
	D	0	1 (0.2%)	1 (0.2%)

Annex Table 3. Understanding about Radiation Exposures from Various Consumer Products of University Students Classified by Gender

Division	Gender		Total	
	Male	Female		
Ionization chamber smoke detectors	A	191 (76.4%)	189 (81.1%)	380 (78.7%)
	B	47 (18.8%)	40 (17.2%)	87 (18.0%)
	C	9 (3.6%)	4 (1.7%)	13 (2.7%)
	D	3 (1.2%)	0	3 (0.6%)
Radioluminous products	A	171 (68.4%)	150 (64.4%)	321 (66.5%)
	B	53 (21.2%)	68 (29.2%)	121 (25.1%)
	C	20 (8.0%)	15 (6.4%)	35 (7.2%)
	D	6 (2.4%)	0	6 (1.2%)
Fluorescent lamp starters	A	158 (63.2%)	121 (51.9%)	279 (57.8%)
	B	62 (24.8%)	82 (35.2%)	144 (29.8%)
	C	29 (11.6%)	30 (12.9%)	59 (12.2%)
	D	1 (0.4%)	0	1 (0.2%)
Electronic devices	A	155 (62.0%)	156 (67.0%)	311 (64.4%)
	B	61 (24.4%)	56 (24.0%)	117 (24.2%)
	C	32 (12.8%)	21 (9.0%)	53 (11.0%)
	D	2 (0.8%)	0	2 (0.4%)
Anti-static devices	A	185 (74.0%)	188 (80.7%)	373 (77.2%)
	B	39 (15.6%)	38 (16.3%)	77 (15.9%)
	C	23 (9.2%)	7 (3.0%)	30 (6.3%)
	D	3 (1.2%)	0	3 (0.6%)
Thoriated incandescent gas mantles	A	203 (81.2%)	208 (89.3%)	411 (85.1%)
	B	31 (12.4%)	19 (8.1%)	50 (10.4%)
	C	15 (6.0%)	6 (2.6%)	21 (4.3%)
	D	1 (0.4%)	0	1 (0.2%)
Thoriated lenses	A	206 (82.4%)	210 (90.1%)	416 (86.1%)
	B	29 (11.6%)	22 (9.5%)	51 (10.6%)
	C	11 (4.4%)	1 (0.4%)	12 (2.5%)
	D	4 (1.6%)	0	4 (0.8%)
Thoriated tungsten welding electrodes	A	204 (81.6%)	212 (91.0%)	416 (86.1%)
	B	33 (13.2%)	17 (7.3%)	50 (10.4%)
	C	12 (4.8%)	4 (1.7%)	16 (3.3%)
	D	1 (0.4%)	0	1 (0.2%)
Glassware, tableware, jewellery and ceramic tiles incorporating uranium	A	190 (76.0%)	199 (85.4%)	389 (80.5%)
	B	35 (14.0%)	22 (9.4%)	57 (11.8%)
	C	21 (8.4%)	12 (5.2%)	33 (6.9%)
	D	4 (1.6%)	0	4 (0.8%)
Dental products incorporating uranium	A	187 (74.8%)	194 (83.3%)	381 (78.9%)
	B	41 (16.4%)	30 (12.9%)	71 (14.7%)
	C	20 (8.0%)	9 (3.8%)	29 (6.0%)
	D	2 (0.8%)	0	2 (0.4%)
Irradiated gemstones	A	192 (76.8%)	201 (86.3%)	393 (81.4%)
	B	39 (15.6%)	25 (10.7%)	64 (13.2%)
	C	15 (6.0%)	7 (3.0%)	22 (4.6%)
	D	4 (1.6%)	0	4 (0.8%)
Antique products	A	200 (80.0%)	199 (85.4%)	399 (82.6%)
	B	33 (13.2%)	23 (9.9%)	56 (11.6%)
	C	16 (6.4%)	11 (4.7%)	27 (5.6%)
	D	1 (0.4%)	0	1 (0.2%)

Annex Table 4. Differences in the Awareness (rating) of Radiation Exposures from Various Consumer Products of University Students by Each Grade

