SUBJECTS OUTSIDE OF RESEARCH FIELDS

Code	Course type	Title of course	Credits
HKDID0001A	**M**	**Military engineering knowledge**	**2**
HKDID0002A	**M**	**Safety of Dangerous Activities**	**2**
HKDID0003A	**M**	**Protection of critical infrastructure**	**2**
HKDID0004A	**M**	**Information operations**	**2**
HKDID0005A	T	Theory and methodology of scientific research	3
HKDID0006A	**M**	**Military Logistics**	**2**
HKDID0007A	M	Basics of Military Science	2
HKDID0008A	M	Classics of Military Science	2
HKDID0309A	T	Processing and publication of research data	2
HKDID0319A	T	PhD Research - Methodology of Military Engineering	2
HKDID0303	T	Scientific research I.	12
HKDID0304	T	Scientific research II.	12
HKDID0305	T	Scientific research III.	12
HKDID0306	T	Scientific research IV.	12
HKDID0307	T	Scientific research V.	15
HKDID0308	T	Scientific research VI.	15
HKDID0312	T	Scientific research VII.	15
HKDID0313	T	Scientific research VIII.	15
HKDID0314	R	Dissertation activity V.	5
HKDID0315	R	Dissertation activity VI.	5
HKDID0316	R	Dissertation activity VII.	5
HKDID0317	R	Dissertation activity VIII.	5
HKDID0500	S	Comprehensive examination	20

M – midterm evalutaion
T – term mark
R – report
S – signature

Courses marked with bold are obligatory for the first semester rigorosum.

HKDID1100 – MILITARY ENGINEERING INFRASTRUCTURE THEORY RESEARCH AREA

MANDATORY-ELECTIVE COURSES (6 credits, exam)

Code	Course type	Title of course	Responsible
HKDID1103A	ME	Implementation of the FP tasks' new technical equipment and principles, opportunities of application of those	Dr. Tibor KOVÁCS
HKDID1106A	**ME**	**Physical protection of military critical infrastructure**	**Dr. Zoltán KOVÁCS**

Course marked as bold is the mandatory-elective course of the research area in the 2nd semester.

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID1211A	EC	Blasting tasks and technics	Dr. Zoltán KOVÁCS
HKDID1214A	EC	IED & VBIED survey and neutralization	Dr. Zoltán KOVÁCS
HKDID1216A	EC	New tools for technical support of peace support operations	Dr. Tibor KOVÁCS
HKDID1217A	EC	Physical protection of military critical infrastructure	Dr. Zoltán KOVÁCS
HKDID1218A	EC	Possible ways of building protection against blast attacks	Dr. Zsuzsanna BALOGH

RESEARCH SEMINAR COURSES (2 credits, practical course)

Code	Course type	Title of course	Responsible
HKDID1412A	P	Blasting tasks and techniques for iceflood protection	Dr. Zoltán KOVÁCS
HKDID1414A	P	Environmental aspects of military blasting tasks	Dr. Zoltán KOVÁCS

HKDID2100 – MILITARY TECHNOLOGY AND ROBOTICS RESEARCH AREA

MANDATORY-ELECTIVE COURSES (6 credits, exam)

Code	Course type	Title of course	Responsible
HKDID2103A	**ME**	**Theory, methodology and NATO aspects of R&D in military technology**	**Dr. György KENDE**

Course marked as bold is the mandatory-elective course of the research area in the 2nd semester.

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID2204A	EC	Past, present and future of the Hungarian R&D in military technology.	Dr. György KENDE
HKDID2224A	EC	Military related R&D experimentation-planning – case-studies	Dr. Gábor GYULAI
HKDID2233A	EC	Effects of a generational modernization in the HDF on Force Readiness	Dr. Imre PORKOLÁB
HKDID2234A	EC	Life cycle of military technology equipment	Dr. Gábor GYULAI

HKDID3100– DEFENC ELECTRONICS, IT AND COMMUNICATION RESEARCH AREA

MANDATORY-ELECTIVE COURSES (6 credits, exam)

Code	Course type	Title of course	Responsible
HKDID3101A	**ME**	**Theory and practice of electronic warfare**	**Dr. Zsolt HAIG**
HKDID3107A	ME	Information Infrastructure	Dr. László KOVÁCS
HKDID3108A	ME	Cyber terrorism	Dr. László KOVÁCS
HKDID3116A	ME	Quasi Monostatic – "RF network centric" Air Defence Systems (ADS)	Dr. István BALAJTI

Course marked as bold is the mandatory-elective course of the research area in the 2nd semester.

