

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-4023	Health Physics	2.00	2.00	0.00	3.00	7.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Optional					
Preconditions	: Not					
Objectives of the Course	: This course aims to to determine radiation protection principles, especially to human, of all living things, applying these principles to the fields. To calculate exposed radiation doses of individuals, planning of radiation used establishments. To learn necessary protective measures about radiation.					
Course Contents	: Definition and basic concepts of health physics, radioactivity, radiation dosimeter, exercises related to radiation dosimeter, natural and man-made radiations and fall-out, biological effects of radiations, Introduction to radioisotope important for human and environment health, exercises related to radiation unit, protection from radiation, saving of radioactive waste, disposal methods, planning of the field of radiation is used, radiation accidents and radiation-related legal cases, using of radiation and radionuclide in medicine, industry and biology.					
Recommended or Required Reading	: Sağlık Fiziği, Prof Dr. Tulay Engizek, İstanbul Üniversitesi Fen Fakültesi Basımevi. B H Brown, et. al., Medical Physics and Biomedical Engineering, IOP Publishing Ltd, 1999. F. Pehlivan, Biyofizik, Pelikan Yayıncılık, 2011. Sağlık Fiziği, Herman Cember, Thomas E Johnson, Mc Graww Hill, 2009.					
Planned Learning Activities and Teaching Methods	: Lectures will be made. In addition, student participation in problem solving will be made on the subject.					
Recommended Optional Programme Components	: --					
Instructors	: Prof. Dr. Emine Dilara Atalay					
Instructor's Assistants	: --					
Presentation Of Course	: Face to face					

Course Outcomes

Upon the completion of this course a student :

- 1 Learn the related field of Health Physics
- 2 Solve exercises and learn formulas related to radiation dosimeter.
- 3 Explain and use the radiation units.
- 4 Classify the methods of Radiation Protection.
- 5 Compute the necessary calculations related to the planning of radiation fields.

Preconditions

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