DESCRIPTION OF THE COURSE OF STUDY

Course code	1032.4.BN2.B/C11.WTWB						
Name of the course in	Polish	Wymiar technologiczny współczesnego bezpieczeństwa					
	English	Technological aspects of contemporary security					

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	National security
1.2. Mode of study	Full-time studies, Extramural studies
1.3. Level of study	Second-degree
1.4. Profile of study*	General academic
1.5. Person/s preparing the course description	Prof. UJK dr Pawel Soroka/dr Tomasz Gajewski
1.6. Contact	knb@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language of instruction	Polish
2.2. Prerequisites*	First-degree national security courses

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes		Lectures	/classes						
3.2. Place of classes			es in the UJK teaching room						
3.3. Form of assessment	t		exam with assessment, passing of exercises for assessment.						
3.4. Teaching methods			Lecture and Group Discussions and Classes						
3.5. Bibliography	Requi		1. Antczak-Barzan A., Śliwa Z., Zaniewski R., Wojna XXI wieku. Poczatki wojny						
	readin		"trzeciej fali", Vizja Press&IT, Warszawa 2016.						
		0	2. Balcerowicz B., Teorie, koncepcje wojny(i pokoju) po zimnej wojnie, w: R.						
			Kuźniar (red.). Porządek międzynarodowy u progu XXI wieku, Warszawa 2005.						
			3. Balcerowicz B., Siła militarna w rzeczywistości międzynarodowej. Stan i						
			perspektywy, w: E. Haliżak, R. Kuźniar, G. Michałowska, S. Parzymies, J.						
			Simonides, R. Zięba(red.), Stosunki międzynarodowe w XXI wieku, Wydawnictwo						
			Naukowe Scholar, Warszawa 2006.						
			4. Balcerowicz B., Procesy międzynarodowe. Tendencje, megatrendy, w: R. Kuźniar						
			i inni, Bezpieczeństwo międzynarodowe, Wydawnictwo Naukowe Scholar,						
			Warszawa 2012						
			5. Dybczyński A., Zbrojenia, wyścig zbrojeń, rozbrojenie, w: T. Łoś-Nowak(red.),						
			Współczesne stosunki międzynarodowe. Podręcznik akademicki. Wydawnictwo						
			Uniwersytetu Wrocławskiego, Wrocław 2008.						
			6. Mierczyk Z., (red.), Nowoczesne technologie systemów uzbrojenia, Wojskowa Akademia Techniczna, Warszawa 2008.						
			7. Mierczyk Z., Technologie podwójnego zastosowania szansą polskiego przemysłu.						
			w: Paweł Soroka (red. naukowa), Modernizacja Wojsk Lądowych impulse						
			rozwojowym dla polskiej gospodarki (materiały konferencyjne), Polskie Lobb						
			Przemysłowe i Wojskowa Akademia Techniczna, Warszawa 2011.						
			8. Soroka P., Główne problemy modernizacji Sił Zbrojnych RP, w: M. Marszałek, C						
			Sobolewski, T. Konopka, A. Cyran (red. naukowa), Bezpieczeństwo RP w wymiarze						
			narodowym i międzynarodowym, tom I, Wyższa Szkoła Handlowa im. Bolesława						
			Markowskiego w Kielcach, Kielce 2011.						
			9. Soroka P., Rola nowoczesnych technologii w wyścigu zbrojeń, "Przegląd						
			geopolityczny", Rok 2016, tom 16.						
	Furth	er	1. Bossak M., Wybrane problemy rozwoju techniki wojskowej, w: II						
	readin	g	Międzynarodowe Sympozjum Naukowo-Techniczne, 22-23 września 1994, Gdynia.						
			2. Kuźniar R., Tradycyjne zagrożenia dla bezpieczeństwa międzynarodowego, w: R.						
			Kuźniar i inni, Bezpieczeństwo międzynarodowe, Wydawnictwo Naukowe Scholar,						
			Warszawa 2012.						
			3. Rubaj P., Wydatki Stanów Zjednoczonych na cele obronne-brzemię hegemonii, w:						
			A. Kłosiński (red.), Stany Zjednoczone. Obrona hegemonii w XXI wieku,						
			Wydawnictwo KUL, Lublin 2009 4. Wojciuk A., Bezpieczeństwo w teoriach stosunków międzynarodowych, w: R.						
			Kuźniar i inni, Bezpieczeństwo międzynarodowe, Wydawnictwo Naukowe Scholar,						
			Warszawa 2012.						
	1		maistawa 2012.						

