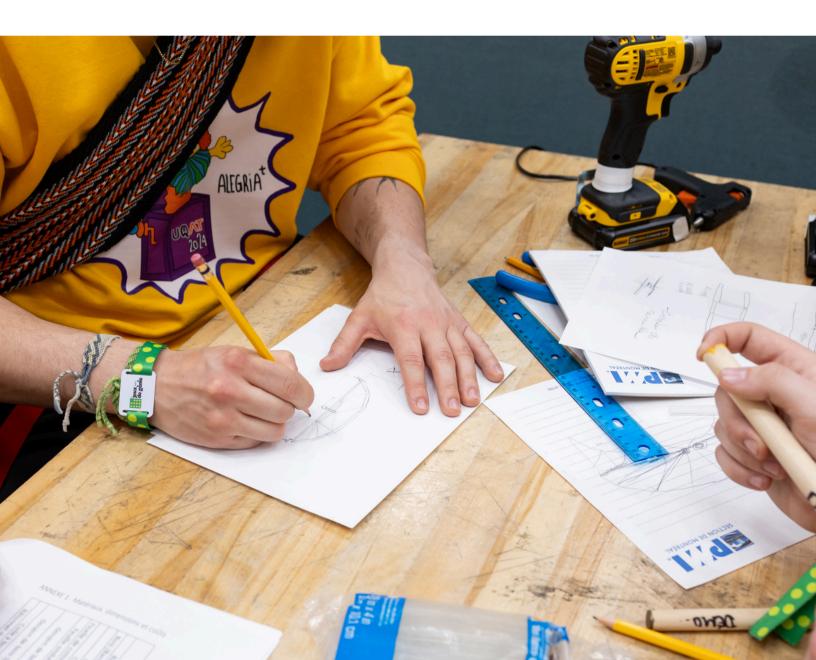


Competitions Booklet

United for the Games | 34th Engineering Games From January 3 to 7, 2025 | École de technologie supérieure



Kersion tracking of the booklet

Version	Date	Changes	Affected pages
V1.1	04/11/2024	Original	
V1.2	10/11/2024	Various corrections	p. 20, p.64
V2	30/12/2024	Addition of partners Modification to the materials to be provided/provided (Theoretical civil, mechanical, chemical, industrial, and electrical)	

Table of Contents

Page

Word from the Organizing Committee5
1 Academic competitions
1.1 Chemical Engineering8
1.1.1 Chemical Engineering – Theoretical Exam8
1.1.2 Chemical Engineering – Practical Exam9
1.2 Civil Engineering 10
1.2.1 Civil Engineering – Theoretical Exam [Presented by WSP]
1.2.2 Civil Engineering – Practical Exam [Presented by Eurovia]
1.3 Electrical Engineering
1.3.1 Electrical Engineering – Theoretical Exam
1.3.2 Electric Engineering – Practical Exam
1.4 Industrial Engineering
1.4.1 Industrial Engineering – Theoretical Exam [Presented by ABB]
1.4.2 Industrial Engineering – Practical Exam [Presented by L'Oréal]
1.5 Computer and Software Engineering [Presented by Evident]
1.6 Mechanical Engineering
1.6.1 Mechanical Engineering – Theoretical Exam [Presented by Kruger]
1.6.2 Mechanical Engineering – Practical Exam [Presented by Aero Montreal] 20
2 Major Competitions
2.1 Consulting Engineering [Presented by Alcoa]
2.2 The Capital [Presented by Colas Québec]
2.3 The Major
3 Cultural Competitions
3.1 Debates [Presented by GBI]
3.1.1 General Overview
3.1.2 Permitted Materials
3.1.3 Language
3.1.4 Organization
3.1.5 Rules and Elements of the Debate
3.1.6 Structure of the Debate and Roles

COMPETITION BOOKLET | PAGE 3

3.2 Trivia [Presented by SFL]3.2.1 General Overview	
3.2.2 Description of Roles	
3.2.3 Match Procedure	41
3.2.4 Acceptable Responses	45
3.2.5 Questionnaires	
3.2.6 Categories	
3.2.7 Competition Format	
3.3 Improv [Presented by Tetra Tech]	51
3.3.1 Duration	51
3.3.2 Team composition	51
3.3.3 Match Progression	52
3.3.4 Decorum	52
3.3.5 Penalties	54
3.3.6 Nature	55
3.3.7 Categories	55
3.3.8 Tournament	
4 Sports Competitions	59
4.1 Indoor Sport– Tchoukball	50
4.1 Objective of the Game	
	E0.
-	
4.1.2 Field Configuration	59
4.1.2Field Configuration4.1.3Game Play	59 60
4.1.2 Field Configuration4.1.3 Game Play4.1.4 Duration of the Game	59 60 60
 4.1.2 Field Configuration 4.1.3 Game Play 4.1.4 Duration of the Game 4.1.5 Points 	59 60 60 60
 4.1.2 Field Configuration 4.1.3 Game Play 4.1.4 Duration of the Game 4.1.5 Points 4.2 Outdoor Sport - Volleycross 	
 4.1.2 Field Configuration	
 4.1.2 Field Configuration	
 4.1.2 Field Configuration	59 60 60 61 61 61 61
 4.1.2 Field Configuration	59 60 61 61 61 61 62 62
 4.1.2 Field Configuration 4.1.3 Game Play 4.1.4 Duration of the Game 4.1.5 Points 4.2 Outdoor Sport - Volleycross 4.2.1 Objective of the Game 4.2.2 Field Configuration 4.2.3 Start of the Game 4.2.4 Service Rotation 4.2.5 Touches and Passes 	59 60 60 60 61 61 61 61 62 62 62 63
 4.1.2 Field Configuration 4.1.3 Game Play 4.1.4 Duration of the Game 4.1.5 Points 4.2 Outdoor Sport - Volleycross 4.2.1 Objective of the Game 4.2.2 Field Configuration 4.2.3 Start of the Game 4.2.4 Service Rotation 4.2.5 Touches and Passes 4.2.6 Attacks 	59 60 60 60 61 61 61 61 62 62 63 63
 4.1.2 Field Configuration	59 60 61 61 61 61 62 62 63 63 63
 4.1.2 Field Configuration 4.1.3 Game Play 4.1.4 Duration of the Game 4.1.5 Points 4.2 Outdoor Sport - Volleycross 4.2.1 Objective of the Game 4.2.2 Field Configuration 4.2.3 Start of the Game 4.2.4 Service Rotation 4.2.5 Touches and Passes 4.2.6 Attacks 4.2.7 Points 4.2.8 Additional Clarifications 	59 60 60 61 61 61 61 61 62 62 62 63 63 63 64 64
 4.1.2 Field Configuration	59 60 60 60 61 61 61 61 61 62 62 63 63 63 63 63 64 64 65

