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## Master Syllabus

# A Conventional Introduction to Arms Control

Target Audience: Undergraduate Students

Provided by Peace Research Institute Frankfurt (PRIF)

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## Section I: Introduction

### Session 1: Why armament?

Buzan, B. (1987): Strategic Rivalry and Military Technology: The Arms Dynamics. In B. Buzan, *An Introduction to Strategic Studies. Military Technology & International Relations*. Houndmills: Macmillan, pp- 69-113.

### Session 2: Arms Control, Disarmament and Non-Proliferation. Basic Concepts

Goldblat, Jozef (2002): Analytical Survey (Basic Concepts & Historical Overview). In J. Goldblat, *Arms Control*, London: Sage, pp. 3.-32.

Müller, H. (2017): LU 01: Arms Control Basics. In G. Franceschini, M. Fey & N. Schörnig (Eds.), *EU Non-Proliferation and Disarmament eLearning Course*, <https://nonproliferation-elearning.eu/learningunits/arms-control-basics/>

### Session 3: The Crisis of Arms Control & New Perspectives

Wisotzki, S. & Kühn, U. (2021): "Introduction" in: *Zeitschrift für Friedens- und Konfliktforschung* Special Issue "Crisis of Arms Control", 2/2021, (i.E.). [doi.org/10.1007/s42597-022-00069-](https://doi.org/10.1007/s42597-022-00069-)

Lissner, R. (2021): *The Future of Strategic Arms Control*. Discussion Paper Series on Managing Global Disorder No. 4. [https://cdn.cfr.org/sites/default/files/report\\_pdf/lissner-dp\\_final.pdf](https://cdn.cfr.org/sites/default/files/report_pdf/lissner-dp_final.pdf)

## Section II: Weapons of Mass Destruction (WMD)

### Session 4: Nuclear weapons – a historical overview

Goldblat, Jozef (2002): Analytical Survey (Nuclear Arms Limitations). In J. Goldblat, *Arms Control*, London: Sage, pp. 69-100.

### **Session 5: Nuclear Weapon – The NPT vs. the TPNW**

Erästö, T. & Cronberg, T. (2018): Opposing Trends. The renewed salience of nuclear weapons and nuclear abolitionism. SIPRI Insights on Peace and Security No. 2018/5, [https://www.sipri.org/sites/default/files/2018-09/sipriinsight1805\\_nuclear\\_weapons\\_nuclear\\_abolitionism.pdf](https://www.sipri.org/sites/default/files/2018-09/sipriinsight1805_nuclear_weapons_nuclear_abolitionism.pdf)

Hilgert, L.-M., Kane, A. & Malygina, A. (2021): The TPNW and the NPT. Deep Cuts Issue Brief #15, [https://deepcuts.org/files/pdf/Deep\\_Cuts\\_Issue\\_Brief\\_15-TPNW\\_and\\_NPT.pdf](https://deepcuts.org/files/pdf/Deep_Cuts_Issue_Brief_15-TPNW_and_NPT.pdf)

### **Session 6: Chemical Weapons**

Zanders, J.-P-. (2017): LU 02: Chemical Weapons. In G. Franceschini, M. Fey & N. Schörnig (Eds.), EU Non-Proliferation and Disarmament eLearning Course, <https://nonproliferation-elearning.eu/learningunits/chemical-weapons/>

Jakob, U. (2019): Countering the Use of Chemical Weapons in Syria: Options for Supporting International Norms and Institutions. Non-Proliferation and Disarmament Papers No. 63. [https://www.nonproliferation.eu/wp-content/uploads/2019/06/EUNPDC\\_no-63\\_FINAL180719-1.pdf](https://www.nonproliferation.eu/wp-content/uploads/2019/06/EUNPDC_no-63_FINAL180719-1.pdf)

### **Session 7: Biological Weapons**

Lentzos, F. (2017): LU 03: Biological Weapons. In G. Franceschini, M. Fey & N. Schörnig (Eds.), EU Non-Proliferation and Disarmament eLearning Course, <https://nonproliferation-elearning.eu/learningunits/biological-weapons/>

Brockmann, K., Bauer, S. & Boulanin, V. (2019) Bio Plus X. Arms Control and the Convergence of Biology and Emerging Technology. SIPRI Report. Stockholm: SIPRI. [https://www.sipri.org/sites/default/files/2019-03/sipri2019\\_bioplusx\\_0.pdf](https://www.sipri.org/sites/default/files/2019-03/sipri2019_bioplusx_0.pdf)

## **Section III: Conventional Weapons**

### **Session 8: European Arms Control before and after the crisis**

Durkalec, J. & Kulesa, L. (2017): Arms Control in Europe: NATO/OSCE Issues. In G. Franceschini, M. Fey & N. Schörnig (Eds.), EU Non-Proliferation and Disarmament eLearning Course, <https://nonproliferation-elearning.eu/learningunits/arms-control-in-europe/>

