McGill University
DEPARTMENT OF POLITICAL SCIENCE
Winter Term 2024

POLI 452
Conflict Simulation

INSTRUCTOR:	Prof. Rex Brynen (he/him) email: rex.brynen@mcgill.ca office: LEA 510
CLASS HOURS:	WF 0835-0955
	In addition to the course lectures, various other simulation activities will take place during the term. These will include opportunities to participate in (in-person or online) game demonstrations, attend professional conferences or online presentations, write short digital game reviews, or assist other game design groups through playtesting and feedback. Simulation activities will be scheduled at different times and days. You will need to take part in some of these to earn simulation activity credits, but which ones you attend will be entirely up to you.
OFFICE HOURS:	MW 1015-1130 (LEA510), or by appointment (in-person or via Zoom).
IMPORTANT:	If anything in the course is unclear, or health or other personal challenges are interfering with your studies, please reach out to let me know and I will do my best to make to make appropriate adjustments. Assistance is also available via the McGill Student Wellness Hub (https://www.mcgill.ca/wellness-hub/).

Course Description

This course will introduce students to conflict simulation design and explore the use of wargaming and other serious games for military planning, policy analysis, training, and education.

Prerequisite

Students are required to have taken at least one previous course in comparative politics or international relations.

Course Texts

The required texts for this course are:

Philip Sabin, *Simulating War: Studying Conflict Through Simulation Games* (Continuum Books, 2012). Available from the McGill bookstore or Amazon (Kindle).

UK Ministry of Defence, *Defence Wargaming Handbook* (Development, Concepts, and Doctrine Centre, 2017). Available at: https://www.gov.uk/government/publications/defence-wargaming-handbook

Course Requirements and Grading

Quiz 1 (January 22-23)	5%
Quiz 2 (February 12-13)	5%
Quiz 3 (March 18-19)	5%
Final exam (university-scheduled)	25%
Simulation activity credits	15%
Group conflict simulation design project	
• project update (March 1)	5%
• conflict simulation/serious game (due April 11)	30%
• game development diary (5-6,000 words, due April 11)	10%
• group participation bonus/penalty	(+/- 0-2%)

Quizzes: These will consist of a mix of multiple choice and short answer questions, written via myCourses. Each quiz will be available for 48 hours and you will have 3 hours to complete it (although it should take only an hour or so).

Final exam: "Take-home" exam (short and essay answers) via myCourses. You will have 72 hours to complete it, and it will be due on the day and time scheduled by the university.

Simulation activity credits: You will be able to earn up to 15% of your course grade by taking part in (in-person and online) gaming demonstrations, attending virtual lectures and conferences, downloading and playing certain digital games, and other activities. A full list of eligible activities will be posted to myCourses throughout the term with its credit value (15 simulation activity credits = the full 15% grade).

Conflict simulation design project. In a group of 4-5 students, you will design a serious game that examines:

- a historical or current conflict in a way that balances accuracy and playability, while offering insight into conflict dynamics and the choices faced by real-world actors; or
- a potential future conflict, in a way that offers insight into capabilities, strategies, and choices.

Students wishing to propose a design project should consult the instructor as soon as possible. Project proposals are due by **January 18** and will take the form of a 1-2-page written proposal or a 5-minute video pitch posted to myCourses. Not all proposals will be approved, but all will receive simulation activity credits. This will be further explained in class and on myCourses. If there are not enough student-initiated design projects, the instructor will assign topics.

A *project update* is due on **March 1**. This should take the form of a 10-minute video presentation, uploaded to myCourses, in which you discuss the progress of your simulation project. It must include a discussion of approach, key game mechanics and other design elements, and components. You will be graded on how well developed your

project is, as well as how well your approach and mechanics support your game objectives. Note that you are expected to have designed and playtested an initial prototype of your game by this date.