COMPETITION BOOKLET | PAGE 4

4	4.3.3	Duration of a Game	66
4	4.3.4	Roles and Rules for Police	66
4	4.3.5	Roles and Rules for Thieves	66
4	4.3.6	Victory Conditions	66
	4.3.7	Equipment	
4.4	4 Esp	ort – 4 in 1	68
	4.4.1	Competition Details	
4	4.4.2	Games	69
4	4.4.3	Equipment	70
4.5	5 Sur	prise Sport	71
5 (Organiz	ing Committee	72

Word from the Organizing Committee

Dear delegations,

It is with great pride that the École de technologie supérieure will host the 34th edition of Canada's largest engineering competition, the Quebec Engineering Games, from January 3 to 7, 2025.

Since last November, the organizing committee (OC) has been working hard to ensure a quality show worthy of the work carried out in recent years. With all the pitfalls, each edition raises the bar a little higher and we are ready to raise it even more.

As the races come to a close, the organizing committee for the 2025 Engineering Games is pleased to send you the competition booklet, which aims to present the various competitions in which you will participate during this 34th edition of the Games.

This booklet is primarily addressed to all members of each delegation. You will find details about the academic competitions, the engineering consulting competition, as well as the Major and Capital competitions. It also includes the rules for the cultural and sports competitions. Additionally, we are honored to introduce some of the partners supporting the various competitions, without whom the event would not be possible. The booklet will be updated once all partners are confirmed. A huge thank you to everyone for supporting us in this ambitious project.

We invite you to read this document carefully to prepare as well as possible for the event. Please contact us at **competitions@jeuxdegenie.qc.ca** if you need any additional information.

Happy preparations to everyone!



L'équipe du Comité organisateur 2025 JEUX DE GÉNIE

1 Academic competitions

The academic competitions are divided into two components: practical and theoretical. Each delegation allocates its delegates among the six pre-selected engineering disciplines, as well as in complementary competitions. Participants will need to collaborate as a team to address both the theoretical and practical sections of their assigned discipline. Since theoretical and practical exams take place simultaneously for all disciplines, a delegate can only participate in one exam. The tests are designed to evaluate the theoretical and technical knowledge of future engineers.

Upon arriving at the exam locations, participants will have a maximum of 10 minutes to familiarize themselves with the theoretical and practical parts. After this time, teams must split up, and no transitions will be allowed thereafter. Once the 10 minutes are up, it will not be permitted to participate in the practical section after completing the theoretical part, or vice versa.

A limit of seven (7) participants per academic discipline is pre-established. Additionally, a maximum of four (4) participants is allowed per academic exam. For example, it is possible to assign four participants to the theoretical section and three to the practical part. All distributions are acceptable as long as the maximum of seven (7) participants per discipline and four (4) per exam is respected.

In addition to the pre-selected disciplines, there are also multidisciplinary competitions, such as engineering consulting, the Major, and the Capital. During these competitions, the goal is to showcase the skills of the delegates and promote collaborative work across different disciplines.

It is important to note that all these activities occur simultaneously. Here are some basic rules to follow:

- A participant cannot take part in more than one academic competition.
- A participant cannot compete in both the engineering consulting competition and an academic competition.
- A participant cannot participate in more than one cultural competition.
- A participant in the entrepreneurship competition, engineering consulting, the Major, or the Capital cannot engage in a cultural activity.

This year, the organizing committee is striving to minimize its ecological footprint during the competition. To achieve this, digital notes and personal computers may now be used during certain academic competitions, in addition to handwritten notes.

Disqualification

The use of simulation or calculation software*, the Internet, or any other unauthorized resources will result in the disqualification of the team from the event. If in doubt, please ask the organizing committee whether a resource is permitted before using it.

*Unless stated otherwise in the description of a specific competition.

For any specific cases, please contact us at **competitions@jeuxdegenie.qc.ca**.

1.1 Chemical Engineering

General Information

Heads : Juliette Gagnon et Alexandre Leblond

Schedule: Saturday, January 4, from 8:00 AM to 11:30 AM

Participants: A maximum of seven (7) people per discipline.

