

# **ГОУ ВПО РОССИЙСКО-АРМЯНСКИЙ УНИВЕРСИТЕТ**

Составлен в соответствии с  
государственными  
требованиями к минимуму  
содержания и уровню  
подготовки выпускников по  
направлению Международные  
отношения и Положением «Об  
УМКД РАУ».

УТВЕРЖДАЮ:

Директор института:  
Калашян М.А.



**Институт: Права и Политики**

**Кафедра: Мировой политики и международных отношений**

**Автор: к.п.н., доцент Эламирян Р.Г.**

## **УЧЕБНО-МЕТОДИЧЕСКИЙ КОМПЛЕКС**

**Дисциплина: Б1.В.ДВ.01.08 Strategy, Information and the  
Future**

**Магистерская программа: Международные отношения и  
дипломатия**

**Направление: 41.04.05 Международные отношения**

**Форма обучения: очно-заочная**

**ЕРЕВАН**

## **1. Annotation**

This course is designed to introduce the transformation of the global security environment being the result of the 4<sup>th</sup> Industrial Revolution and technological transformations in the world. It introduces the main drivers of differences in security, strategy, and innovation, in order to present their impact on national security provision and policymaking in Armenia.

## **2. The level of knowledge required from the students**

The students should have advanced knowledge in national and international security studies, international relations and foreign policy, political science.

## **3. Objectives**

The main goal of the course is to address the main issues of technological developments in the world, such as 4<sup>th</sup> Industrial Revolution, AI, robotics, and so on. From this perspective the course will tie those developments to the issues of national and international security studies. Finally, the course will place Armenia into this environment and seek to model some potential scenarios for the future. A core element of the course is the practice of direct data collection for the purposes of competitiveness as well as general problem solving.

## **4. Course outcomes**

- ***Knowledge***

The main tendencies of technological development in the world, their impact on security studies, as well as potential implications on Armenia's future.

- ***Application***

To understand and analyze the current tendencies in technology – security nexus, as well as to draw parallels and potential implications of those developments on Armenia's security policy drafting and policymaking.

- ***Skills***

Comprehensive and advanced theoretical and practical skills in data collection and analysis, qualitative methods of analysis, skills of scenario building, and drafting of analytical and academic papers.

## **5. The intensity of the discipline and types of educational work according to the curriculum**

Виды учебной работы	Всего, в акад. Часах	Распределение по семестрам					
		сем	сем	— се м	сем.	сем	— сем .

<b>1</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>10</b>	<b>11</b>
<b>1.Общая трудоемкость изучения дисциплины по семестрам , в т. ч.:</b>	<b>108</b>		<b>108</b>				
1.1. Аудиторные занятия, в т. ч.:	<b>36</b>		<b>36</b>				
1.1.1.Лекции	<b>18</b>		<b>18</b>				
1.1.2.Практические занятия, в т. ч.							
1.1.2.1. Обсуждение прикладных проектов							
1.1.2.2. Кейсы							
1.1.2.3. Деловые игры, тренинги							
1.1.2.4. Контрольные работы							
1.1.3.Семинары	<b>18</b>		<b>18</b>				
1.1.4.Лабораторные работы							
1.1.5.Другие виды аудиторных занятий							
1.2. Самостоятельная работа, в т. ч.:	<b>72</b>		<b>72</b>				
1.2.1. Контактные							
1.2.2. Бесконтактные							
1.2.3. Подготовка к экзаменам							
1.2.4. Другие виды самостоятельной работы, в т.ч. (можно указать)							
1.2.4.1. Письменные домашние задания							
1.2.4.2. Курсовые работы							
1.2.4.3. Эссе и рефераты							
1.3. Консультации							
1.4. Другие методы и формы занятий **							
Итоговый контроль (Экзамен, зачет, диф. зачет/указать)	<b>Зачет</b>		<b>Зачет</b>				