The *finished conflict simulation* is due in class on **April 12**. This should include:

- a physical copy of the playable serious game (or a virtual copy, if designed in Tabletop Simulator)
- a copy of the rules (also upload a copy of these to myCourses)

These be graded according to the following 30-point rubric:

- *game system and mechanics* (15 points). Are the game mechanics sound, or do they have serious flaws or weaknesses? Can they be exploited? Are they broken? Do they balance accuracy and playability in an appropriate way? Does the game system achieve the objectives of the project?
- *rules* (5 points). Are the rules clear, coherent, thorough, and easy to understand? Are there examples of play or illustrations to help a player learning the system? Are their loopholes, ambiguities, or omissions?
- *graphics* (5 points). Do the game components and graphics support or hamper play? Are they engaging and attractive?
- *overall quality* (5 points). What is the overall quality of the project? Does it all work, or are there serious flaws in any of the key elements above?
- Individual student grades may have a *group participation bonus/penalty* applied of between +2% and -2% based on peer review of each student's contribution as well as attendance at group meetings. Note that all students are expected to attend the Game Lab working sessions in class.

Your project must be accompanied by a *game development diar*y of up to 5,000 words (plus bibliography and appendix), uploaded to myCourses.

- The first half of this should be a research paper that provides an overview of your topic and an analysis of its key elements and dynamics.
  - Grading considerations: Does this show solid research into the conflict being simulated? Does the research identify key elements and dynamics in a way that informs the game design?
- The second half of this should be a development diary that explains the rationale behind the game design and provides a reflective and critical account of game development and revisions. An appendix must provide brief details of every playtest of the game.
  - Grading considerations: Does this offer a thoughtful, reflective account of the design process? Does it explain why particular approaches were adopted? Does it explain what changes were made and why? Is there evidence of substantial, iterative playtesting leading to substantial refinement?

Important Fine Print

<u>Group work can be challenging, and games take far longer to design, playtest, and revise than you think</u>. This is not something that can be left until late in the term! Good project management and teamwork skills are essential.

In the event of extraordinary circumstances beyond the University's control, the content, delivery, and/or evaluation scheme in this course is subject to change.

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

You may use generative AI to assist in your game design but be aware of its very substantial weaknesses.[1]

Cases of plagiarism will be dealt with severely. If you are unsure of what plagiarism is or how to identify your sources, ask your teaching assistant. McGILL UNIVERSITY VALUES ACADEMIC INTEGRITY. THEREFORE, ALL STUDENTS MUST UNDERSTAND THE MEANING AND CONSEQUENCES OF CHEATING, PLAGIARISM AND OTHER ACADEMIC OFFENCES UNDER THE CODE OF STUDENT CONDUCT AND DISCIPLINARY PROCEDURES (see www.mcgill.ca/integrity for more information).

McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous people whose footsteps have marked this territory on which peoples of the world now gather.

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[1] ChatGPT (and similar AI) is a Large Language Model based on scraping internet content and is optimized to "sound right" (to a non-expert) rather than "be right." Despite its confident tone, it generally produces material well below the expected quality for the Department of Political Science, is not up to date on recent political developments, and sometimes is simply wrong. Consequently, treat it a bit like you would the advice of a mansplaining buddy who is very sure of himself but who never took a class in political science or serious gaming (and instead learned everything he knows about the world by reading old Reddit threads).

Schedule

DATE	TOPIC
January 5	Introduction to POLI 452
January 10	History of Wargaming
January 12	Principles of Serious Game Design
January 17	Principles of Serious Game Design
January 19	Modelling Conflict I
January 24	Modelling Conflict I
January 26	Game Lab: Developing the Approach (with Ben Taylor)
January 29-30	**Quiz 1**
January 31	Modelling Conflict II
February 2	Modelling Conflict II
February 7	Components and Design
February 9	Game Lab: Building the System
February 12-13	**Quiz 2**
February 14	Design Caveats and Pitfalls
February 16	Game Lab: Expert Advice (with Ben Taylor)
February 17	Connections North professional (war)gaming conference (optional)
February 21	Game Lab: Prototyping
February 23	Seminar, Matrix, and Negotiation Games
February 28	Seminar, Matrix, and Negotiation Games
March 1	Ethics of Game Design
	Project update due
March 6	Reading Break
March 8	Reading Break
March 13	No class
March 15	Game Lab: Revising and Revision
March 18-19	**Quiz 3**
March 20	Playtesting and Rule -Writing
March 22	(Serious) Megagames and LARPs
March 27	Game Lab: Troubleshooting
March 29	No class (Good Friday)
April 3	Topics in Serious Gaming
April 5	Game Lab: OMG it's due in a week (panic, panic)
April 10	Critical Reflections
April 12	Game Demonstrations
	Game project due
KEY	
lecture	You are expected to attend the lectures, although they will also be recorded and the slides posted. Readings are listed below. This material will appear on the quizzes and exam.
game lab	These are working sessions, where you will develop your game project. You should all attend, ready to discuss, design, consult the instructor, and playtest. Failure to attend these sessions will adversely affect your group participation bonus/penalty. Note that most of your game development will still take place OUTSIDE of class time.
conference	Connections North is Canada's annual professional (war)gaming conference. You can earn simulation activity credits by attending (and extra credits by presenting a poster session on your game-in-progress). This is a unique opportunity to interact with professional game designers and users.
quizzes and due dates	Quizzes are conducted via myCourses.
no class	You do not have class on these dates.