1.1.1 Chemical Engineering – Theoretical Exam

The objective of this competition is to test the theoretical knowledge typically acquired during the four years of a bachelor's degree in chemical engineering. This is an open-book exam, so all paper documentation is allowed. Cell phones and personal laptops are prohibited for the entire duration of the exam.

Materials to be provided by the delegations

- Scratch paper, pencils, erasers, and non-programmable calculators
- Course notes and textbooks
- Digital notes on a USB drive
- One(1) computer per work station

Materials provided by the organizing committee

• Exam booklet

- Transfer phenomena (mass transfer, heat transfer)
- Chemical engineering thermodynamics (mass and energy balances)
- Fluid mechanics
- Unit operations (heat exchangers, pumps)
- Wastewater treatment
- Principles of corrosion
- Organic chemistry
- Process control
- Separation operations
- Biochemical processes (organism growth with different reactors)
- Piping and instrumentation diagram (P&IDs)

1.1.2 Chemical Engineering – Practical Exam

The objective of this competition is to test the technical and practical skills of students in a bachelor's program in chemical engineering. Process design concepts will be utilized. Delegations will work on computers. All documentation is allowed. Phones are prohibited for the entire duration of the exam. The delegation will be placed in a consulting engineering situation for a company seeking to find the best process for a new technology. Additional information will be provided on the day of the exam.

Materials to be provided by the delegations

- Scratch paper, pencils, erasers, and non-programmable calculators
- Course notes and textbooks

Materials provided by the organizing committee

- Computers equipped with Excel software
- Paper exam booklet necessary for the teams

Topics to study (non-exhaustive list and applicable only based on your choice of process)

- Economic analysis
- Unit operations
- Reaction system
- Transfer phenomena
- Thermodynamics
- General chemistry
- Design concepts

1.2 Civil Engineering

引 General Information

Head: Timbo Beniwal

Schedule: Saturday, January 4, form 8:00 AM to 11:30 AM

Participants: A maximum of seven (7) people per discipline.

1.2.1 Civil Engineering – Theoretical Exam [Presented by WSP]



The objective of this competition is to test the theoretical skills of the delegates acquired during their civil engineering studies. This exam is open book and collaborative, so any paper documentation is allowed. No communication outside of team members is permitted. Only non-programmable scientific calculators are allowed. Any other electronic devices, such as cell phones and laptops, are prohibited.

Materials to be provided by the delegations

- Handbook of Steel Construction, Canadian Institute of Steel Construction (CISC), Eleventh Edition, 2014. This handbook includes a reprint of the Canadian Standards Association, CAN/CSA-S16-09-2014, Design of Steel Structures. A CISC commentary on this standard, explanatory notes and design aids are also included in the handbook.
- Concrete Design Handbook 4th Ed. (2016), Canadian Portland Cement Association, CPCA. The handbook includes the CSA Standard A23.3-14.
- Scratch paper, pencils, erasers, and non-programmable calculators.
- Printed Notes and books
- Digital notes on a USB drive

Topics to study (non-exhaustive list)

- Highway Engineering and Traffic Analysis (Transport)
- Hydraulics (Open Channel)
- Construction Project Planning and Control
- Construction Management
- Steel Structure Design
- Reinforced Concrete Design
- Structural Analysis

Recommended Books

- Mannering, F. W. Kilareski, and S. Washburn. Principles of Highway Engineering and Traffic Analysis. 4th Edition, John Wiley & Sons, Inc., 2008 (ISBN 0-471-47256-5). Note: newer editions can be used as substitutes, but they do not provide example problems with SI units.
- Open Channel Hydraulics by A. Osman Akan (2006), First edition
- Mubarak, S. A. 2019. Construction Project Scheduling and Control, 4 ed, Wiley.
- Halpin, D. W., Bolivar, A. 2011. Construction Management, 4 ed, John Wiley & Sons
- Kulak. G. L. and Grondin, G. Y., Limit States Design in Structural Steel, Canadian Institute of Steel Construction (CISC), 10th Edition, 2016.
- Reinforced Concrete Design: A Practical Approach 2nd Ed. (2013) or 3rd Ed. (2017) by S.Brzev and J. Pao.
- Structural Analysis by Aslam Kassimali, 5th edition, SI Edition, Cengage Learning.

Materials provided by the organizing committee

- Paper exam booklet necessary for the teams
- One(1) computer per work station without internet access

1.2.2 Civil Engineering – Practical Exam [Presented by Eurovia]



The objective of this competition is to test the technical and practical skills of the participants acquired during their civil engineering studies. During the competition, delegations will be presented with a practical problem that they must solve. They will need to demonstrate their design process, understanding of the issue, and final product in front of a jury. The evaluation criteria and the details of the task will be provided at the beginning of the exam.

The use of tools or equipment not mentioned in the booklet will result in the disqualification of the team from the event. If in doubt, please ask the organizing committee whether a resource is permitted before using it.

Materials to be provided by the delegations

- Hand tools:
 - Small scissors
 - o Small pliers
 - o Tweezers
 - Rulers or measuring tapes
 - Manual cutting tools (e.g., craft knives, small saws)
 - Clamps if needed
- Safety Gear:
 - Safety goggles
 - o Gloves

- Design Material:
 - Sketchpads or notebooks
 - Pens, pencils, and erasers
- Adhesives:
 - Hot glue guns (including extra glue sticks)
- Power Tools:
 - Power drill (must be batteryoperated or compatible with provided electrical outlets)

1.3 Electrical Engineering

General Information

Heads : Eloise Beaulieu-Arsenault et Simon Milhomme

Schedule: Saturday, January 4, from 7:30 AM to 11:00 AM

Participants: A maximum of seven (7) people per discipline.