## **6. Distribution of weights by control forms**

	Вес формы текущего контроля в результирующей оценке текущего контроля			Вес формы промежуточного контроля и результирующей оценки текущего контроля в итоговой оценке промежуточного контроля			Вес итоговых оценок промежуточных контролей в результирующей оценке промежуточного контроля	Вес оценки результирующей оценки промежуточных контролей и оценки итогового контроля в результирующей оценке итогового контроля
<b>Вид учебной работы/контроля</b>	<b>М1</b>	<b>М2</b>	<b>М3</b>	<b>М1</b>	<b>М2</b>	<b>М3</b>		
Контрольная работа				0,4		0,4		
Тест								
Курсовая работа								
Лабораторные работы								
Письменные домашние задания								
Эссе								
Устный опрос	1	1	1					
Другие формы (добавить)								
Другие формы (добавить)								
Вес результирующей оценки текущего контроля в итоговых оценках промежуточных контролей				0,6	1	0,6		
Вес итоговой оценки 1-го промежуточного контроля в результирующей оценке промежуточных контролей							0,3	
Вес итоговой оценки 2-го промежуточного контроля в результирующей оценке промежуточных контролей							0,3	
Вес итоговой оценки 3-го промежуточного контроля в							0,4	

результатирующей оценке промежуточных контролей т.д.								
Вес результирующей оценки промежуточных контролей в результатирующей оценке итогового контроля								0,6
<b>Зачет (оценка итогового контроля)</b>								0,4
	$\Sigma = 1$	$\Sigma = 1$	$\Sigma = 1$	$\Sigma = 1$	$\Sigma = 1$	$\Sigma = 1$	$\Sigma = 1$	$\Sigma = 1$

## **7. Content:**

### **7.1. Thematic plan and intensity of auditory studies (Modules, discipline sections and types of classes) according to the curriculum**

<b>Sections and topics of the discipline</b>	<b>Total academ ic hours</b>	<b>Lectur es, acade mic hours</b>	<b>Practica l lessons, academi c hours</b>	<b>Seminar s, academi c hours</b>	<b>Labora tory work, academ ic hours</b>	<b>Other activities (tests)</b>
<b>1</b>	<b>3=4+5+ 6+7+8</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
4 <sup>th</sup> Industrial revolution, technological transformations, and security in the 21 <sup>st</sup> century	2	2				
AI, Robotics, and future of warfare	6	4		4		
Armenia and technological transformations in the 21 <sup>st</sup> century	8	4		4		
Informational Society and Network Society: Modernizing Armenian identity?	8	4		4		
Security threats and challenges: Armenia's Strategic Choice	8	4		2		2
Armenia and network-centric warfare	4	2		2		
Armenia between conventional warfare and hybrid threats: The Case of Nagorno-Karabakh Conflict	8	4		4		
Armenia between conventional warfare and hybrid threats: The issue of International terrorism in the South Caucasus	4	2		2		
Cyber security challenges for	8			4		

Armenia: Armenian National Policy in cyber space		<b>4</b>				
Armenia between conventional warfare and hybrid threats: US-Iran confrontation and challenges for the region	<b>8</b>	<b>4</b>		<b>4</b>		
Technological developments and transformation of global and regional security environments: Building alternative future in Armenia	<b>8</b>	<b>4</b>		<b>4</b>		
<b>ИТОГО</b>	<b>72</b>	<b>36</b>		<b>34</b>		<b>2</b>

## **7.2. The main topics and details:**

### ***Lecture 1: 4<sup>th</sup> Industrial revolution, technological transformations, and security in the 21<sup>st</sup> century***

The lecture introduces the Technological Revolution of 70<sup>th</sup> of 20<sup>th</sup> century, discusses Bell's post-industrial society, and the basics of the 4<sup>th</sup> Industrial revolution. Finally, it addresses the impact of those innovations on the global security environment.

#### ***Readings***

##### ***Required:***

Klaus Schwab. 2017. The Fourth Industrial Revolution. Crown Publishing Group, USA.

##### ***Optional:***

Glenn Diesen. 2021. Great Power Politics in the Fourth Industrial Revolution: The Geoeconomics of Technological Sovereignty. Bloomsbury Academic.