Course Readings

A small number of additional readings or videos may be assigned. These will be posted to myCourses.

Introduction to POLI 452
- Read course outline.

History of wargaming
- Invicta, *"How Did War Become a Game?" YouTube*, 28 June 2019, at https://www.youtube.com/watch?v=-seIA9tukDs
- UK Ministry of Defence, *Defence Wargaming Handbook* (Development, Concepts, and Doctrine Centre, 2017), Chapter 1.
- Philip Sabin, *Simulating War: Studying Conflict Through Simulation Games* (Continuum Books, 2012), Chapter 1.
- Paul Strong, "Wargaming the Atlantic War: Captain Gilbert Roberts and the Wrens of the Western Approaches Tactical Unit," paper presented to the MORS wargaming special meeting, October 2017, accessed via PAXsims at https://paxsims.wordpress.com/2017/12/20/wargaming-the-atlantic-war-captain-gilbert-roberts-and-the-wrens-of-the-western-approaches-tactical-unit/

Principles of serious game design
- UK Ministry of Defence, *Defence Wargaming Handbook*, Chapters 2-4, Annex A
- ED McGrady and Peter Perla, "Why Wargaming Works," *Naval War College Review* 64, 3 (2011), at https://digital-commons.usnwc.edu/nwc-review/vol64/iss3/8/
- Philip Sabin, *Simulating War: Studying Conflict Through Simulation Games*, Chapters 2-4.

Modelling conflict I
- Philip Sabin, *Simulating War: Studying Conflict Through Simulation Games* (Continuum Books, 2012), chapters 5-8.
- Rex Brynen, "Game Presentation: We Are Coming, Nineveh," Nuts! Publishing, *YouTube*, March 2023, at https://www.youtube.com/watch?v=nSHaDBm-Rok
- *Battle for Moscow* (Victory Point Games, 2009): https://oberlabs.com/b4m/ (read the rules, play around with game in online solitaire mode)
- *1812: Invasion of* Canada (Academy Games, 2012): https://www.academygames.com/pages/1812 (glance at rules)

Modelling conflict II
- Rex Brynen, "Gaming the Nonkinetic," and Brian Train and Volko Ruhnke, "Chess, Go, and Vietnam: Gaming Modern Insurgency," in Pat Harrigan and Matthew Kirschenbaum, eds., *Zones of Control: Perspectives on Wargaming* (Cambridge MA: The MIT Press, 2016).
- UK Ministry of Defence, Influence Wargaming Handbook (Development, Concepts, and Doctrine Centre, 2023), at https://www.gov.uk/government/publications/influence-wargaming-handbook (skim Chapter 3-4 and Annex A).

Components and design
- No readings assigned.

Design caveats and pitfalls
- No readings assigned.

