



Ağrı İbrahim Çeçen University
Graduate School of Education
Department of Occupational Health and Safety
2020-2021 Fall Semester

DERSİN KODU	COURSE TITLE	C/S	T	A	TA	ECTS
İSG503	Risk Management and Assessment	Z	3	0	3	6

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Course Objective and Description

- The main purpose of this course; Within the scope of occupational health and safety practices, it is to gain the ability to identify hazards, identify risks and make risk analysis and assessment by choosing appropriate risk assessment methods. This course covers the basic concepts in risk assessment, risk management and process, risk assessment methods and techniques, the place of risk assessment in legislation and obligations.

Course Objectives and Outcomes

- ☐ Knowing the basic concepts of the risk assessment process
- ☐ Having knowledge about the process of identifying hazards and identifying risks in workplaces
- ☐ To be able to explain the importance and benefits of risk management in occupational health and safety.
- ☐ Having knowledge about the place of risk assessment in laws and regulations
- ☐ Having knowledge about risk assessment methods and practices

Course Schedule

Weeks	Subject	Readings	Tasks
1. Week	Basic concepts in risk assessment (Danger, uncertainty, risk, etc.)	1. Özkılıç, Tehlike ve risk kavramları – terminolojisi 2. Kalkan, M. E., & Deniz, V. (2015). Risk kavramı üzerine.	
2. Week	Risk management, importance benefits and risk management process	3. Andaç, M. (2002). Risk Analiz ve Yönetimi. (sayfa 1-3-4) 4. Boehm, B. W. (1991). Software risk management: principles and practices.	Homework 1: Writing a literature review article on risk management in occupational health and safety
3. Week	Risk assessment in legislation	5. İş Sağlığı Ve Güvenliği Risk Değerlendirmesi Yönetmeliği	
4. Week	Stages of risk assessment	6. Özkılıç, Ö. (2005). İş Sağlığı ve Güvenliği, Yönetim Sistemleri ve Risk Değerlendirme Metodolojileri.	
5. Week	Stages of risk assessment		Homework 2: Identify possible hazards (taking into account the hazard identification

			process) by drawing out a work flow chart of a job done in a workplace.
6. Week	Selection of risk assessment methods Pre-hazard risk analysis (PHA)	7. Üst yapı inşaatlarında ön tehlike analizi (PHA) ile risk değerlendirmesi.	
7. Week	Risk assessment methods Primary Risk Analysis – Using Check-List (Preliminary Risk Analysis (PRA)- What if.. Job Safety Analysis (JSA))	8. Ceylan, H., & Başhelvacı, V. S. (2011). Risk değerlendirme tablosu yöntemi ile risk analizi: bir uygulama. .	Homework 3. Preparing the report by making risk analysis for any workplace using the L-type matrix method.
8. Week	Risk assessment methods (Risk assessment decision matrix methods /L type, X type and 3*3 Matrix Methods)	9. Zaloğlu, D. I. (2019). İş sağlığı ve güvenliği kapsamında fosil lokalitesinde Fine-Kinney metodu ile risk değerlendirilmesi	
9. Week	Risk assessment methods (Fine kinney method, Possible Failure Modes and Effects Analysis Methodology (FMEA)	10. Kahraman, Ö., & Demdrer, A. (2010). OHSAS 18001 Kapsamında FMEA Uygulaması.	
10. Week	Risk assessment methods (Fault tree analysis (FTA), Event tree analysis (ETA), Cause and effect analysis)	11. Akman, A.(2015). Kimya Sektöründe Tehlike ve İşletilebilirlik (HAZOP) Analizi. <i>Çalışma Dünyası Dergisi</i> , 3(2) : 59-74	
11. Week	Risk assessment methods (Hazard and Operability Studies HAZOP)		
12. Week	Risk assessment methods (Security Audit Analysis)		Homework 4: Find at least 5 articles and at least 3 thesis samples prepared using the Hazard and Operability Study Methodology (HAZOP) method, one of the risk assessment methods, and prepare a report summarizing the studies done.
13. Week	Risk assessment practices		
14. Week	Risk assessment practices		

Resources

- ÖZKILIÇ, Ö., Müh, K. Y., Başkanlığı, İ. T. İ. G., & İşmüfettişi, Ç. E. B. TEHLİKE VE RISK KAVRAMLARI–TERMINOLOJİ. <http://www.onderakademi.com/blog/sempozyum-sunumlar/terminoloji.pdf>
- Kalkan, M. E., & Deniz, V. (2015). RİSK KAVRAMI ÜZERİNE. *Mesleki Sağlık ve Güvenlik Dergisi (MSG)*, 13(48). <https://www.ttb.org.tr/dergi/index.php/msg/article/view/44>
- Andaç, M. (2002). Risk Analiz ve Yönetimi. *İSG, Mayıs-Haziran*, 14. <https://birim.ailevecalisma.gov.tr/media/6417/riskanaliziveyonetimi.pdf>
- Boehm, B. W. (1991). Software risk management: principles and practices. *IEEE software*, 8(1), 32-41. <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=62930>
- İŞ SAĞLIĞI VE GÜVENLİĞİ RİSK DEĞERLENDİRMESİ YÖNETMELİĞİ <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16925&MevzuatTur=7&MevzuatTertip=5>
- Özkılıç, Ö. (2005). İş Sağlığı ve Güvenliği, Yönetim Sistemleri ve Risk Değerlendirme Metodolojileri. *TİSK Yayınları, Ankara*.
- Üst yapı inşaatlarında ön tehlike analizi (PHA) ile risk değerlendirmesi. https://scholar.google.com.tr/scholar?hl=tr&as_sdt=0%2C5&q=%3C3%9CST+YAPI+%4%B0N%5%9EAATLARINDA+%3C3%96N+TEHL%4%B0KE+ANAL%4%B0Z%4%B0+%28PHA%29+%4%B0L+E+%4%B0SK+DE%4%9EERLEND%4%B0RMES%4%B0&btnG=
- Ceylan, H., & Başhelvacı, V. S. (2011). Risk değerlendirme tablosu yöntemi ile risk analizi: bir uygulama. *Uluslararası Mühendislik Araştırma Ve Geliştirme Dergisi*, 3(2), 25-33.
- Zaloğlu, D. I. (2019). İş sağlığı ve güvenliği kapsamında fosil lokalitesinde fine-kinney metodu ile risk değerlendirilmesi (Master's thesis, Başkent Üniversitesi Fen Bilimleri Enstitüsü).
- Kahraman, Ö., & Demdrer, A. (2010). OHSAS 18001 Kapsamında FMEA Uygulaması. *Makine Teknolojileri Elektronik Dergisi*, 7(1), 53-68.
- Akman, A.(2015). Kimya Sektöründe Tehlike ve İşletilebilirlik (HAZOP) Analizi. *Çalışma Dünyası Dergisi*, 3(2) : 59-74

Expectations from Participants

- ❖ All participants are expected to attend all classes by making the necessary preparations (detailed in the readings and tasks section) and to be active during the lesson.
- ❖ All assignments will be sent to the e-mail address given above.

Evaluation:

Homework1+Homework2+Homework3: 40 points	Midterm Grade
MIDTERM EXAM: 60 points	Final Grade