### ***Lecture 2: AI, Robotics, and future of warfare***

The lecture addresses the rise of Artificial Intelligence and Robotics and discusses its impact on the current and future warfare. In this regard the lecture in comparison introduces the US, Russia's, and China's Strategies on the future of warfare, drawing potential scenarios for the future.

#### ***Readings***

##### ***Required:***

Winkler, John D., Timothy Marler, Marek N. Posard, Raphael S. Cohen, and Meagan L. Smith, Reflections on the Future of Warfare and Implications for Personnel Policies of the U.S. Department of Defense. Santa Monica, CA: RAND Corporation, 2019.  
<https://www.rand.org/pubs/perspectives/PE324.html>

Paul Maxwell, Artificial Intelligence is the Future of Warfare (Just not in the way you think), 04.20.20. Modern War Institute at West Point, <https://mwi.usma.edu/artificial-intelligence-future-warfare-just-not-way-think/>

##### ***Optional:***

M. L. Cummings, Artificial Intelligence and the Future of Warfare, International Security Department and US and the Americas Programme January 2017.  
<https://www.chathamhouse.org/sites/default/files/publications/research/2017-01-26-artificial-intelligence-future-warfare-cummings-final.pdf>

Coker, C., 2019. Artificial Intelligence and the Future of War. Scandinavian Journal of Military Studies, 2(1), pp.55–60. DOI: <http://doi.org/10.31374/sjms.26>

Rickli, Jean-Marc. 2017. "Artificial Intelligence and the Future of Warfare." In WEF Global Risks Report 2017, 49. [http://www3.weforum.org/docs/GRR17\\_Report\\_web.pdf](http://www3.weforum.org/docs/GRR17_Report_web.pdf)

### ***Lecture 3: Armenia and technological transformations in the 21<sup>st</sup> century***

The lecture introduces the level of technological development in Armenia. Additionally, it presents challenges and threats, which Armenia faces in the process of the development of the 4<sup>th</sup> industrial Revolution globally and in the South Caucasus. Finally, it discusses the opportunities that Armenia can accommodate by taking the path of the innovative development.

#### ***Readings***

##### ***Required:***

Tigran Sargsyan, The End of the State or A New Form of Societal Organization, Yerevan, 2008, [https://www.luys.am/attachments/articles/Tigran\\_Sargsyan-The\\_End\\_of\\_the\\_State-en.pdf](https://www.luys.am/attachments/articles/Tigran_Sargsyan-The_End_of_the_State-en.pdf)

Ruben Elamiryan, The Problem of Transformation of the National Interests in Context of Development of Network Society in the RA, "Public Administration" Scientific Journal, 2014, p.p. 157-166.

How to ensure rapid development in the Armenian IT sector? EU4Digital highlights women as the key to growth, EU for Digital, 14/08/20, <https://eufordigital.eu/how-to-ensure-rapid-development-in-the-it-sector-eu4digital-highlights-women-as-the-key-to-growth/>

*Optional:*

Ruben Elamiryan, Strategic elite as the key actor to provide Information sovereignty of the Republic of Armenia/ International Scientific Forum Proceedings: The Problems of National Security in Terms of Globalization and Integration Processes (Interdisciplinary Aspects). RAU Publishing House, Yerevan, 2017, p.p. 218 -231.

**Lecture 4: Informational Society and Network Society: Modernizing Armenian identity?**

The lecture introduces the process of societal changes, which took place with the Technological Revolution of the third quarter of 20<sup>th</sup> century. Particularly, in comparison it discusses Bell's post-industrial society and Castells' informational and network societies. Based on the above the lecture addresses the state of Armenian society and its readiness to accommodate innovations.

**Readings**

*Required:*

Ruben Elamiryan, Readiness for the Networked World Assessment: Armenia Information Technologies Group Center for International Development Harvard University, [https://cyber.harvard.edu/itg/libpubs/Armenia\\_eReadiness\\_Report.pdf](https://cyber.harvard.edu/itg/libpubs/Armenia_eReadiness_Report.pdf)

Ruben Elamiryan, Network society as the key factor for effective functioning of the Eurasian Union, ACM international conference proceedings series, ACM Press, 2016, p.p. 83-92.

