

COURSE CONTENTS

COMPULSORY COURSES

BIOD 506 Scientific Research Techniques, Ethics, and Academic Writing (6 ECTS):

The aim of the course is to enable a student to use scientific research methods to solve a problem that is faced with forensic science on the basis of analytical thinking. To give the student who completes the contents of the course, the ability to write reports in the process of scientific research methods for solving events in forensic sciences by interpreting the findings obtained in data collection, modeling, and data analysis.

BIOD 604: Recently Developing Infectious Diseases I: Bacteria and Toxins. 3 credits.

Covers the microbiology, pathogenesis, clinical effects, and epidemiology of bacteria and toxins that pose a threat to global health or can be used as biological weapons.

BIOD 605: Recently Developing Infectious Diseases II: Bacteria and Toxins. 3 credits.

Covers the microbiology, pathogenesis, clinical effects, and epidemiology of bacteria and toxins that pose a threat to global health or can be used as biological weapons.

BIOD 609: Biodefense Strategies and Policies. 3 credits.

It introduces the bio-defense and biosecurity strategies and policies of Turkey, other nations, and international organizations. These policies assess the effectiveness of strengthening defenses, improving intelligence, increasing surveillance, preventing the proliferation of weapons, and strengthening norms. Examines the interaction of bio-defense and biosecurity with the homeland, national, and international security.

BIOD 620: Global Health Safety Policy. 3 credits.

Explores the problems that arise with the relationship between health and safety in the rapidly changing and developing international conjuncture. Examines the origin and development of the concept of health safety. Analyzes the strategic impact of the creation and implementation of infectious disease outbreaks, global health safety case studies, global health management, and Turkey's global health safety policy.

BIOD 710: Preparation for Health Safety. 3 credits.

Examines national and international public health, medical preparedness, and response in natural disasters, terrorist acts, disease outbreaks. Explores organizational and policy architecture, implementation challenges, and strategies to prevent, detect, and mitigate these threats.

ELECTIVE COURSES

BIOD 602 Forensic Microbiology and Virology

Based on the indispensability of forensic microbiology and virology knowledge in the fight against bioterrorism, this course will cover the history of biological attacks, anthrax letter attacks and HIV transmission in Libya Children's Hospital, and methods of crime scene investigation, evidence gathering, and origin determination in the light of lawsuits filed in this context.

BIOD 604 - Combating Mass Panic and Social Irregularities Caused by Bioterrorism

The fear of a biological attack or encounter is a serious problem that needs to be fought. In this context, infectious diseases and public health professionals, physicians, nurses, and attendant staff in hospital emergencies, as well as pharmacists, psychologists are the primary force to deal with panic spread throughout an entire city. Roadmaps developed to include large segments of the public in response to bioterrorism constitute the content of the course.

BIOD 610 - Advanced Issues in Global Health Security

Covers different topics depending on the instructor's expertise. Covers ethical, legal, scientific, security, political, and/or policy aspects of Global Health Security, current issues, and research.

BIOD 621 - Ethics and International Security

Aims to discuss the dilemmas that arise in acting ethically in an international system where there is no consensus on ethical issues. Using ethical theory and social science research, students will develop, apply, and justify their own perspective on an ethical issue related to international security. Ethical issues related to nuclear, biological, and chemical weapons faced by researchers, managers, and practitioners will be enclosed.

BIOD 622 - Negotiation in the International Arena

Provides students with concepts and tools to analyze complex negotiation processes and introduces them to the challenges faced by international negotiators. Students will read the latest findings from this research as well as frameworks and perspectives that guide scientific research on negotiation; They will analyze actual cases of negotiation in the fields of security, trade, and the environment and learn about key issues related to the agendas of nations and international organizations.

BIOD 705 - Intelligence: Theory and Practice

The intelligence cycle encompasses intelligence theory and practice, including the organization of the intelligence community, and the origins and effects of recent reforms. Examines the abilities and limitations of different disciplines, analytical methodologies, shortcomings, and the relationship

between intelligence and politics. Analyzes challenges that arise by gathering and analyzing intelligence on weapons of mass destruction carried out by states and terrorists.

BIOD 706 - Nuclear, Biological and Chemical Weapons Policy and Safety

Investigates the causes and consequences of the proliferation of nuclear, biological, and chemical weapons. Includes historical, technological, normative, and strategic factors that encourage and limit the proliferation of these weapons. Addresses the motivation of states to develop these weapons and the security-related debates of the proliferation of nuclear, biological, and chemical weapons.

BIOD 709 - Prevention of Propagation and Control of Arms

Examines the series of national and international measures used to slow, halt, and reverse the proliferation of nuclear, biological, chemical, and ballistic weapons. Aims to provide insight into the aspects of supply and demand for the increase in weapons.

