Emerging Technologies and the Dynamics of International Security-IR, 814
(Elective Course)

Course Description: This course examines how emerging technologies are reshaping the landscape of international security. It explores the opportunities and challenges presented by advancements in technology, ranging from artificial intelligence (AI) and cybersecurity to biotechnology and space technologies. Students will analyze the implications of these technologies for state security, international conflict, diplomacy, and global governance.

Course Objectives: The course aims:

- To obtain an understanding of how emerging technologies influence and impact global security.
- To understand what the emergence of new technologies means for deterrence, for instance, in cyberspace and especially with regard to things like strategic stability.
- To understand the militarization of space, which the USA is compelling other Great Powers like Russia and China to engage in, what are the likely scenarios for the near future?
- To scrutinize the legal measures that can serve as a kind of safeguard, i.e., by passing new international laws to curtain and contain the impact of this technology, in terms of its potentially devastating impact and or disruptive influence? This would imply more power to supranational organizations (like the U.N.) or newer regulatory agencies.

Learning Outcomes: Upon successful completion of this course, the student will be able to:

- Gain awareness of emerging technologies and their fundamental implications for national and global peace, stability, and prosperity.
- Analyze the “civilian” side effects of full automation, robotics, and AI and how they may contribute to serious unemployment/under-employment, social, and human tensions and thus increase global insecurity.
- Recognizing AI’s immense potential as a game changer militarily, economically, and financially, yet realizing its latent characteristics of becoming a grave threat to humanity.

- Understand the need to curtail and perhaps outlaw destructive emerging technologies via supranational organizations like the UN or other law-making agencies.

Course Content

Week 1:	Emerging technologies and their influence and impact on global peace and security.
Week 2:	The “Civilian” Side Effects of Full Automation, Robotics, and AI: Socio-Economic Impacts and Global Security
Week 3:	The effects of Full Spectrum Dominance by the USA and what it means to other nations and global security.
Week 4:	Artificial Intelligence: Game-Changing Potential and Inherent Grave Threat to Humanity
Week 5:	Weather Warfare and Climate Change Technology: Understanding Their Huge Impact on Global Security Issues.
Week 6:	Impact of Advances in Emerging Kinetic Warfare Technologies on Global Stability and Security: Legitimacy Concerns and Sovereignty Issues.
Week 7:	The Emergence of Kinetic Warfare Technologies: Implications for Deterrence and Strategic Stability.
Week 8:	Artificial Intelligence (AI) and Machine Learning in Security
Week 9:	*Midterm Exam*
Week 10:	Cybersecurity Threats and Responses
Week 11:	Biotechnology and Biosecurity
Week 12:	Space Technologies and Strategic Implications
Week 13:	Quantum Computing and Cryptography
Week 14:	Ethics and Governance of Emerging Technologies
Week 15:	Case Studies: Examples from Global Regions
Week 16:	*Final Exams*

Reading Material

- Lawrence Knorr/Barbara Matthews - After the Pandemic: Visions of Life Post COVID-19 (Coronavirus) (2020).
- John P. Carlin/Garrett M. Graff - Dawn of the Code War: America's Battle Against Russia, China, and the Rising Global Cyber Threat (2018, Public Affairs).
- Joshua Gans—Economics in the Age of COVID-19 (Coronavirus) (2020, The MIT Press).
- Mark Honigsbaum—The Pandemic Century: One Hundred Years of Panic, Hysteria, and Hubris (2019, W. W. Norton Company).
- William F. Engdahl: Target China—How Washington and Wall Street Plan to Cage the Asian Tiger, 2014.
- William F. Engdahl: Full Spectrum Dominance—Totalitarian Democracy in the New World Order, 2009.
- Robert D. Blackwell / Jennifer M. Harris: War by Other Means—Geoeconomics and Statecraft, 2016.
- Himalayan Glaciers: Climate Change, Water Resources, and Water Security, National Academies Press, 2012.
- The Decision to Attack - Military and Intelligence Cyber Decision-Making, Aaron 12. Franklin Brantley, 2016.
- Walter Leal Filho, Dinesh Surroop (eds.): The Nexus Energy, Environment and Climate Change, Springer International Publishing (2018).
- Bjorn Lomborg - False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet, Basic Books (2020).
- Marc Morano: The Politically Incorrect Guide to Climate Change, Regnery Publishing (2018).
- Jerry E. Smith: Weather Warfare: The Military's Plan to Draft Mother Nature, 2006.
- Carnicom, Clifford Freeland, Elana—Under an Ionized Sky: From Chemtrails to Space Fence Lockdown, Feral House (2018).
- Gerry Vassilatos—Secrets of Cold War Technology: Project HAARP and Beyond, Adventures Unlimited Press (2000).
- Nick Begich, Jeane Manning - Angels Don't Play This Haarp: Advances in Tesla Technology, Earth Pulse Press (1995).

- HAARP: The Ultimate Weapon of the Conspiracy (Mind-Control Conspiracy), Jerry E. Smith.
- No Natural Weather: Introduction to Geoengineering 101, by Weather War 101 (Author), Sofia Smallstorm (Foreword), 2017.
- Elana Freeland - Chemtrails, HAARP, and the Full Spectrum Dominance of Planet Earth, Feral House (2014).
- Dice, Mark - Hollywood Propaganda: How TV, Movies, and Music Shape Our Culture, The Resistance Manifesto (2020).