Graef, A. (2022). Beyond Stability: The politics of conventional arms control in Europe. *Zeitschrift Für Friedens- Und Konfliktforschung*. <https://doi.org/10.1007/s42597-022-00070-y>

### **Session 9: Missiles and the MTCR**

Alberque, W. (2021): Revitalising arms control: the Missile Technology Control Regime (MTCR) and the Hague Code of Conduct against Ballistic Missile Proliferation (HCoC). IISS - The International Institute for Strategic Studies. [https://www.iiss.org/-/media/files/research-papers/iiss\\_revitalising-arms-control-the-mtcr-and-the-hcoc\\_mdi-02112021.pdf](https://www.iiss.org/-/media/files/research-papers/iiss_revitalising-arms-control-the-mtcr-and-the-hcoc_mdi-02112021.pdf)

Wilkening, D. (2019) 'Hypersonic Weapons and Strategic Stability', *Survival*, 61(5), pp. 129–148.

### **Session 10: Controlling Arms Exports**

Edoardo Varisco, A., Maletta, G. & Robin L. (2021): Taking Stock of the Arms Trade Treaty: Achievements, Challenges and Ways Forward. SIPRI Policy Paper, [https://www.sipri.org/sites/default/files/2021-12/2112\\_att\\_first\\_six.pdf](https://www.sipri.org/sites/default/files/2021-12/2112_att_first_six.pdf)

Brockmann, K. & Kelley, R.E. (2018): The Challenge of Emerging Technologies to Non-proliferation Efforts: Controlling Additive Manufacturing and Intangible Transfers of Technology. Stockholm: SIPRI, [https://www.sipri.org/sites/default/files/2018-04/sipri1804\\_3d\\_printing\\_brockmann.pdf](https://www.sipri.org/sites/default/files/2018-04/sipri1804_3d_printing_brockmann.pdf)

## **Section IV: Emerging Military Technologies**

### **Session 11: Rethinking Arms Control – the solution for emerging technologies?**

Altmann, J., Liebert W., Neuneck, G. & Scheffran, J. (1998): Preventive Arms Control as a Prerequisite for Conversion of Military-Related R&D. In: Reppy, J. (eds) *Conversion of Military R & D.*, London: Palgrave Macmillan, pp. 255-271.

Daase, C. (2013). Coercion and the informalization of arms control. In C. Daase & O. Meier (Eds.), *Arms Control in the 21st Century* (pp. 67-78). Oxon: Routledge.

### **Session 12: The debate about lethal autonomous weapons**

Gubrud M. & Altmann, J. (2013): Compliance Measures for an Autonomous Weapons Convention, ICRC Working Paper #2, International Committee for Robot Arms Control, [https://www.icrac.net/wp-content/uploads/2018/04/Gubrud-Altman\\_Compliance-Measures-AWC\\_ICRAC-WP2.pdf](https://www.icrac.net/wp-content/uploads/2018/04/Gubrud-Altman_Compliance-Measures-AWC_ICRAC-WP2.pdf)

Sauer, Frank (2021): Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible. In: *International Review of the red Cross* 102 (913), pp. 235–259.

### **Session 13: Arms Control in the Cyber-realm?**

Hansel, M., Mutschler, M. & Dickow, M. (2018): Taming cyber warfare: lessons from preventive arms control. *Journal of Cyber Policy* 3 (1), pp. 44-60.

Reinhold, T. & Reuter, C. (2019): Verification in Cyberspace. In C. Reuter: *Information Technology for Peace and Security. IT Applications and Infrastructures in Conflicts, Crisis, War, and Peace.* Wiesbaden: Springer, pp. 257-276.

### **Session 14: AI and Arms Control**

Lück, Nico (2019): Machine Learning-powered Artificial Intelligence in Arms Control, PRIF Report 8/2019, Frankfurt/M.

Schörnig, Niklas (2021): AI for Arms Control. How Artificial Intelligence Can Foster Verification and Support Arms Control. PRIF Spotlight 1/2022, Frankfurt, [https://www.hsfk.de/fileadmin/HSFK/hsfk\\_publicationen/Spotlight0122\\_01.pdf](https://www.hsfk.de/fileadmin/HSFK/hsfk_publicationen/Spotlight0122_01.pdf)

### **Session 15: Arms Control in Space**

Mutschler, Max (2013): Space Weapons and Arms Control. In m.Mutschler, Arms Control and Space, Houndmills: Pallgrave Macmillan, pp. 104-148.

Neuneck, G. (2022): A New Arms Race in Space? Options for Arms Control in Outer Space. In J.C. Peña (ed.) Security and Defence: Ethical and Legal Challenges in the Face of Current Conflicts. Wiesbaden: Springer, pp. 23-36.