BIOD 722 - Review of Terrorist Groups

Introduction to terrorism, including the history and evolution of terrorism, covers case studies of key terrorist groups, the current nature of the terrorist threat, and counter-terrorism strategies.

BIOD 725 - Weapons of Terrorism and Mass Destruction

Examines the capabilities and potential of terrorists to acquire and use chemical, biological, radiological, and nuclear (CBRN) weapons. The history of CBRN terrorism provides an in-depth understanding of the current national and international policy tools to address the current challenges posed by this threat and this threat.

BIOD 726 - Agricultural Terrorism and Food Safety

Analyzes global food safety threats, animal and plant diseases, access to clean water, agricultural terrorism, and antimicrobial resistance, including those related to climate change and environmental degradation. Investigates national and global health, economic, social, and ethical effects of these destructive forces. Examines strategies to improve the security of global food production and supply systems.

BIOD 751 – Bio-surveillance

Provides reliable early warning of disease outbreaks and understanding the capabilities needed to identify etiological agents. Evaluates the strengths and limitations of doctors, laboratories, epidemiologists, aerosol sensors, and surveillance systems. Investigates difficulties arising through the integration and analysis of the collected information.

BIOD 760 - National Security Technology and Policy

Introduces students to the intersection of science, technology, and politics in national security. Examines the formation of science policy, discusses the roles played by actors who play a role in science policy, types of data that can be collected, uncertainties in the data, and how the availability of data affects science policy, and how science policy decisions are taken. Topics to be discussed include weapons of mass destruction, non-lethal weapons, nanotechnology, bioengineering, energy security, and pandemic influenza, and other pandemic agents.

BIOD 762 - Biotechnology and Society

Examines the growing role of biotechnology in modern society, including its benefits to human and animal health, industrial applications, and the potential for abuse. Analyzes the important variables affecting the revolution in biotechnology and the effects in both developed and developing countries. Explores the political, economic, social, legal, safety, and ethical implications of advances in life sciences and biotechnology.

BIOD 766 - Development of Vaccines and Therapeutics

Analyzes the process of developing new medical countermeasures against biological weapons, emerging infectious diseases such as SARS and pandemic flu. Addresses the scientific, technical, political, regulatory, and economic barriers to developing new vaccines and therapeutics. Examines the causes and possible solutions to public and private sector constraints.

BIOD 540 - International Relations

Focuses on the changing nature of international politics, post-Cold War security issues, the impact of the global economy and the information technology revolution, the increasing role of global companies and non-governmental organizations, and the rise of other non-security issues in the emerging international agenda.

BIOD 630 - Emergency Planning and Preparedness

Provides an understanding of the problems that arise in the development of plans and policies for both natural and man-made disasters. Provides an overview of the nature of the challenges posed by different types of disasters; regulatory requirements, sample plans, equipment requirements, collateral and mutual assistance support agreements, and methods of testing and updating plans.

BIOD 631 - Disaster Response and Recovery

Investigates the principles and practices that enable effective disaster response operations and management. Examines the nature of disasters, the roles, and responsibilities of various organizations related to models, and emergency management for intervention operations in Turkey.

BIOD 635 - Emergency Preparation: Inter-Institutional Communication and Coordination

Considers complex relationships between government agencies and sectors for effective emergency management in planning, intervention, recovery, and risk reduction. Explores intergovernmental management and network management theories to understand the nature of intergovernmental problems and potential models for cooperation.

BIOD 756 - Global Health Systems and Health Policy Analysis

Gives students knowledge and skills to critically analyze the structures, functions, management policies, and performance of health systems; it teaches designing alternative action and reform policies that will identify problems and solutions and contribute to achieving goals. Prepares students for system analysis and policy analysis, enabling them to associate problems, goals, and solutions with a broader context.

BIOD 757 - Public Policy in Global Health and Medical Practice

Introduces international medical policy. Covers the elimination of differences, funding, the ethical concerns of biomedical research, and the globalization of health and medical policies for the use of new technologies.

BIOD 758 - Global Threats and Health Policy

Researches Medical and Health Management in a global context, biosafety, health and natural and human-induced disasters, humanitarian and emergency assistance, vaccine development, behavior and Health, Critical Infrastructures, Bioethics and resource allocations.

BIOD 765 - Human Smuggling and Trafficking

Examines the rapidly growing occurrence of human smuggling and trafficking. Addresses the underlying causes of the growth of these problems and their global, far-reaching, diverse social, political, and economic consequences. Discusses the role of technology in spreading these problems, including online platforms and social media. Examines occurrences in conflict zones, developing and developed societies.

BIOD 767 - Global Comparative Medical Practices, Ethics, and Law

Examines the main ethical issues that arise in health policy and medical practice in the world. Studies subject comparatively and applies various ethical frameworks to study them. Considers various legal and political solutions. Discusses biomedical ethical principles by associating them with important thought currents in political philosophy, including utilitarianism, libertarianism, and communitarianism.