1.3.1 Electrical Engineering – Theoretical Exam

The objective of this competition is to test the theoretical knowledge typically acquired during the four years of a bachelor's degree in electrical engineering. This exam is open book, so any paper documentation is allowed.

Materials to be provided by the delegations

- Course notes, textbooks, and paper documentation
- Scratch paper, pencils, erasers, and non-programmable calculators
- Compass, ruler, and other measuring tools
- Digital notes on a USB drive
- One(1) computer per work station

Materials provided by the organizing committee

• Paper exam booklet necessary for the teams

- Electronics and Microelectronics
- Power
- Control Systems
- Electrotechnics
- Electromagnetism
- Semiconductors

1.3.2 Electric Engineering – Practical Exam

The goal of the practical exam is for participants to prototype an actual complex circuit. The challenge will require the analysis of datasheets and app notes to simulate a circuit and prove its design according to pre-established requirements. Cell phones and laptops are prohibited for the duration of the exam.

LTSpice

The exam will be carried out using LTSpice (a free simulation software: <u>LTspice</u>). It is strongly recommended that participants become familiar with the basic commands and features of the software before the exam.

Materials to be provided by the delegations

- Notes relevant to electronics circuit design
- Scratch paper
- Scientific calculator
- Pencils
- Eraser

Materials provided by the organizing committee

- Application notes and datasheets relevant to the circuits to be designed.
- Basic How-To's for LTSpice.
- Two (2) computers per delegation, without internet access.

- Comparator and OpAmp topologies
- Active and passive filter topologies
- Analog to digital conversion
- Optocouplers and isolation circuits
- Reading and analysis of datasheets

1.4 Industrial Engineering

Informations générales

Responsable : Léonore Jean-François et Antoine Renaud-Cordeau

Horaire : Samedi le 4 janvier 8h à 11h30

Participation : Maximum de sept (7) personnes pour la discipline

1.4.1 Industrial Engineering – Theoretical Exam [Presented by ABB]



The objective of this competition is to test the theoretical knowledge typically acquired during the four years of a bachelor's degree in industrial engineering. This is an open-book exam, so all paper documentation is allowed. Cell phones and personal laptops are prohibited for the entire duration of the exam.

Materials to be provided by the delegations

- Scratch paper, pencils, erasers, and non-programmable calculators
- Course notes and textbooks
- Digital notes on a USB drive
- One(1) computer per work station

Materials provided by the organizing committee

• Paper exam booklet necessary for the teams

- Layout development
- Linear programming
- Operations and inventory management
- Logistics and supply chains
- Process statistics
- Transportation algorithms

1.4.2 Industrial Engineering – Practical Exam [Presented by L'Oréal]



The objective of this competition is to test the technical and practical skills of the Bachelor of Industrial Engineering Student in modeling supply chains using the software Arena. Delegations will be given a specific problem with predefined data and will have to model a solution while respecting time constraints. The solution must be documented and presented in the form of a written report.

Materials to be provided by the delegations

- Course notes and textbooks
- Scratch paper, pencils, erasers, and non-programmable calculators

Materials provided by the organizing committee

- Computers with access to the Simulation Software Arena, and internet access
- Paper exam booklet necessary for the teams

🚺 Important Note

The Arena model must be fully prepared during the competition.

1.5 Computer and Software Engineering [Presented by Evident]



General Information Heads : Anne-Julie Côté et Ben Marcotte Schedule: Saturday, January 4, from 7:30 AM to 11:00 AM Participants: A maximum of seven (7) people per discipline.

The objective of this competition is to test the knowledge acquired during the Bachelor of Computer Engineering and software engineering. This exam is an open book, and as such all resources that are not artificial intelligence based are permitted. **This year, there is no distinction between a theoretical or a practical exam.**

Usage of Al 🚽

Using artificial intelligence (ChatGPT, Copilot or otherwise) is therefore strictly forbidden, and will result in a score of 0 for the entirety of the exam for the concerned delegations.

Materials to be provided by the delegations

- Laptops
- Pencils, erasers and other writing material

Materials provided by the organizing committee

- Paper exam booklet necessary for the teams
- Any other material required to answer exam questions

- Algorithms
- Web development
- Operating systems
- Telecommunications
- Principles of software engineering
- Low-level programming
- Digital logic
- Object-oriented and functional languages, as well as other languages, including Python and C#

1.6 Mechanical Engineering

General Information

Heads : Erman Akman et Makenzie Brissette

Schedule: Saturday, January 4, from 7:30 AM to 11:00 AM

Participants: A maximum of seven (7) people per discipline.

1.6.1 Mechanical Engineering – Theoretical Exam [Presented by Kruger]



The objective of this competition is to test the theoretical knowledge related to Mechanical Engineering. The exam will cover the topics typically covered during the entirety of a bachelor's degree in mechanical engineering. This exam is an open-book exam so all course notes, textbooks, etc. are allowed. However, cell phones and personal computers are prohibited.

