

# Card of Course

<b>Description of Course:</b>	
Code of course	-----
Name of course	<b>Air Traffic Engineering</b>
Version of course	2013/2014
<b>A. Place of the course in system of study</b>	
Level of education	Intermediate
Degree of education	engineering
Kind of education	Full-time studies
Field of study	Transport
Profile of study	General academic profile
Specialisation	Main field
Place of teaching of course	Faculty of Transport
Place of realization of course	Department of Air Transport Engineering
Coordinator of course	Anna Stelmach, Ph.D., Eng.
<b>B. General characteristic of the course</b>	
Block of courses	main field
Group of courses	specialization
Level of course	intermediate
Status of course	faculty with choice limited
Language of course	english
Nominal semester	-
Academic year	2013/2014
Preliminary requirements	-----
Limit of number of students	20

C. Effects of education and manner of teaching	
Purpose of course	To give the knowledge and basic skills to perform specific tasks in the field of techniques analysis and of air traffic control: measurements of traffic parameter, measurements of air traffic control parameters, sector capacity, control of the aircraft streams flow.
Methods of evaluation	Project (with calculations)
Effects of education	Look – table 1
Form of didactic studies and number of hours per week	Project – 2 hours
Contents of education	<ol style="list-style-type: none"> <li>1. Analysis of air traffic on a daily basis, weekly and monthly basis.</li> <li>2. Determination of the load characteristics of air traffic control services.</li> <li>3. Analysis of air traffic IFR / VFR on a weekly basis, in accordance to air carriers.</li> <li>4. Analysis of the use of controlled domestic airports by air carriers on a weekly basis.</li> </ol>
Methods of verification of effects of education	Look – table 1
Examination	-
Literature	<ol style="list-style-type: none"> <li>1. Airport Planning Manual (ICAO Doc 9184).</li> <li>2. Aerodrome Design Manual (ICAO Doc 9157).</li> <li>3. Airport Services Manual (ICAO Doc 9137).</li> <li>4. George L. Donohue: Air Transportation Systems Engineering, American Institute of Aeronautics and Astronautics, 2001.</li> </ol>
www of course	Does not have
D. Student's job	
Number of credits ECTS	3
Number of hours of student's job for achievement of education's effect (description):	43 h: work on the project activities 10 h, study of the literature for project 15 h, performance presentation or prepare the documentation project (calculations and drawings form) 15 h, consultations 3 hours.
Number of credits ECTS on the course with direct participation of academic teacher	1. ECTS (13 h: 10 h - work on the project activities, consultations 3 h)

Number of credits ECTS on practical activities on the course	2 ECTS (28 h: work on the project activities 10 h; performance presentation or prepare the documentation project (calculations and drawings form) 15 hours, consultations 3 h
<b>E. Additional informations</b>	
Notes	
Date of last modernization	31.10.2013

**Table 1**

<b>General academic profile</b>			
<b>Course's effects</b>		<b>Field effects</b>	<b>Area effect</b>
<b>Knowledge</b>			
Effect:	Theoretical knowledge on air traffic engineering	Tr1A_W08	T1A_W03
Code of effect:	W_01		
Verification:	perform project		
Effect:	Knowledge on modeling parameters of the air traffic processes	Tr1A_W09 Tr1A_W12	T1A_W07 T1A_W04
Code of effect:	W_02		
Verification:	perform exercises		
Effect:	Konowledge on the requirements for the air traffic processes	Tr1A_W09 Tr1A_W12	T1A_W07 T1A_W04
Code of effect:	W_03		
Verification:	perform exercises		
<b>Skills</b>			
Effect:	Determination of the load characteristics of air traffic control services using the number of aircraft operations per day of the week.	Tr1A_U03 Tr1A_U20 Tr1A_U23	T1A_U02 T1A_U14 T1A_U16

Code of effect:	U_01		
Verification:	Performance design classes (with calculations)		
Effect:	Analysis of air traffic IFR / VFR on a weekly basis by carriers. Analysis of the use of domestic airports controlled by air carriers on a weekly basis.	Tr1A_U03 Tr1A_U20 Tr1A_U23 Tr1A_U24	T1A_U02 T1A_U14 T1A_U16
Code of effect:	U_01		
Verification:	Performance design classes		
<b>Social competences</b>			
Effect:	Is able to participate in the project team		
Code of effect:	K01	Tr1A_K03	T1A_K03
Verification:	Implementation of the project, individual and group consultation of the project, oral defense of the concepts used in the project		