Seminar, matrix, and negotiation Games

- Rex Brynen and Ben Taylor, "Gaming and Pandemics: Agile Analysis in a Time of Crisis," Public Health Ontario, 312 May 2022, via YouTube, https://www.youtube.com/watch?v=z5DsNaK_Zsw
- Pete Pellegrino, "Introduction to Matrix Games," *YouTube*, https://www.youtube.com/watch?v=rlfgdB6_oe4&t=1s
- Rex Brynen, "Crisis in Galasi: Simulating the Urban Dimensions of Religious Conflict." In Mick Dumper, ed., *Contested Holy Cities: The Urban Dimensions of Religious Conflict* (London: Routledge, 2019), at https://paxsims.files.wordpress.com/2020/06/brynen-galasi.pdf
- Rex Brynen, Tom Fisher, and Tom Mouat, *Matrix Game Construction Kit User Guide* (The Game Crafter, 2016), via myCourses.
- Natasha Gill, *Inside the Box: Using Integrative Simulations to Teach Conflict, Negotiation, and Mediation*, (Zurich: Centre for Security Studies, ETH Zurich, 2015), at http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/pdfs/Inside_the_Box-Gill.pdf, read Chapter 1 and skim rest.

Ethics of game design

- Stephen Downes-Martin, "Your Boss, Players, and Sponsor: The Three Witches of War Gaming," *Naval War College Review*, 67, 1 (Winter 2014), at https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1245&context=nwc-review
- Ivanka Barzashka, " Do academic standards for research excellence apply to professional wargaming?," *PAXsims*, 25 June 2021, at https://paxsims.wordpress.com/2021/06/25/barzashka-do-academic-standards-for-research-excellence-apply-to-professional-wargaming/
- Becca Wasser, "I Run War Games. Too Often, I Am the Only Woman in the Room," *New York Times Magazine*, 26 September 2019, at https://www.nytimes.com/2019/09/26/magazine/woman-war-gaming.html
- Derby House Principles, *PAXsims*, at https://paxsims.wordpress.com/derby-house-principles/
- Kit Barry, "Diversity Card Deck," PAXsims, 10 August 2020, https://paxsims.wordpress.com/2020/08/10/diversity-card-deck/
- Rex Brynen, "Political Correctness and Professional Wargaming," *PAXsims*, 19 September 2021, at https://paxsims.wordpress.com/2021/09/19/political-correctness-and-professional-wargaming
- Rex Brynen, "Gaming the Pandemic: Do No Harm," *PAXsims*, 18 March 2020, at https://paxsims.wordpress.com/2020/03/18/gaming-the-pandemic-do-no-harm/

Playtesting and rule-Writing

- Readings TBA

(Serious) Megagames and LARPs

- Rex Brynen, "CNN Academy journalism simulation," PAXsims, 15 January 2023, at https://paxsims.wordpress.com/2023/01/15/cnn-academy-journalism-simulation/ (watch video too).
- Stuart Hall, "Megagames are everything about board games made bigger – and better," Dicebreaker, 22 March 2022, at https://www.dicebreaker.com/topics/megagames/opinion/megagames-like-board-games-bigger-better (Watch video too).
- Rex Brynen, *Atlantic Rim* (2020), skim:
    - game report at https://paxsims.wordpress.com/2020/02/23/terror-from-the-sea-an-atlantic-rim-megagame-report/
    - *Game Design Notes* (via myCourses)

Topics in serious gaming

- Readings TBA

Critical reflections

- Jacqueline Schneider, "What War Games Really Reveal," *Foreign Policy*, 26 December 2023, at https://www.foreignaffairs.com/united-states/what-war-games-really-reveal
- Damien O'Connell, "Progress and Perils: Educational Wargaming in the US Marine Corps," *The Maneuverist*, 22 December 2023, at https://www.themaneuverist.org/post/progress-and-perils-educational-wargaming-in-the-us-marine-corps-by-damien-o-connell
- Rex Brynen, "Wargaming doesn't work," *PAXsims*, 17 December 2023, at https://paxsims.wordpress.com/2023/12/17/wargaming-doesnt-work/

Additional Resources

You may find these works useful in your coursework or if you want to dig deeper into a topic, but they are not required.

Jeff Appleget, Robert Burks, and Fred Cameron, *The Craft of Wargaming: A Detailed Planning Guide for Defense Planners and Analysts* (Annapolis: Naval Institute Press, 2020). Useful self-directed learning on designing wargames for the national security community.

