

Syllabus

POL-430: Cyberwarfare

Written by:

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Course Description

Students in this course will identify and evaluate U.S. and International cyberwarfare and defense policy. Students will examine the five domains of warfare and evaluate the integration of cyberspace operations across the five domains. Students will develop and communicate military strategic objectives for operations within the cyberspace domain in support of given strategic military objectives. This course will integrate legal, ethical, and biblical frameworks with the analysis of cyberwarfare.

Credit Hours: 3

Prerequisite Courses: None

Course Outcomes

Upon successful completion of this course, you should be able to:

1. Analyze the United States' and internationally recognized definitions of warfare.
2. Analyze the role of cyberwarfare in the U.S. National Security strategy formation process.
3. Communicate the difference between cyber espionage and cyberwarfare.
4. Integrate legal, ethical, and biblical frameworks with the analysis of warfare in the cyberspace domain.
5. Demonstrate the ability to research and analyze U.S., regional, and international defense and cyberwarfare policy.
6. Evaluate cyber espionage and warfare policies of international and non-governmental organizations.
7. Evaluate cyberspace as a domain of warfare.
8. Differentiate between defensive and offensive cyber effects operations.

Course Textbook

Libicki, M. C. (2016). *Cyberspace in Peace and War (Transforming War)*. Annapolis, MD: Naval Institute Press.

Grading Scale

NOTE: In graduate-level courses, a grade of C- or below will require the course to be repeated.

Grade	Quality Points Per Credit	Percentage	Score
A	4.0	95% – 100%	950–1000
A-	3.7	92% – 94.9%	920–949
B+	3.3	89%–91.9%	890–919
B	3.0	85%–88.9%	850–889
B-	2.7	82%–84.9%	820–849
C+	2.3	79%–81.9%	790–819
C	2.0	75%–78.9%	750–789
C-	1.7	72%–74.9%	720–749
D+	1.3	69%–71.9%	690–719
D	1.0	65%–68.9%	650–689
F	0.0	0%–64.9%	0–649

Grading Policies

Your grading policy for your course is dependent on your school and program. Your grading policies can be found in the [IWU Catalog](#).

Letter Grade Equivalencies

NOTE: In graduate-level courses, a grade of C- or below will require the course to be repeated.

Grade	Description of Work
A	Clearly stands out as excellent performance. Has unusually sharp insights into material and initiates thoughtful questions. Sees many sides of an issue. Articulates well and writes logically and clearly. Integrates ideas previously learned from this and other disciplines. Anticipates next steps in progression of ideas. Example "A" work should be of such nature that it could be put on reserve for all cohort members to review and emulate. The "A" cohort member is, in fact, an example for others to follow.
B	Demonstrates a solid comprehension of the subject matter and always accomplishes all course requirements. Serves as an active participant and listener. Communicates orally and in writing at an acceptable level for the degree program. Work shows intuition and creativity. Example "B" work indicates good quality of performance and is given in recognition for solid work; a "B" should be considered a good grade and awarded to those who submit assignments of quality less than the exemplary work described above.
C	Quality and quantity of work in and out of class are average. Has marginal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at least minimally.
D	Quality and quantity of work are below average. Has minimal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at below-acceptable levels.
F	Quality and quantity of work are unacceptable and do not qualify the student to progress to a more advanced level of work.

Course Workshop Summary

Workshop	Discussion*	Dropbox*	Devotional*	End-of-Course Survey*	Total Points
Workshop One	2/60	2/90	1/5		155
Workshop Two	2/60	2/100	1/5		165
Workshop Three	1/30	3/150	1/5		185
Workshop Four	2/60	2/100	1/5		165
Workshop Five	2/60	2/100	1/5		165
Workshop Six	2/60	2/100	1/5	(10 extra credit)	165
Course Totals	11/330	13/640	6/30	(10 extra credit)	1000

* Number of Activities/Sum Point Totals

Course Assignments

Workshop One Outline

Title	Due Dates	Time	Points
1.1 Discussion: A Time for War and a Time for Peace	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	30 minutes	5
1.2 Discussion: What Is War?	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
1.3 Discussion: Governance of War	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
1.4 Assignment: Five Domains of Warfare	Due by the end of the workshop.	4 hours	50

1.5 Assignment: Why Countries Conduct War	Due by the end of the workshop.	4 hours	40
Totals		14:30 hours*	155

*These times are only estimates. Actual assignment completion times will vary.