Materials to be provided by the delegations

- Scratch paper, pencils, erasers, and non-programmable calculators
- Course notes and textbooks
- Digital notes on a USB drive

Materials provided by the organizing committee

- Paper exam booklet necessary for the teams
- One(1) computer per work station without internet access

- **Mechanics:** Statics, dynamics, and mechanics of materials
- Thermodynamics: Principles, laws, and applications
- Fluid Mechanics: Fluid properties, flow dynamics, and fluid systems
- Heat Transfer: Conduction, convection, and radiation
- Machine Design: Design principles, failure theories, and material selection

- Materials Science: Material properties, testing, and applications
- Control Systems: Control theory, feedback mechanisms, and system stability
- Mechanical Vibrations: Analysis of vibrating systems and damping
- Fatigue and Fracture Mechanics: Life prediction and failure analysis

1.6.2 Mechanical Engineering – Practical Exam [Presented by Aero Montreal]



Grappe aérospatiale du Québec Québec's Aerospace Cluster

The objective of this competition is to test the technical and practical skills of students in a bachelor's program in Mechanical Engineering. The competition will last 3 hours in total including design, test, and trial phases. The participants will have to design and build a solution to the presented problem using the materials given. The problem will be thoroughly explained, via a rulebook, on the day of the competition.

All of the required materials and equipment will be provided by the organizing committee (OC), however, participants are allowed to bring the items listed below if they think it will be beneficial for them. As this will be a practical exam, the competitors won't be allowed to use their cell phones or computers, and any communication with the outside is prohibited.

Materials to be provided by the delegations

- Hot glue gun (8mm or 12mm allowed only)
- Safety glasses (1 pair per team member)
- Tape measure
- Scissors
- Exacto (Utility) knife

Materials provided by the organizing committee

- Materials listed on the rulebook
- Equipment listed on the rulebook

Important Note

All of the equipment listed above and more will also be provided by the OC. Any part of the equipment provided by the participants or the OC, cannot be used as a material.

2 Major Competitions

2.1 Consulting Engineering [Presented by Alcoa]



General Information
 Head : Bryan Catudal
 Schedule: Saturday, January 4, from 8:00 AM to 11:30 AM, and from 1:30 PM to 5:00

Participants: A maximum of four (4) people per delegation

The objective of this competition is to test the knowledge typically acquired during the four years of the engineering bachelor's degree. This exam is an open book, so any paper documentation and internet use are allowed. Personal cell phones and laptops will also be permitted.

Scenario

PM

EcoAurifère has struck gold! New deposits have been discovered in Chibougamau, and your company has been hired as consultants on the development of a sustainable refinery and resources for the workers who will be involved.

The themes of the challenge will be greenhouse gas emissions management, carbon capture, and the employment of local Indigenous peoples. The industry in question is gold refining. Delegations are strongly encouraged to prepare articles and websites with information related to the theme of the challenge, as well as a presentation template.

The consulting world requires a lot of communication with suppliers, other consultants, and clients. Having a good network of contacts is key. In this sense, all modes of communication will be allowed during the challenge. Delegations are encouraged to develop connections with suppliers who could offer them prices or technical information related to the theme.

Materials to be provided by the delegations

- Scratch paper, pencils, erasers, and calculators
- Computer

Materials provided by the organizing committee

• Paper exam booklet necessary for the teams

- Problem-solving and analytical thinking
- Project management
- Innovation and sustainability
- Efficiency
- Communication and presentation
- Teamwork and collaboration
- Customer-oriented thinking

2.2 The Capital [Presented by Colas Québec]





Head: Vincent Doyle

Schedule: Saturday, January 4, from 12:30 PM to 6:30 PM

Participants: A maximum of five (5) people may participate, and the team should ideally consist of members from the following disciplines:

- Civil Engineering
- Aeronautical Engineering
- Mechanical Engineering
- Civil Engineering
- Construction Engineering

The Capitale is a recent competition that made its debut at the Engineering Games in 2023. This third edition will test participants' knowledge in civil and mechanical engineering, as well as their ability to apply that knowledge in developing a solution to a technical problem. The design, implementation, and quality of the solution will be evaluated.

Scenario

The team will have 6 hours to design, fabricate, and implement their solution to a civil and mechanical engineering problem. The solution will then be tested and evaluated based on a series of theoretical and practical criteria.

Materials to be provided by the delegations

- Cordless or corded drill
- Wood drill bit set
- Screwdriver bit set
- Hammer
- Multi-bit screwdriver
- Handsaw
- Utility knife with breakable blade
- Hot glue gun
- Hot glue sticks
- Safety glasses (1 pair per team member)
- Work gloves
- Safety boots
- Paper, pencils, and any materials necessary for drawing a solution concept

Materials provided by the organizing committee

- All materials necessary for implementing the solution
- Any tools needed other than those listed above
- Workspaces required for the competition

2.3 The Major

General Information

Head : Marc-André Baril

Schedule: Saturday, January 4, from 12:30 PM to 6:30 PM

Participants: A maximum of six (6) people may participate, and the team should ideally consist of members from the following disciplines:

- Mechanical Engineering
- Industrial Engineering
- Computer and Software Engineering
- Electrical Engineering

The Major is a rapid robotics competition aimed at testing knowledge acquired in various engineering disciplines, including mechanical, electronic, and embedded computing. During this challenge, the team's ability to optimize, demonstrate ingenuity, work collaboratively to solve complex problems, and present proposed solutions will be evaluated.