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

4.1. Course objectives (including form of classes)

- **C** 1. To familiarize students with the basic elements of knowledge about the impact of technology, especially military technology on security. Demonstrating the role of technology, including dual-use, in the arms race (L)
- C 2. Encourage students to independently acquire information about military and dual-use technologies and provide students with basic analytical tools in the above-mentioned areas (L, C)
- C 3. Preparation of graduates for employment and career development in positions related to the application and dissemination of military technologies and in leadership positions in public organizations and institutions, including public administration bodies and services, and in commercial entities implementing sentences in the field of national security (L, C)

4.2. Detailed syllabus (including form of classes)

Lectures

- 1. Genesis, nature and causes of the arms race and the role of technology in it.
- 2. Security threats arising from the development of modern military technologies.
- 3. The arms race during the Cold War and its reduction after its end.
- 4. The scale of the arms race at the end of the 20th and early 21st centuries.
- 5. Technological development and new trends in the equipment and modernization of the armed forces.
- 6. The impact of new military technologies on the martial arts.
- 7. The development and diffusion of dual-use technologies.
- 8. Agreements and agreements during and after the Cold War.

Classes

- 1. Cooperation between the arms industry and defence R&D facilities.
- 2. Cyberspace a new dimension of threats.
- 3. The concept of a generational leap in arms production.
- 4. The professionalisation of the armed forces as one of the consequences of the development of new military technologies.
- 5. The militarisation of space through new space technologies.
- 6. The objectives of disarmament agreements and ways of monitoring their compliance.

4.3. Intended learning outcomes

Code	A student, who passed the course	Relation to learning outcomes
ပ		
	within the scope of KNOWLEDGE :	
W01	The student knows the genesis, essence and causes of the arms race and the role of	BN2A_W04
	technology in it.	
W02	The student has an in-depth knowledge of security threats arising from the	BN2A_W07
	development of modern military technologies in the conditions of globalization and	BN2A_W14
	regional economic integration.	
W03	The student is familiar with disarmament treaties during and after the Cold War.	BN2A_W09
	within the scope of ABILITIES :	
U01	The student can indicate the scale of the arms race at the end of the 20th and the	BN2A_U06
	beginning of the 21st century.	
U02	The student can present the development and dissemination of dual-use technology	BN2A_U03
U03	The student is able to analyze the objectives of disarmament agreements and ways of	BN2A_U02
	monitoring their compliance.	
	within the scope of SOCIAL COMPETENCE :	
K01	The student has the need for further self-development–improvement, supplementation	BN2A_K01
	and expansion of knowledge. Knows the reasons for lifelong learning	
K02	The student is prepared to work in managerial positions in public organizations and	BN2A_K05
	institutions, including public administration bodies and services, as well as in	
	commercial entities implementing national security sentences.	
K03	In communicating with the environment, the student uses knowledge from the field of	BN2A_K07
	security sciences.	

	Method of assessment (+/-)											
Teaching outcomes (code)	Exam oral/written*			Test* Form of classes			Effort in class* Form of classes			Self-study* Form of classes		
(coue)	Form of classes											
	L	С		L	С		L	С		L	С	
W01	+				+						+	
W02	+				+						+	
W03	+				+						+	
U01	+				+			+			+	
U02	+				+			+			+	
U03	+				+			+			+	
K01					+			+			+	
K02					+			+			+	
K03					+			+			+	

4.5. Crite	ria of ass	essment of the intended learning outcomes							
Form of classes	Grade	Criterion of assessment							
(3	The student answered the questions at the level (minimum 50-59%) according to the accepted score.							
; (T)	3,5	The student answered the questions at the level (60-70%) according to the accepted score.							
Lectures	4	The student answered the questions at the level (71-79%) according to the accepted score.							
ectı	4,5	The student answered the questions at the level (80-90%) according to the accepted score.							
Γ	5	The student answered the questions at the level (91%-) according to the accepted score.							
	3	The student answered the questions at the level (minimum 50-59%) according to the accepted score.							
м.	3,5	The student answered the questions at the level (60-70%) according to the accepted score.							
Classes (C)*	4	The student answered the questions at the level (71-79%) according to the accepted score, actively participated in the classes.							
Class	4,5	The student answered the questions at the level (80-90%) according to the accepted score, actively participated in the classes.							
	5	The student answered the questions at the level (91%-) according to the accepted score, actively participated in the classes.							

5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

	Student's workload				
Category	Full-time studies	Extramural studies			
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	55	35			
Participation in lectures*	30	15			
Participation in classes, seminars, laboratories*	15	10			
Preparation in the exam/final test*	2	2			
Others (Conferences, scientific seminars)	8	8			
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	20	40			
Preparation for the lecture*		5			
Preparation for the classes, seminars, laboratories*	10	15			
Preparation for the exam/test*	10	20			
TOTAL NUMBER OF HOURS	75	75			
ECTS credits for the course of study	3	3			

*delete as appropriate
Accepted for execution (date and legible signatures of the teachers running the course in the given academic year)