Workshop Two Outline

Title	Due Dates	Time	Points
2.1 Discussion: Working as a Team	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	30 minutes	5
2.2 Assignment: U.S. Military Structure	Due by the end of the workshop.	4 hours	50
2.3 Discussion: Joint Doctrine and Operations	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
2.4 Discussion: Definitions of Cyberwarfare	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
2.5 Assignment: Cyberspace as a Domain of War	Due by the end of the workshop.	4 hours	50
Totals		14:30 hours*	165

*These times are only estimates. Actual assignment completion times will vary.

Workshop Three Outline

Title	Due Dates	Time	Points
3.1 Discussion: A Solid Foundation	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	30 minutes	5
3.2 Assignment: Current U.S. Cyberspace Operations Doctrine	Due by the end of the workshop.	4 hours	50
3.3 Assignment: International Cyberspace Military Doctrine	Due by the end of the workshop.	3 hours	50
3.4 Discussion: Evolution of Doctrine	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
3.5 Assignment: U.S.	Due by the end of the workshop.	4 hours	50

Cyberwarfare Strategy Development			
Totals		14:30 hours*	185

*These times are only estimates. Actual assignment completion times will vary.

Workshop Four Outline

Title	Due Dates	Time	Points
4.1 Discussion: Not Falling Prey	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	30 minutes	5
4.2 Discussion: Coercion and Asymmetry	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
4.3 Assignment: Attribution and Threshold	Due by the end of the workshop.	4 hours	50
4.4 Discussion: Espionage versus Warfare in the U.S. Context	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	4 hours	30
4.5 Assignment: Will to Retaliate	Due by the end of the workshop.	4 hours	50
Totals		15:30 hours*	165

*These times are only estimates. Actual assignment completion times will vary.

Workshop Five Outline

Title	Due Dates	Time	Points
5.1 Discussion: From Job to Profession	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	30 minutes	5
5.2 Discussion: Professionalizing the Domain and Force	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
5.3 Discussion: Culture Wars: Information Technology, Intelligence, or Operations?	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
5.4 Assignment: Developing Capabilities and Weapons	Due by the end of the workshop.	4 hours	50
5.5 Assignment: Opportunity to Minimize Loss of Life	Due by the end of the workshop.	4 hours	50

Totals	14:30 hours*	165
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*These times are only estimates. Actual assignment completion times will vary.

Workshop Six Outline

Title	Due Dates	Time	Points
6.1 Discussion: Seeking Wisdom	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	30 minutes	5
6.2 Discussion: Laws of War	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
6.3 Discussion: Lack of Geographic Boundaries	Your initial post is due by the end of the fourth day of the workshop. Respond to at least two of your classmates' postings, as well as all follow-up instructor questions directed to you, by the end of the workshop.	3 hours	30
6.4 Assignment: Escalation of War	Due by the end of the workshop.	4 hours	30
6.5 Assignment: Strategy and Stability Implications	Due by the end of the workshop.	5 hours	70
End-of-Course Survey	Complete by the end of the workshop.	30 minutes	10 Extra Credit
Totals		16 hours*	165

*These times are only estimates. Actual assignment completion times will vary.

Course Development Resources

Bijou, R. (2015). *Governments don't understand cyber warfare. We need hackers*[Video file]. Retrieved from https://www.youtube.com/watch?v=_nSHsb5xKPo

Burton, J. (2018). *Cyber deterrence: A comprehensive approach?* [PDF file]. Retrieved from https://ccdcoe.org/sites/default/files/multimedia/pdf/BURTON_Cyber_Deterrence_paper_April2018.pdf

Domas, C. (2013). *The 1s and 0s behind cyber warfare*[Video file]. Retrieved from <https://www.youtube.com/watch?v=cWpRxyqDgpM>

Executive Office of the President of the United States. (2006). *National security strategy of the United States of America* [PDF file]. Washington, DC: The White House. Retrieved from <http://nssarchive.us/NSSR/2006.pdf>