*Optional:*

Cropper S. (1989) Post-Industrial Society. In: Jackson M.C., Keys P., Cropper S.A. (eds) Operational Research and the Social Sciences. Springer, Boston, MA. [https://doi.org/10.1007/978-1-4613-0789-1\\_105](https://doi.org/10.1007/978-1-4613-0789-1_105)

Manuel Castells, The Rise of the Network Society, 2nd Edition, 2009, Wiley-Blackwell.

**Lecture 5: Security threats and challenges: Armenia's Strategic Choice**

The lecture covers strategic perspectives and understanding in Armenia's political elites regarding the threats and challenges the country faces. At the same time, it discusses both strategies and policymaking to face and address those developments.

**Readings**

*Required:*

National Security Strategy of the Republic of Armenia, 2020, <https://drive.google.com/file/d/1J-IsxkqsWOJ8YhmKTnizWtu6-vKadGXe/view>

The Program of Modernization of Armenia's military forces: 2018-2024, <https://mil.am/files/LIBRARY/2018-2024.pdf>

Nation-Army, <https://www.mil.am/en/pages/21>

*Optional:*

National Security Strategy of the Republic of Armenia, 2007, <https://www.mfa.am/filemanager/Statics/Doctrineeng.pdf>

Military Doctrine of the Republic of Armenia, 2007, <https://mil.am/files/LIBRARY/Hayecakargayin/825.pdf>

Strategic Defense Review: 2011-2015, <https://www.mil.am/files/LIBRARY/HHPRV/833.pdf>



### **Lecture 7: Armenia and network-centric warfare**

The lecture introduces the notion of “network-centric warfare” and applies it to Armenia. Particularly, it addresses multiple threats and challenges Armenia faced, specifically, after the “Velvet Revolution” and discusses them as a networked (domestically and externally) attack against Armenia’s sovereignty and sovereign decision-making of its political elites.

#### **Readings**

##### *Required:*

Lilit Gevorgyan, Armenia: Hybrid Warfare, Reforms, Strategic Public Communication, February 2020, <https://www.civilnet.am/news/2020/02/10/Armenia-Hybrid-Warfare-Reforms-Strategic-Public-Communication/375953>

Ruben Elamiryan, Armenia in modern network warfare: Turbulence as a new reality, January 2019, [http://www.diplomat.am/publ/crizis\\_diplo/1/96-1-0-1932](http://www.diplomat.am/publ/crizis_diplo/1/96-1-0-1932)

##### *Optional:*

Hybrid Threats in the EaP Area: Building a Common Response, 2019, [https://eap-csf.eu/wp-content/uploads/Report\\_-\\_Hybrid-Threats\\_Body-Text\\_WG1\\_FIN.pdf](https://eap-csf.eu/wp-content/uploads/Report_-_Hybrid-Threats_Body-Text_WG1_FIN.pdf)

Tevan Poghosyan, Armenia in the state of hybrid warfare, December 2018 (in Armenian), <https://factor.am/109138.html>

### **Lecture 8: Armenia between conventional warfare and hybrid threats: The Case of Nagorno-Karabakh Conflict**

The lecture addresses the case of the Nagorno-Karabakh conflict starting from 1988 till the “Third Artsakh war” of the Autumn 2020. In this context it comprehensively presents the history and modern period of the conflict, discussing the conventional and hybrid components of the confrontation. Finally, the lecture discusses the of the “Third Artsakh war” as a combination of conventional and hybrid warfare.