Context

The startup Innov Pro Turbo Full Max Plus (IPTFM+) specializes in automated storage solutions. From Ottawa to Moncton and from Rouyn-Noranda to Sherbrooke, this Quebecbased company stands out for its agility and innovative approach to modernizing warehouses of all kinds. Although the company has very few resources, it has gained recognition for its realistic models and prototypes.

Recently, IPTFM+ was offered a very generous contract. This is the largest mandate the company has undertaken in its short existence. To find inspiration, they turn towards the best engineering students in their region, namely those participating in the Engineering Games, as they represent a skilled and cost-effective workforce. The call for proposals takes the form of a competition where 12 groups of engineering students from various specializations compete to win the contract and serve as prototyping subcontractors. Knowing that IPTFM+ wants to complete its contract as quickly as possible, it has been determined that a period of four (4) hours is sufficient to create a prototype to compete against the other teams.

Materials to be provided by the delegations

- Note-taking materials (paper, pencils, etc.)
- Soldering iron with solder wire
- Hot glue gun and glue sticks
- Laptop with the following software:
 - PowerPoint or any other presentation software
 - o Arduino IDE
 - o Internet access
- Tools deemed necessary:
 - Sturdy and/or precision screwdrivers
 - Pliers of all kinds
 - Knife, X-Acto knife, scissors, etc.
 - Drill, screwdriver, etc.
 - o Etc.
- Safety glasses (one per person)
- Arduino code templates
- Smartphone compatible with RemoteXY (note: check compatibility with iPhones)
- Any other unlisted materials deemed necessary (must be approved by the director)

Materials provided by the organizing committee

- All consumable materials necessary for the teams for the competition
- A separate workspace for each team

Preparation for Programming

- Arduino (C++) via Arduino IDE or VS Code only
- Control interface to be used: RemoteXY
- Microcontroller to be used: ESPXXX (details will be provided at the beginning of the competition)
- The code must be validated and compiled just before the trial so that judges can ensure that the libraries used are standard
- Teams are encouraged to arrive prepared with the Arduino IDE pre-installed on their computers before the competition, along with the RemoteXY library and the connection procedure for ESP-type microcontrollers

Prohibited Materials

- Programming languages other than those compilable by the Arduino IDE
- Custom or pre-written Arduino libraries (only generic and publicly available libraries will be accepted)
- Consumable materials not provided by the organizing committee

3 Cultural Competitions

3.1 Debates [Presented by GBI]

gbi

🕗 General Information

Head: Justine Major

Qualifiers: Saturday, January 4, from 1:30 PM to 5:00 PM

Finals: Monday, January 6, from 8:00 AM to 10:00 AM

Participants: A maximum of two (2) people per delegation

Information Period: An information session will be offered to delegations prior to the competition. No explanations of the rules will be provided on the day of the competition. For any questions before the event, please contact the director directly, Justine Major (justine.major.1@ulaval.ca).

3.1.1 General Overview

Debates come in many forms. Some formats are strict and fussy, others are more open and accessible to the public. In an engineering context where most debates take place in an informal and open manner, some flexibility is brought to the structure of the debate competition. The debates here consist of the application of analytical, popularization and argumentation techniques in a context that is understandable to any individual from the engineering community and comes from a very quick thinking and critical perspective. Since the goal is to evaluate the ability to reason quickly and to demonstrate an outstanding sense of wit, the participants have only a very short preparation time between learning about the topic and the actual debate. Participants will be evaluated on the relevance of their arguments, the clarity of their ideas, their wit, their neat and professional presentation, ingenuity, originality, the structure of their arguments and their eloquence. The debate will

be between two teams, the proposal and the opposition. This document will therefore cover the logistics of the competition, the content - such as process, procedural points, decorum and evaluation - and the place of debates within the Engineering Games.

3.1.2 Permitted Materials

Support materials such as paper, pencils, and stopwatches are permitted at the discretion of the chairperson and judges. The use of materials that are not available to all debaters is prohibited and may result in a penalty up to and including disqualification.

3.1.3 Language

Resolutions will be presented in Canada's two official languages: English and French. Each participant may choose to speak in the language of their choice but must remain in that language throughout the debate. It is the responsibility of the participants to understand both languages. The organizing committee will ensure that the judges and the chairperson are able to understand both languages. In addition, each team will have the right to request a translation from the chair 1) at the end of the redefinition of the motion, and 2) when asked a question. No other translation will be done by the chair. The time needed for translation will not be taken into account by the timekeeper. This means that the timer will be paused during this period.

3.1.4 Organization

Competition Director

The Competition Director is responsible for the overall organization of the debate competition. The director appoints the chairpersons, judges and timekeepers. They write all the debate proposals with the chairpersons and judges and decide on the format and schedule of the tournament. All final decisions regarding the competition itself are made by the director. It is important that the director has credible experience in debates. The Competition Director may also hold the role of Chairperson.

Chairperson

The Chairperson is the person responsible for the interpretation and application of the debate procedures. They must be an impartial arbiter and ensure that the judges have a clear understanding of the rules of debate. The Chairperson is responsible for maintaining decorum and the rules of debate. They grant speaking rights and enforce time constraints.

In addition, they are responsible for ruling on procedural points requested by the debaters. It is important to note that the chair never brings a point of order on their own initiative. Therefore, procedural points not raised by the debaters will not be included in the judges' evaluation of the debate. Any decision made by the chair is final and cannot be appealed.

