**Master’s Degree Program in Occupational Health and Safety**

Master’s degree in Occupational Health and Safety requires the completion of minimum of 10 courses (30 credits), the graduate seminar (non-credit) and the term project (non-credit). Students may select courses, in consultation with their advisors, from the following list of courses. Students must earn at least half of the credits required for the degree from among courses with the “ISG” course code designation. Students may choose the remaining credits among courses from other graduate programs with the approval of advisor.

**Course List**

ISG 501 Fundamentals of Occupational Health and Safety

ISG 502 Occupational Health and Safety Legislation

ISG 511 Risk Management and Assessment

ISG 512 Industrial Hygiene and Environmental Surveilance

ISG 521 Occupational Diseases

ISG 522 Industrial Ergonomics

ISG 531 Workplace Hazards

ISG 532 Organizational Behavior and Industrial Psychology

ISG 541 Applied Statistics in Occupational Health and Safety

ISG 542 Safety and Health in Industry

ISG 581-589 Special Topics in OHS I - IX

ISG 500 Seminar

ISG 580 Term Project

**Course Descriptions**

**ISG 501 Fundamentals of Occupational Health and Safety**

**(İş Sağlığı ve Güvenliğinin Temelleri) (3+0+0) 3 /8 ECTS**

Fundamental concepts and approaches in occupational health and safety (OHS), historical development. International and national OHS statistics, comparative relationship between level of development and OHS, safety and prevention culture. International and national organizations, OHS services, OHS boards.

**ISG 502 Occupational Health and Safety Legislation**

**(İş Sağlığı ve Güvenliği Hukuku) (3+0+0) 3 / 8 ECTS**

Basic law, legal norms, labor law. Concepts of worker, employer, subcontractor, employer representative. Rights and obligations of parties to labor contracts. National legislation on occupational health and safety (OHS), organization of the OHS services, supervision of state officials, social security services and legislation, legal aspects of occupational accidents and diseases. Professional ethics, ethical issues and their resolution. Autonomy, confidentiality, professional independence and social responsibility.

**ISG 511 Risk Management and Assessment**

**(Risk Yönetimi ve Değerlendirmesi) (3+0+0) 3 / 8 ECTS**

Fundamentals of risk assessment, concepts of hazards and risks. Identification of sources of hazards and their classification, analysis and control of arising risks. Workplace analysis, occupational accidents, theories of accident causation, accident analysis, emergency planning, risk assessment methods, case studies. Risk management systems, planning, surveillance and auditing. International risk management system standards.

**ISG 512 Industrial Hygiene and Environmental Surveillance**

**(Endüstriyel Hijyen ve Ortam Gözetimi) (3+0+0) 3 / ECTS**

Fundamentals of industrial hygiene, its terminology. Chemical, physical and biological hazards in the workplace, environmental surveillance and monitoring methods. The concept of exposure, quantitative methods.

**ISG 521 Occupational Diseases (Meslek Hastalıkları) (3+0+0) 3 / 8 ECTS**

Classification of occupational diseases, etiology, medical screening, diagnosis. Introduction to epidemiology, biological hazards and toxicology.

**ISG 522 Industrial Ergonomics (Endüstriyel Ergonomi) (3+0+0) 3/ 8 ECTS**

Man-machine systems, concepts of safety, efficiency and effectiveness. Anthropometric, physiological, anatomical and biomechanic attributes of workers. Man-machine interface design. Mental work, office work environments, health, safety, and occupational accidents.

**ISG 531 Workplace Hazards (Risk Etmenleri) (3+0+0) 3/ 8 ECTS**

Classification of hazards, national and international standards. Physical hazards and their effect on health, identification and control of risk. Chemical risks, classification of chemical materials, environmental sampling and personal exposure monitoring. Safety for laboratory work, dynamics and chemistry of fire, classification of fires, inflammable - explosive atmospheres, fire prevention, action plan in case of fire, fire extinction systems. Biological hazards, industry specific hazards.

**ISG 532 Organizational Behavior and Industrial Psychology**

**(Örgütsel Davranış ve Çalışma Psikolojisi) (3+0+0) 3/ 8 ECTS**

Theories of organizational behavior and management, historical development. Organizational culture, professional life and job analysis. Employee selection, management, leadership, motivation, job satisfaction, group dynamics, team management. Communication, performance evaluation and feedback, requirements analysis, training. Counterproductive work behavior, stress and coping skills.

**ISG 541 Applied Statistics in Occupational Health and Safety**

**(İş Sağlığı ve Güvenliğinde Uygulamalı İstatistik) (3+0+0) 3/ 8 ECTS**

Types and sources of data in occupational health and safety. Data collection methods, summarization and represenation of data. Basic statistical methods, estimation, inference, hypothesis tests and their properties.

**ISG 542 Safety and Health in Industry (İş Kollarına Özel Sağlık ve Güvenlik) (3+0+0) 3/ 8 ECTS**

Occupational health and safety risks and control measures. Personal protective equipment, health and safety signs specific to construction, mining, manufacturing, textile, food, logistics and other industries.

**ISG 581-589 Special Topics in OHS I – IX (İSG Alanında Özel Konular I-IX) (3+0+0) 3/ 8 ECTS**

Courses on contemporary topics and practices in occupational health and safety.

**ISG 500 Seminar (Seminer) Non-credit/ 2 ECTS**

Presentations of research and applications in occupational health and safety by graduate students, guests and/or faculty.

**ISG 580 Term Project (Dönem Projesi) Non-credit/ 16 ECTS**

Project work to be performed by the graduate student on a topic of occupational health and safety supervised by a faculty member.