#### **Readings**

##### *Required:*

Shavarsh Kocharyan, Why is the Nagorno-Karabakh Conflict is still not Resolved, Yerevan 2016, [https://www.mfa.am/filemanager/Statics/A\\_nkr\\_en.pdf](https://www.mfa.am/filemanager/Statics/A_nkr_en.pdf)

Michael A. Reynolds, Confidence and Catastrophe: Armenia and the Second Nagorno-Karabakh War, January 2021, <https://warontherocks.com/2021/01/confidence-and-catastrophe-armenia-and-the-second-nagorno-karabakh-war/>

Thomas de Waal, A Precarious Peace for Karabakh, November 2020, <https://carnegie.ru/commentary/83202>

##### *Optional:*

Alessandro Arduino, Nagorno-Karabakh conflict offers insight into the new art of war, October 2020, <https://www.scmp.com/week-asia/opinion/article/3104068/nagorno-karabakh-conflict-offers-insight-new-art-war>

Edward Nalbandian. "Nagorno-Karabakh: is a solution visible?", 2015, <https://www.mfa.am/filemanager/Statics/Էդվարդ%20Նալբանդյանի%20հոդվածը`%20«%20Politique%20Internationale%20»%20հանդեսում.pdf>

### **Lecture 10: Armenia between conventional warfare and hybrid threats: The issue of International terrorism in the South Caucasus**

The lecture addresses the issue of international terrorism in the context of Armenia’s national security. The use of Syrian terrorists in “April war” and “Third Artsakh war” clearly demonstrated

that Armenia is not on safe spot in terms of terrorist threats. Additionally, global uncertainty and turbulence demand being prepared for potential developments. In this regard the lecture covers Armenia's national security strategy, as well as its international cooperation to fight against international terrorism.

### **Readings**

#### **Required:**

Opening remarks of the Foreign Minister of Armenia Zohrab Mnatsakanyan and answers to the questions of journalists at the joint press conference of the Armenian and Russian Foreign Ministers, October 2020, [https://www.mfa.am/en/press-conference/2020/10/12/arm\\_ru\\_conf/10518](https://www.mfa.am/en/press-conference/2020/10/12/arm_ru_conf/10518)  
Branch, A. R. (2018). Armenia and the South Caucasus: A New Security Environment. *Connections: The Quarterly Journal*. 17(2), 47-60.

#### **Optional:**

Clarke, Colin P., *Jihadist Violence in the Caucasus: Russia Between Counterterrorism and Counterinsurgency*. Santa Monica, CA: RAND Corporation, 2017. <https://www.rand.org/pubs/testimonies/CT483.html>  
National Security Strategy of the Republic of Armenia, 2020, [https://mil.am/files/LIBRARY/pdf\\_Armenia%202020%20National%20Security%20Strategy.pdf](https://mil.am/files/LIBRARY/pdf_Armenia%202020%20National%20Security%20Strategy.pdf)

### **Lecture 11: Cyber security challenges for Armenia: Armenian National Policy in cyber space**

The lecture introduces the main threats and challenges Armenia faces in cyber space. At the same time, it presents the main approaches and mechanisms, which Armenia accommodates to provide its cyber security. Finally, the lecture discusses Armenia's international cooperation to provide its cyber security.

### **Readings**

#### **Required:**

Ruben Elamiryan, *Towards a Global Cybersecurity Architecture: Armenian National Policy in Cyberspace/ Chapter in Routledge Companion to Global Cyber-Security Strategy* (1st ed.). Routledge. <https://doi.org/10.4324/9780429399718>

#### **Optional:**

Project of the Armenia's cyber security strategy, 2017. (in Armenian) <https://www.e-draft.am/projects/581/about>  
Kotanjian, H. 2009. "Complementarity in developing the national cybersecurity strategy of the Republic of Armenia: relevance of a strategic forum on cooperation in cyberspace." <http://psaa.am/en/activities/publications/hayk-kotanjian/195-hayk-kotanjian-complementarity-in-developing-the-national-cybersecurity-strategy-of-the-republic-of-armenia-relevance-of-a-strategic-forum-on-cooperation-in-cyberspace-arm>

### **Lecture 12: Armenia between conventional warfare and hybrid threats: US-Iran confrontation and challenges for the region**

The lecture introduces the US-Iran relations and discusses them as a hybrid threat for Armenian national security. Particularly, it addresses the issue of a potential US-Iran war and its consequences (refugees, closed road, cut of economic cooperation, area of terrorist activities) for Armenia.