Division	Grade	Number	Average \pm standard deviation
Ionization chamber smoke detectors	freshman	103	1.165 \pm 0.3965
	sophomore	188	1.164 \pm 0.3851
	junior	149	1.315 \pm 0.6029
	senior	35	1.628 \pm 0.7591
	More than 4th grade	8	1.625 \pm 0.9921
Radioluminous products	freshman	103	1.281 \pm 0.5646
	sophomore	188	1.345 \pm 0.5767
	junior	149	1.523 \pm 0.7471
	senior	35	1.914 \pm 0.8741
	More than 4th grade	8	1.625 \pm 0.8569
Fluorescent lamp starters	freshman	103	1.398 \pm 0.6437
	sophomore	188	1.537 \pm 0.6792
	junior	149	1.610 \pm 0.7019
	senior	35	1.742 \pm 0.9053
	More than 4th grade	8	1.750 \pm 0.9682
Electronic devices	freshman	103	1.398 \pm 0.6586
	sophomore	188	1.340 \pm 0.6111
	junior	149	1.577 \pm 0.7524
	senior	35	1.914 \pm 0.8060
	More than 4th grade	8	1.750 \pm 0.7071
Anti-static devices	freshman	103	1.223 \pm 0.5733
	sophomore	188	1.175 \pm 0.4903
	junior	149	1.429 \pm 0.6681
	senior	35	1.600 \pm 0.7634
	More than 4th grade	8	1.625 \pm 0.6959
Thoriated incandescent gas mantles	freshman	103	1.116 \pm 0.4014
	sophomore	188	1.079 \pm 0.3405
	junior	149	1.288 \pm 0.5591
	senior	35	1.657 \pm 0.8261
	More than 4th grade	8	1.250 \pm 0.6614
Thoriated lenses	freshman	103	1.126 \pm 0.4553
	sophomore	188	1.095 \pm 0.3593
	junior	149	1.234 \pm 0.5231
	senior	35	1.542 \pm 0.8050
	More than 4th grade	8	1.250 \pm 0.6614
Thoriated tungsten welding electrodes	freshman	103	1.136 \pm 0.4191
	sophomore	188	1.101 \pm 0.3503
	junior	149	1.228 \pm 0.5449
	senior	35	1.457 \pm 0.6477
	More than 4th grade	8	1.250 \pm 0.6614
Glassware, tableware, jewellery and ceramic tiles incorporating uranium	freshman	103	1.165 \pm 0.4641
	sophomore	188	1.186 \pm 0.5283
	junior	149	1.402 \pm 0.7411
	senior	35	1.542 \pm 0.6904
	More than 4th grade	8	1.500 \pm 0.8660
Dental products incorporating uranium	freshman	103	1.155 \pm 0.4570
	sophomore	188	1.180 \pm 0.4604
	junior	149	1.382 \pm 0.6814
	senior	35	1.771 \pm 0.7959
	More than 4th grade	8	1.125 \pm 0.3307
Irradiated gemstones	freshman	103	1.184 \pm 0.4776
	sophomore	188	1.148 \pm 0.4485
	junior	149	1.355 \pm 0.6861
	senior	35	1.485 \pm 0.7317
	More than 4th grade	8	1.375 \pm 0.4841
Antique products	freshman	103	1.136 \pm 0.3953
	sophomore	188	1.159 \pm 0.4682
	junior	149	1.255 \pm 0.5694
	senior	35	1.857 \pm 0.8329
	More than 4th grade	8	1.125 \pm 0.3307

Annex Table 5. Differences in the Awareness (rating) of Radiation Exposures from Various Consumer Products of University Students Majoring Nuclear Engineering and Non-nuclear Related Studies

Division	Number	Average ± standard deviation	
Ionization chamber smoke detectors	Major students	38	1.605±0.9043
	Non-major students	445	1.222±0.4716
Radioluminous products	Major students	38	2.157±1.0888
	Non-major students	445	1.370±0.5955
Fluorescent lamp starters	Major students	38	2.263±0.8486
	Non-major students	445	1.487±0.6622
Electronic devices	Major students	38	2.184±0.7899
	Non-major students	445	1.413±0.6601
Anti-static devices	Major students	38	1.552±0.8174
	Non-major students	445	1.280±0.5842
Thoriated incandescent gas mantles	Major students	38	1.657±0.8668
	Non-major students	445	1.157±0.4421
Thoriated lenses	Major students	38	1.421±0.7480
	Non-major students	445	1.159±0.4636
Thoriated tungsten welding electrodes	Major students	38	1.447±0.7846
	Non-major students	445	1.152±0.4282
Glassware, tableware, jewellery and ceramic tiles incorporating uranium	Major students	38	1.973±1.0634
	Non-major students	445	1.220±0.5287
Dental products incorporating uranium	Major students	38	1.947±0.9986
	Non-major students	445	1.222±0.4993
Irradiated gemstones	Major students	38	2.078±0.9835
	Non-major students	445	1.177±0.4570
Antique products	Major students	38	1.789±0.8632
	Non-major students	445	1.186±0.4869

Annex Table 6. Differences in the Awareness (rating) of Radiation Exposures from Various Consumer Products of University Students Classified by Gender

Division	Number	Average ± standard deviation	
Ionization chamber smoke detectors	Male	250	1.296±0.5936
	Female	233	1.206±0.4448
Radioluminous products	Male	250	1.444±0.7422
	Female	233	1.420±0.6102
Fluorescent lamp starters	Male	250	1.492±0.7112
	Female	233	1.609±0.7039
Electronic devices	Male	250	1.524±0.7439
	Female	233	1.420±0.6511
Anti-static devices	Male	250	1.376±0.7004
	Female	233	1.223±0.4831
Thoriated incandescent gas mantles	Male	250	1.256±0.5783
	Female	233	1.133±0.4084
Thoriated lenses	Male	250	1.252±0.6103
	Female	233	1.103±0.3177
Thoriated tungsten welding electrodes	Male	250	1.240±0.5499
	Female	233	1.107±0.3607
Glassware, tableware, jewellery and ceramic tiles incorporating uranium	Male	250	1.356±0.7023
	Female	233	1.197±0.5113
Dental products incorporating uranium	Male	250	1.348±0.6594
	Female	233	1.206±0.4907
Irradiated gemstones	Male	250	1.324±0.6595
	Female	233	1.167±0.4465
Antique products	Male	250	1.272±0.5916
	Female	233	1.193±0.5002

Annex Table 7. Differences in the Awareness (total rating) of Radiation Exposures from Various Consumer Products of University Students According to General Characteristics

	Division	Research	
		Number	Average ± standard deviation
Grade	freshman	103	1.207±0.0959
	sophomore	188	1.209±0.1276
	junior	149	1.383±0.1252
	senior	35	1.675±0.1549
	more than 4th year	8	1.437±0.2253
Major	Major students	38	1.839±0.2869
	Non-major students	445	1.253±0.1065
Gender	Male	250	1.348±0.0913
	Female	233	1.248±0.1471