Executive Office of the President of the United States. (2017). *National security strategy of the United States of America* [PDF file]. Washington, DC: The White House. Retrieved from <http://nssarchive.us/wp-content/uploads/2017/12/2017.pdf>

Joint Chiefs of Staff. (2013). *Cyberspace operations*. Joint Publication 3-12(R) [PDF file]. Retrieved from http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_12.pdf

Joint Chiefs of Staff. (2017). *Doctrine for the Armed Forces of the United States*. Joint Publication 1 [PDF file]. Retrieved from http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp1_ch1.pdf

Joint Chiefs of Staff. (2016). *Joint personnel support*. Joint Publication 1-0 [PDF file]. Retrieved from http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp1_0.pdf

Joint Chiefs of Staff. (2017). *Joint operations*. Joint Publication 3-0 [PDF file]. Retrieved from http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_0_20170117.pdf

Kessler, O., & Werner, W. (2013). Expertise, uncertainty, and international law: A study of the Tallinn manual on cyberwarfare. *Leiden Journal of International Law*, 26(4), 793-810. doi:10.1017/S0922156513000411

Lee, D. (Ed.). (2015). *Law of armed conflict deskbook* (5th ed.) [PDF file]. Retrieved from http://www.loc.gov/tr/frd/Military_Law/pdf/LOAC-Deskbook-2015.pdf

Lewis, J. A. (2015). *The Tallinn papers: The role of offensive cyber operations in NATO's collective defence* [PDF file]. Retrieved from https://ccdcoe.org/sites/default/files/multimedia/pdf/TP_08_2015_0.pdf

Metcalf, K. N. (2018). *The Tallinn papers: A legal view on outer space and cyberspace: Similarities and differences* [PDF file]. Retrieved from https://ccdcoe.org/sites/default/files/multimedia/pdf/Tallinn%20Paper_10_2018.pdf

Ministry of Defence. (2014). *Joint doctrine publication 0-01: UK defence doctrine* (5th ed.). Ref: JDP 0-01 [PDF file]. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/389755/20141208-JDP_0_01_Ed_5_UK_Defence_Doctrine.pdf

Tudor, A., & Tudor, F. (2017). Multilateral diplomacy—A way to promote international security. *Contemporary Readings in Law and Social Justice*, 9(2), 350-353.

U.S. Department of Defense. (2015). *The Department of Defense cyber strategy* [PDF file]. Retrieved from https://www.defense.gov/Portals/1/features/2015/0415_cyber-strategy/Final_2015_DoD_CYBER_STRATEGY_for_web.pdf

Weaver, M. E. (2014). The relationship between diplomacy and military force: An example from the Cuban missile crisis. *Diplomatic History*, 38(1), 137-181.

Yong-Soo, E., & Aßmann, J. S. (2016). Cyberwar: Taking stock of security and warfare in the digital age. *International Studies Perspectives*, 17(3), 343-360. doi:10.1111/insp.12073

Yoo, C. (2015). Cyber Espionage or Cyberwar?: International Law, Domestic Law, and Self-Protective Measures. In J. D. Ohlin, K. Govern, & C. Finkelstein (Eds.), *Cyberwar: Law and Ethics for Virtual Conflicts*, U of Penn Law School, Public Law Research Paper No 15-3. Retrieved from <https://ssrn.com/abstract=2596634>

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Download and review the [POL-430 Credits Page \(PDF\)](#).

Alternative Assignment Policy

Students with a documented disability may request accommodations for an alternative assignment(s) for course activities (examples: video assignments, etc.). It is the student's responsibility to submit the form received from the Disability Services Office indicating his/her specific accommodation to the instructor prior to the start of each course.

Expectations, Policies, and Important Student Information

School/Division	Link
DeVoe School of Business	
Division of Liberal Arts	View School/Division Expectations, Policies, and Student Information
School of Services and Leadership	
School of Educational Leadership	View School/Division Expectations, Policies, and Student Information
Wesley Seminary @ IWU	View School/Division Expectations, Policies, and Student Information
Nursing – Undergraduate	View School/Division Expectations, Policies, and Student Information

School/Division

Link

Nursing – Graduate

[View School/Division Expectations, Policies, and Student Information](#)