Judges

An odd number of judges is required to assess the argument, communication skills and team spirit of the competitors. Judges are required to have general knowledge at the level of the average engineering student, but are not required to have technical knowledge related to the debate topics. It is preferable, however, that judges have some prior experience in debate, since it will be their responsibility to decide which team wins. The judges will be trained by the Competition Director. The credibility of the competition depends on the quality of their judging. The judges will follow the scoring rubric provided below.

Timekeeper

The timekeeper is responsible for ensuring that the competitors respect the time allotted to them. The timekeeper will advise the debaters of their remaining time by hand signals and will advise the chair of the remaining time. It is important to note that under no circumstances will the timekeeper interfere with the debate. It is the responsibility of the Chair to ensure that the time indicated by the timekeeper is respected

When 30 seconds	nen 30 seconds Raise an open hand to signal the beginning of the question	
have elapsed	period	
When 1 minute has	1 minute has Raise the index finger to indicate the time remaining	
elapsed		
When there are 30	Raise a closed fist to signify the end of the question period	
seconds remaining.	conds remaining.	
When there are 15	n there are 15 Place your arms at a 90-degree angle and gradually lower the	
seconds remaining.	vertical arm like the hand of a clock.	

Table 3.1 Hand Signals

It is important to note that debaters may ask for an extra 15 second grace period to finish their speech by knocking on the table.

3.1.5 Rules and Elements of the Debate

3.1.5.1 Elements of the Debate

- One team will represent the proposition, the other will represent the opposition. These positions are drawn at random before the motion is revealed, so that the topic does not influence the teams' positions. During the final, the team that wins the coin toss will have the option to choose their position or the motion between two options. The position is always chosen first.
- An argument must be stated by the first speaker of each team during their opening speech. All elements present in the argument plan must be brought forward. It is not permitted to add elements or arguments not presented in the initial plan following the opening speech, except for rebuttals and direct responses to the opposing team.
- All of a team's arguments must be made in their first two speeches. Parties may not introduce a new argument in their closing remarks. Opening a new argument that the opposing party will never have a chance to respond to is a serious breach of the spirit of debate. Teams are, on the other hand, free to bring in new examples and illustrations or to refute and reconstruct the arguments brought in.
- Questions may not be asked in the first and last 30 seconds of a speech and may not take longer than 15 seconds, otherwise the Chairperson will cut the speaker off, and the question will be ignored. Ideally, each team should ask a minimum of one question to the opposing team during a debate.
- Conclusions are fully protected from questions, and time stops during the questions, but resumes as soon as the debater begins to respond.

3.1.5.2 Decorum

- Speakers shall always address the chairperson.
- Debaters should show courtesy and respect to the judges and chairperson as well as to their opponents. It is not discourteous for a speaker to describe the confusion, error, sloppiness, inadequacy or poor judgment of the opposing team, as long as such remarks do not involve profanity, swearing, abusive or gratuitous characterizations, expressions of a discriminatory nature, or an attack on a person's integrity or appearance.

- Team members who wish to communicate with each other should preferably do so in writing. They may, however, occasionally exchange a few whispers if these are not intended to disrupt the current speech.
- Brief interjections are permitted if used sparingly. These should be intended to add life to the debate, without being disrespectful to the opponent.
- Participants can and should ask questions of the opposing speaker. In order to show their desire to ask a question, the participant must stand up and wait for the speaker to grant them the right to ask their question with a hand gesture. If the speaker who has the right to speak does not want to take the question, they must indicate this with a hand signal or a verbal response to that effect. It should be noted that on the third attempt at a question, the speaker is obliged to accept the question. The Chair will ensure that this rule is respected. Furthermore, the time taken for the question to be asked is not considered by the timekeeper. However, the time taken by the speaker to answer the question is considered by the timekeeper.
- Participants may not applaud during a debate. They may, however, show their contentment, support or joy at the expression of ideas by clapping their desks, as is the custom in parliamentary chambers, or by expressing interjections. The audience is invited to applaud silently by raising their hands and shaking them.
- The two teams are invited to shake hands before and after the debate.
- A team that clearly attempts to distract the opposing speaker will be subject to severe sanctions on the evaluation grid.

3.1.5.3 Points of Order

To indicate a procedural error, a member of the opposing team must stand up, say "point of order" in a loud voice, wait for the chairperson to recognize them, and then clearly indicate the nature of the error to the chairperson. Acceptance or rejection of the point of order is the sole responsibility of the chairperson and their decision is final. Please note that time is stopped during a point of order and will resume when the Chair restores the right to speak.

The following is a list of admitted procedure items:

Truism case

This procedural point is undoubtedly the one that can overturn a debate. A case of truism occurs when the proposition is redefined in such a way that a debate cannot take place because it states a fact or a tautology. To raise this procedural point, the team that wants to

make it must wait until the speaker who committed the truism has finished speaking and then reports it to the chair. If accepted, the case of truism will give the opposing team the power to redefine the proposal and thus give the opportunity to totally invalidate the speech already made. If it is rejected, the debate will continue with the redefinition made.

Specific knowledge (in redefinition)

In order to ensure a quality debate and to give all debaters a chance, the debate must be on a topic that is accessible to the average engineering student. Therefore, if any aspect of the redefinition involves knowledge that the average engineering student does not possess, there is a specific knowledge case. To raise this procedural point, the team that wants to make it must wait until the end of the speech of the speaker who committed the specific knowledge and then report it to the chair. If accepted, it will empower the opposing team to redefine the terms of the specific knowledge and thus give the opportunity to invalidate that portion of the redefinition. If it is rejected, the debate will continue with the redefinition made.