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID3201A	EC	Bases of military system's modeling	Dr. György SERES
HKDID3219A	EC	ICT basis of interactive knowledge transfer	Dr. György SERES
HKDID3221A	EC	Information Infrastructure	Dr. László KOVÁCS
HKDID3222A	EC	Cyber terrorism	Dr. László KOVÁCS
HKDID3236A	EC	Technical research of the infocommunication support in NATO multinational operations	Dr. Tibor FARKAS
HKDID3241A	EC	Cloud computing and open source server solutions and their security	Dr. János RIKK
HKDID3243A	EC	Introduction to cryptography	Dr. Gergely SZÉKELY
HKDID3246A	EC	"In Situ" Radar-, Electronic Protection Measures (EPM/ECCM), Performance Checks (RPC) for researchers	Dr. István BALAJTI
HKDID3247A	EC	Modern technological and organizational processes in the management of battlefield infocommunication networks	Dr. Tibor FARKAS

RESEARCH SEMINAR COURSES (2 credits, practical course)

Code	Course type	Title of course	Responsible
HKDID3407A	P	Application of GIS in defence electronic systems	Dr. Haig Zsolt HAIG
HKDID3409A	P	Ruggedized IT Devices	Dr. Sándor MUNK
HKDID3410A	P	Personal and Wearable IT Devices	Dr. Sándor MUNK
HKDID3415A	P	Information Infrastructure	Dr. László KOVÁCS
HKDID3416A	P	Cyber terrorism	Dr. László KOVÁCS
HKDID3419A	P	Internet-based IT Services	Dr. Sándor MUNK
HKDID3428A	P	Development trends in the deployable infocommunication system of the Hungarian Defence Forces	Dr. Tibor FARKAS
HKDID3429A	P	Issues of infocommunication capabilities, applications and technical equipements in the joint operations of the Hungarian Defense Forces	Dr. Tibor FARKAS
HKDID3431A	P	Cybersecurity in Public Administration	Dr. Csaba KRASZNAY

HKDID4100 – MILITARY ENVIRONMENT SECURITY RESEARCH AREA

MANDATORY-ELECTIVE COURSES (6 credits, exam)

Code	Course type	Title of course	Responsible
HKDID4102A	**ME**	**Environmental protection and security**	**Dr. László FÖLDI**
HKDID4105A	ME	Chemical safety	Dr. László FÖLDI

Course marked as bold is the mandatory-elective course of the research area in the 2nd semester.

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID4201A	EC	Weapons of mass destruction	Dr. Tamás BEREK
HKDID4202A	EC	Chemistry of toxic substances	Dr. László FÖLDI
HKDID4206A	EC	Radio-ecology	Dr. József CSURGAI
HKDID4208A	EC	Non-proliferation actions against the weapons of mass destruction	Dr. László FÖLDI
HKDID4210A	EC	Environmental management	Dr. László FÖLDI
HKDID4211A	EC	Nature conservation	Dr. László FÖLDI
HKDID4215A	EC	Technologies of monitoring and extermination of weapons of mass destruction	Dr. László FÖLDI
HKDID4216A	EC	NBC threat analysis of the territory of Hungary	Dr. József CSURGAI
HKDID4221A	EC	Mathematical methods of risk analysis	Dr. József CSURGAI
HKDID4238A	EC	Containerised wastewater treatment systems of military camps	Dr. Tamás KARCHES
HKDID4242A	EC	Organic micropollutants and environmental safety	Dr. Judit KNISZ
HKDID4243A	EC	Soil conservation	Dr. Dóra BEKE
HKDID4244A	EC	Hydrobiology	Dr. Éva ÁCS

RESEARCH SEMINAR COURSES (2 credits, practical course)

Code	Course type	Title of course	Responsible
HKDID4401A	P	Air purity protection	Dr. László FÖLDI
HKDID4405A	P	Waste handling and waste management	Dr. László FÖLDI
HKDID4406A	P	Turbulent diffusion of air pollutants	Dr. József CSURGAI
HKDID4421A	P	Evaluation of NBC and fire situations	Dr. József CSURGAI
HKDID4439A	P	Climate change, climate extremes	Péliné Dr. Csilla NÉMETH

