



بسمه تعالی

دانشگاه علوم پزشکی و خدمات بهداشتی درمانی استان اصفهان

طرح دوره

نیمسال دوم سال 1405-1404

گروه آموزشی: مهندسی بهداشت محیط

دانشکده: بهداشت

نام درس: ارزیابی و مدیریت خطرات بهداشت محیطی

رشته و مقطع تحصیلی: PhD students of

شماره درس:416681.....

.....Environmental Health

پیش نیاز:

تعداد و نوع واحد (عملی):2.....

تلفن دفتر:37923278...

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شرح درس:

It is not possible to control or manage all of the risks, but knowing what do before, during, and after an event will mitigate the damage and harm. Identifying potential hazards and risks and management of them through risk assessment is important and will be an incredible investment. Environmental health risk assessment (EHRA) is a tool that is increasingly used for evaluating and managing risks from environmental contaminants and technological hazards. EHRA is categorized into human health and ecological risk assessment and is a qualitative or quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence and/or use of specific pollutants. The nature and extent of chemical contamination or other stressors need to be characterized and exposure levels determined through understanding their fate and transport. In this course, human health risk assessment and management will be presented in details along with relevant tools and databases.

هدف کلی درس:

The primary learning objective of this course is to estimate the potential risk of a chemical or microbiological hazard on a specified human population under a specific set of conditions and for a certain timeframe. This conceptual course provides an understanding of the concepts, principles and methods of analyzing the risk of disease or health problems that may be attributed to the environment.



اهداف رفتاری:

در پایان این درس انتظار می‌رود فراگیران قادر باشند:

- Understand the importance of risk assessment.
- Identify and classify environmental hazards and risks.
- Learn about benefits and limitations of risk assessment process.
- Gain an understanding of the types of risk assessment.
- Gain an understanding of the components of risk assessment.
- Discuss the principles of risk assessment and management procedures.
- Learn about exposure assessment, modeling and monitoring approaches
- Describe the various categories of risks.
- Develop the ability to apply the tools that are available for risk analysis.
- Compares the potential health risks of various environmental health interventions.
- Develop the ability to assess the risk and recommend the most effective and relevant risk management options.

منابع اصلی درس :

- Department of health and ageing and enHealth council. 2004. Environmental Health Risk Assessment: *Guidelines for assessing human health risks from environmental hazards*. Commonwealth of Australia. Available at: <http://enhealth.nphp.gov.au/council/pubs/pubs.htm>
- EPA. Risk assessment. Available at: <https://www.epa.gov/risk>

وظایف فراگیران (در جلسات آنلاین و جلسات آنلاین به تفکیک):

All students are expected to attend and complete the specific course requirements (i.e. attendance, tests/exams, case study presentation and project).

نحوه ارزشیابی دانشجوی و بارم مربوط به هر ارزشیابی:



ردیف	فعالیت	نمره از 20
1	حضور در کلاس های مجازی آنلاین، انجام تکالیف در سامانه نوید در زمان مقرر	1
2	ارائه یک مورد مقاله	2
3	پروژه: جمع آوری داده و انجام ارزیابی خطر	5
4	امتحان پایان ترم	12

ردیف	تاریخ	عنوان جلسه
1	مجازی	Concept of Risk, Type of hazards and risks, Microbial and chemical hazards
2	مجازی	Environmental health risk assessment (EHRA): Human health risk, Ecological risk
3	مجازی	Scope of EHRA, Occupational risk assessment, HSE
4	مجازی	Aims, benefits and limitations of EHRA
5		Types of risk assessment
6		Key factors in risk assessment, Variability, Uncertainty, components of risk assessment
7		Planning and Scoping process, Hazard Identification
8		Exposure assessment, modeling and monitoring approaches
9		Basic Dose-Response Calculations & Concepts: Non-linear dose response Linear dose-response assessment
10		Quantitative microbial risk assessment (QMRA)
11		Principles of applying risk results, Acceptable risk, Risk characterization



		Risk management and risk communication		12
		Factors that affect the nature and magnitude of the risk, Examples of EHRA		13
		Risk assessment software demonstration		14
		Risk assessment software demonstration		15
		Case study presentation and discussion		17

تاریخ امتحان پایان ترم: بر اساس تقویم آموزش