### **Readings**

#### **Required:**

Pashinian Says He Made 'Clear' To U.S. That Armenia Will Maintain Ties with Iran, November 2018, RFE/RL's Armenian Service, <https://www.rferl.org/a/pashinian-says-made-clear-to-us-bolton-armenia-will-maintain-ties-with-iran/29578365.html>

Zarifian, Julien. "Iran and Its Two Neighbours Armenia and Azerbaijan: Resuming Relationships under America's Suspicious Eyes." *Iran & the Caucasus*, vol. 13, no. 2, 2009, pp. 383–399. JSTOR, [www.jstor.org/stable/25703816](http://www.jstor.org/stable/25703816)

*Optional:*

Armenia Urges US, Iran to De-Escalate Tensions, *The Armenian Mirror-Spectator*, January 2020, <https://mirrorspectator.com/2020/01/09/armenia-urges-us-iran-to-de-escalate-tensions/>

Joshua Kucera, Caucasus braces for conflict in neighboring Iran Armenia and Azerbaijan have taken relatively pro-Tehran lines in the new crisis, while Georgia is sticking close by Washington, January 2020, <https://eurasianet.org/caucasus-braces-for-conflict-in-neighboring-iran>

Giorgi Lomsadze, US-Iran conflict catches Caucasus in the crossfire: Armenia, Azerbaijan, and Georgia have varying relationships with the two feuding countries, but all have something to lose if the conflict turns hot, January 2020, <https://eurasianet.org/us-iran-conflict-catches-caucasus-in-the-crossfire>

**Lecture 14: Technological developments and transformation of global and regional security environments: Building alternative future in Armenia**

The final lecture introduces some potential scenarios for Armenia, given the change of global order and technological reality.

**Readings**

The lecture does not include readings. It will be based on scenario-building simulation.

**Preliminary questions for the exam:**

1. Introduce the Technological Revolution of 70<sup>th</sup> of 20<sup>th</sup> century
2. Discuss Bell's post-industrial society, and the basics of the 4<sup>th</sup> Industrial revolution
3. Describe the impact of those innovations on the global security environment.
4. Present the rise of Artificial Intelligence and Robotics and discuss its impact on the current and future warfare
5. In comparison introduce the US, Russia's, and China's Strategies on the future of warfare, drawing potential scenarios for the future.
6. Introduce the level of technological development in Armenia. Additionally, present challenges and threats, which Armenia faces in the process of the development of the 4<sup>th</sup> industrial Revolution globally and in the South Caucasus.
7. Discuss the opportunities that Armenia can accommodate by taking the path of the innovative development.
8. Introduce the process of societal changes, which took place with the Technological Revolution of the third quarter of 20<sup>th</sup> century. Particularly, in comparison discuss Bell's post-industrial society and Castells' informational and network societies. Based on the above address the state of Armenian society and its readiness to accommodate innovations.
9. Present strategic perspectives and understanding in Armenia's political elites regarding the threats and challenges the country faces. At the same time, discuss both strategies and policymaking to face and address those developments.
10. Introduce the notion of "network-centric warfare" and apply it to Armenia. Particularly, address the threats and challenges Armenia faced, specifically, after the "Velvet Revolution" and discuss them as a networked (domestically and externally) attack against Armenia's sovereignty and sovereign decision-making of its political elites.
11. Address the case of the Nagorno-Karabakh conflict starting from 1988 till the "Third Artsakh war" of the Autumn 2020. In this context present the history and modern period of the conflict, discussing the conventional and hybrid components of the confrontation.

12. Discuss “Third Artsakh war” as a combination of conventional and hybrid warfare
13. Address the issue of international terrorism in the context of Armenia’s national security. Present Armenia’s national security strategy, as well as its international cooperation to fight against international terrorism.
14. Introduce the main threats and challenges Armenia faces in cyber space. At the same time, present the main approaches and mechanisms, which Armenia accommodates to provide its cyber security.
15. Present Armenia’s international cooperation to provide its cyber security
16. Introduce the US-Iran relations and discuss them as a hybrid threat for Armenian national security
17. Introduce some potential scenarios for Armenia, given the change of global order and technological reality