Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Health Physics	FZK455	7. Semester	2 + 2	3.0	8.0

Prerequisites	None
Language of Instruction	Turkish
Course Level	Bacheclor's Degree (First Cycle)
Course Type	Elective
Mode of delivery	Face to face
Course Coordinator	Assoc. Prof. Dr. Emine Dilara AYDIN
Instructors	
Assistants	
Course Objectives	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 Content	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
Course Learning Outcomes	1) Learn the related field of Health Physics 2) Solve exercises and 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

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Definition and basic concepts of health physics	Oral lectures with interactive discussions, homeworks	
2. Week	Radioactivity	Oral lectures with interactive	

Quick Access

Physics
- Qualification Awarded
- Level of Qualification
- Qualification Requirements and Regulations
- Specific Admission Requirements
- Recognition of Prior Learning
- Profile of the Program
- Program Key Learning Outcomes
- Occupational Profile of Graduates
- Access to Further Studies
- Course Structure & Credits
- Exam Regulations & Assessment & Grading
- Graduation Requirements
- Mode of Study
- Programme Director(or Equivalent)
- Evaluation Questionnaire
- TYYÇ

Course Information
- Course Information
- Weekly Course Content
- Resources
- Course Category
- CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES
- ECTS credits and course workload

		discussions, homeworks	
3. Week	Radiation dosimeter 1	Oral lectures with interactive discussions, homeworks	
4. Week	Radiation dosimeter 2		
5. Week	Exercises related to radiation dosimeter	Oral lectures with interactive discussions, homeworks	
6. Week	Natural and man-made radiations and fall-out	Oral lectures with interactive discussions, homeworks	
7. Week	Exercises	Oral lectures with interactive discussions, homeworks	
8. Week	Biological effects of radiations	Oral lectures with interactive discussions, homeworks	
9. Week	Introduction to radioisotope important for human and environment health	Oral lectures with interactive discussions, homeworks	
10. Week	Exercises related to radiation unit		
11. Week	Protection from radiation	Oral lectures with interactive discussions, homeworks	
12. Week	Saving of radioactive waste, disposal methods		
13. Week	Planning of the field of radiation is used, radiation accidents and radiation-related legal cases	Oral lectures with interactive discussions, homeworks	
14. Week	Using of radiation and radionuclide in medicine, industry and biology	Oral lectures with interactive discussions, homeworks	
15. Week	Review of the semester	Oral lectures with interactive discussions, homeworks	
16. Week	Final exam	Exam	

RESOURCES

Recommended Sources
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, Biophysics, Pelikan Yayıncılık, 2011

ASSESSMENT

Measurement and Evaluation Methods and Techniques
Lectures will be made. In addition, student participation in problem solving will be made on the subject.

COURSE CATEGORY

Course Category	Percentage
Area of Specialization Courses	% 100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5
PY1	5	4	5	4	5	5
PY2	5	5	4	5	4	5
PY3	3	3	4	3	4	4
PY4	0	2	2	2	2	2
PY5	0	3	3	3	3	3
PY6	4	4	4	4	4	4
PY7	4	4	4	4	4	4
PY8	5	5	5	5	5	5
PY9	0	5	5	5	4	4
PY10	4	4	5	4	4	4
PY11	4	4	4	4	4	4
PY12	0	4	4	4	4	4
PY13	0	3	3	3	3	3
PY14	4	5	4	4	4	4
PY15	4	4	4	4	4	4

*DK = Course's Contrubution.

	0	1	2	3	4	5
Level of contribution	None	Very Low	Low	Fair	High	Very High

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ECTS CREDITS AND COURSE WORKLOAD

Event	Quantity	Duration (Hour)	Total Workload (Hour)
Class Hours (14 weeks)	14	4	56
Presentation/Seminar	1	2	2
Final Exam Preparation	1	44	44
Mid Term Exam Preparation	1	32	32
Preliminary Study	14	4	56
Mid Term Exam 1	1	2	2
Final Exam	1	3	3
		Total Workload	195
		Total Workload / 25.5 (s)	7.65
		ECTS Credit of the Course	8