HKDID5100 – DEFENCE LOGISTICS AND DEFENCE ECONOMICS RESEARCH AREA

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID5219A	EC	Modeling and Optimization of Logistics Networks	Dr. Bence TÓTH
HKDID5220A	EC	Numerical Solution of Logistics Problems	Dr. Bence TÓTH
HKDID5224A	EC	Case Studies in Logistics	Pató Gáborné Dr. Beáta SZŰCS

RESEARCH SEMINAR COURSES (2 credits, practical course)

Code	Course type	Title of course	Responsible
HKDID5407A	G	Supply Chain Designing and Security	Dr. Pavel FOLTIN
HKDID5412A	P	Network Analysis of Critical Infrastructures	Dr. Bence TÓTH

HKDID6100 – SECURITY TECHNOLOGY RESEARCH AREA

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID6212A	EC	Applied statistics	Dr. István HORVÁTH

HKDID7100 – DISAESTER MANAGEMENT RESEARCH AREA

MANDATORY-ELECTIVE COURSES (6 credits, exam)

Code	Course type	Title of course	Responsible
HKDID7110A	**ME**	**Disaster management**	**Dr. József SOLYMOSI**
HKDID7109A	ME	Management of industrial safety	Dr. Gyula VASS
HKDID7111A	ME	Civil protection	Dr. László TEKNŐS
HKDID7112A	ME	Nuclear safety and emergency response	Dr. György PÁTZAY
HKDID7113A	ME	Fire protection	Dr. János BLESZITY
HKDID7115A	ME	Safety of Dangerous Activities	Dr. Lajos KÁTAI-URBÁN
HKDID7116A	ME	Applied Firefighting	Dr. Ágoston RESTÁS

Course marked as bold is the mandatory-elective course of the research area in the 2nd semester.

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID7217A	EC	Dangerous substances and response	Dr. József DOBOR
HKDID7218A	EC	Disaster management tasks for the safety of critical systems and installations	Dr. Balázs BOGNÁR
HKDID7219A	EC	Radiology	Dr. György PÁTZAY
HKDID7220A	EC	Disaster management monitoring systems	Dr. Gyula VASS
HKDID7226A	EC	Protection against major accidents	Dr. Lajos KÁTAY-URBÁN
HKDID7228A	EC	Dangerous goods transportation and logistics	Dr. Gyula VASS
HKDID7229A	EC	Planning, organising and executing technical rescue	Dr. Péter PÁNTYA
HKDID7230A	EC	Planning, organising and executing firefighting	Dr. Ágoston RESTÁS
HKDID7238A	EC	Population protection	Réka KIROVNÉ Dr. RÁCZ
HKDID7239A	EC	Risk management of industrial technologies	Dr. Zsolt CIMER

RESEARCH SEMINAR COURSES (2 credits, practical course)

Code	Course type	Title of course	Responsible
HKDID7418A	P	Basic knowledge in radiation protection and nuclear accident preparedness	Dr. György PÁTZAY
HKDID7419A	P	Case studies of industrial safety	Dr. József DOBOR
HKDID7420A	P	Risk and Consequence Analyses in the field of Industrial safety	Dr. Zsolt CIMER
HKDID7423A	P	Fire prevention activities	Dr. Ágoston RESTÁS
HKDID7424A	P	The safety of firefighter interventions	Dr. Péter PÁNTYA
HKDID7426A	P	Relationship between disasters and the geographic space	Siposné dr. Klára KECSKEMÉTHY

HKDID8100 – AVIATION AND AERONAUTICS RESEARCH AREA

ELECTIVE COURSES (3 credits, exam)

Code	Course type	Title of course	Responsible
HKDID6216A	EC	Safety Engineering	Dr. László POKORÁDI
HKDID6217A	EC	Modelling of Technical Systems	Dr. László POKORÁDI
HKDID6218A	EC	Modelling of Maintenance processes	Dr. László POKORÁDI
HKDID8210A	EC	Automatic Flight Control Systems of the UAVs	Dr. Róbert SZABOLCSI

RESEARCH SEMINAR COURSES (2 credits, practical course)

Code	Course type	Title of course	Responsible
HKDID6415A	P	Human Factors in flight safety, causes of sudden incapacitation and human error from the aspects of Human-System Integration, possible countermeasures and prevention by tools of ergonomy and technical-technological solutions	Dr. Sándor András SZABÓ
HKDID8409A	P	Programming in MATLAB	Dr. Róbert SZABOLCSI