Matt Caffrey, *On Wargaming* (US Naval War College Press, 2019). A detailed history of wargaming. Available as a free e-book at https://digital-commons.usnwc.edu/newport-papers/43/

John Curry, Chris Engle, and Peter Perla, eds., *The Matrix Game Handbook* (History of Wargaming Project, 2018). Examination of various matrix game approaches and techniques.

James F. Dunnigan, *The Complete Wargames Handbook* (1997). A guidebook to the design of commercial wargames for the hobby market. Available at http://www.professionalwargaming.co.uk/Complete-Wargames-Handbook-Dunnigan.pdf

Geoffrey Engelstein and Isaac Shalev, *Building Blocks of Tabletop Game Design* (Boca Raton: CRC Press, 2020). An extremely useful "encyclopaedia" of game mechanics. Available as e-book via McGill library.

Centre interarmées de concepts, de doctrines et d'expérimentations (French Ministry of the Armed Forces), *Manuel du jeu de guerre* (CICDE 2023). Available at: https://www.defense.gouv.fr/cicde/fonction-wargaming-jeu-guerre

Graham Longley-Brown, *Successful Professional Wargames: A Practitioners Handbook* (History of Wargaming Project, 2019). Very useful discussion of wargaming techniques.

Peter Perla, *The Art of Wargaming* (Naval Institute Press, 1990). A modern classic on the design and use of wargames.

NATO Supreme Allied Commander Transformation, *NATO Wargaming Handbook* (NATO, 2023). Available at: https://paxsims.files.wordpress.com/2023/09/nato-wargaming-handbook-202309.pdf

US Naval War College, *War Gamers' Handbook: A Guide for Professional War Gamers* (Annapolis: US Naval War College, nd) Detailed overview of the steps involved in designing, organizing, and analyzing a large, professional wargame. Yes, the US NWC spells "war gamers" as two words.

Christopher Weuve et al, *Wargame Pathologies* (CNA, 2004), at https://www.cna.org/CNA_files/PDF/D0010866.A1.pdf

In addition, you will always find much of interest at:

PAXsims at http://www.paxsims.org

Board Game Geek (information on pretty much every commercial boardgame ever), at https://boardgamegeek.com

Connections UK website (with links to videos and presentations), https://www.professionalwargaming.co.uk

Connections US 2021 *YouTube* channel: https://www.youtube.com/channel/UCi-VDxtAFGeVVtvQb-DLA5w/playlists

Georgetown University Wargames Society *YouTube* channel: https://www.youtube.com/channel/UCw0nVuQu5KoHv0kFiC9yX4Q/videos

King's Wargaming Network *YouTube* channel: https://www.youtube.com/channel/UCgHWLM5I32fRKgoclCDaNhg

Table Top History (videos and other resources by Pete Pellegrino) at https://www.tabletophistory.net

Game-Crafting

Most game and component **printing** for your project can be done with a laser printer.
- Larger pieces can be "tiled" and assembled (using Adobe Acrobat or other software) or printed at most printers or office supply stores (such as Bureau en Gros) using a wide-format printer.
- Avery adhesive labels are easy to find and can be found in a broad range of sizes and shapes. There is also an excellent online sticker editor that makes this easy: https://www.avery.ca/en/design-and-print-online
- Lamination can be done at most office supply stores, or you can borrow a laminator from the instructor.

Game design **components** can often be found at Amazon, in Dollar stores, and elsewhere. More specialist pieces may be available from game supply stores. Here are some examples:
- https://www.thegamecrafter.com/parts (US-based, huge selection)
- https://meeplesource.com (US-based, huge selection)
- https://www.meeplemart.com (Canada-based, look under game accessories)
- https://www.customgamebits.com (Ottawa-based, custom laser-cut pieces)

It is also possible to have your game professional printed, although be aware this takes time, costs money, and often has very particular component submission requirements. I don't recommend it, unless you wish to produce copies of your revised game after the course is over. Here are some examples:
- https://qinprinting.ca/custom-board-game-components/
- https://www.thegamecrafter.com

Finally, it is possible to design, develop, and produce a **virtual game**, using Tabletop Simulator (via Steam): There are several tutorial videos available on YouTube on how to use it to design games. Be certain you are comfortable with how it works and online game creation before going this route. https://www.tabletopsimulator.com