Specific Knowledge (in the argument)

If an aspect of an argument calls for knowledge that an average engineering student does not possess, there is a case of specific knowledge. To raise this procedural point, the team must report it immediately to the chair, who will stop the debate. If the point is accepted, the chair will ask the offending speaker to withdraw or modify the argument and ask the judges to disregard it. If the point is not accepted, the debate will continue, considering the argument made.

Misquote

If a debater is misquoted by another speaker, they may notify the Chair immediately. If the point is accepted, the Chair will ask the offending speaker to withdraw or amend the quote and ask the judges to disregard the original quote. If the point is not accepted, the debate will continue with the citation as it stands.

New argument in the conclusion

Since the spirit of the debate involves an exchange between the two teams, it is strictly forbidden to make a new argument on an idea not covered during the debate in the closing speech. To raise this procedural point, the opposing team must immediately report it to the chair, who will stop the debate. If the point is accepted, the chair will ask the offending speaker to withdraw the argument and ask the judges to disregard it. If the point is not accepted, the debate will continue, considering the argument made. The argument will not be counted, but if the point is not raised, there will be no penalty in points.

Introduction of parts of a plan by the second speaker

The responsibility for setting up an argument plan lies with the first speaker. Thus, if a second speaker introduces a topic of argument that has not been previously introduced by the first speaker, it is a mistake. To raise this point of order, the opposing team must immediately report it to the Chair who will stop the debate. If the point is accepted, the chair will ask the speaker to withdraw the argument concerned and will ask the judges to disregard it. If it is rejected, the debate will continue with the argument made.

Unprofessional or offensive behavior

If a speaker demonstrates unprofessional behavior by being vulgar, inappropriate or simply lacking in class, there is a breach of decorum. In this situation, the Chair will ask the offending speaker to correct the situation, as such behavior may result in the team being disqualified if the person refuses to comply.

3.1.5.4 Resolutions

The competition director will decide the nature of the resolutions. They will touch on points which the average engineering student should be able to defend an opinion without any preparation. Resolutions will not include truisms (self-evident truths) and will avoid the use of words of absolute nature such as "all", "everyone" and "always". (Example: "Let it be resolved that all engineers find mathematics easy" is not a good resolution since there are always exceptions.) Once the two teams are aware of the resolution, they will have 5 minutes to prepare for the debate while separated from the opposing team. The nature of the proposals can be very serious or very funny. The originality of the arguments will also be considered in the quality of the speeches. All resolutions and their translation will be validated by the competition director and the chairpersons before the competition.

3.1.6 Structure of the Debate and Roles

3.1.6.1 Conduct of the Debate

Table 3.2 Debate Steps and Their Timings

	Time	
Preparation		
Drawing of positions	30 secondes	
Subject reveal	30 secondes	
Preparation of the argument	5 minutes	
Argumentation		
Proposition #1	2 minutes	
Opposition #1	2 minutes	
Proposition #2 :	2 minutes	
Opposition #2	2 minutes	
Conclusion		
Opposition #1	1 minute	
Proposition #1	1 minute	
Judgement		
Individual decision making by each judge	5 minutes	
** Note that if time permits, feedback will be provided after the deliberation.		
	Total: 21 minutes	

3.1.6.2 Role of the proposition

The proposal should redefine the motion, i.e., reduce the resolution to focus the debate on a single major issue. It is important for the proposal to avoid turning resolutions into truisms. The proposal should also avoid debates on topics that require specific knowledge. Similarly, special attention must be paid to the translation of motions in order to preserve the meaning of the motion in both languages.

Benefits

The proposition can redefine the resolution as they see fit, without drastically changing the meaning of the terms (e.g., a table cannot become an elephant). This redefinition is intended to undermine the preparation of the opposition. The proposition opens and closes the debate, giving them the first and last word.

Drawbacks

The proposition has the burden of proof. This means that it must demonstrate beyond a doubt to the judges that the proposal is better than the status quo.

The first speaker of the proposal opens the debate. They outline the topic, provide appropriate redefinitions, outline the argument plan and make the first arguments. They are also the one who closes the debate.

The role of the second speaker is to refocus the debate and strengthen the position of their team. This person must complete the team's argumentative plan and refute the opposition's arguments.

3.1.6.3 Role of the opposition

The opposition must contradict the resolution. It must sow reasonable doubt for the judges that the resolution is less good than the status quo.

Benefits

The opposition does not need to demonstrate the merits of its own position; it can simply deconstruct the merits of the opposing position. It must show that the motion brings more disadvantages or fewer advantages than the status quo. The opposition may use the proposition's opening speech time to refine their arguments before taking the stand.

Disadvantages

The redefinition brought by the proposition team may seriously invalidate the opposition's preparation.

The first speaker of the opposition states their team's position on the proposed subject. They must present their team's argumentative plan, make their arguments and refute the arguments already made. They should also close the opposition's view of the debate.

The role of the second speaker is to refocus the debate and strengthen the position of their team. They must complete her team's argumentative plan and refute the proposal's arguments.

3.1.7 Competition Process

3.1.7.1 Before the competition

A period will be available to the delegations before the competition. This meeting will be a review of the rulebook. Teams may also ask questions to the competition director.

3.1.7.2 Qualifying Round

A random draw will be held to select which teams compete against who. Each team will play 3 matches during the qualifying rounds. Following these qualifying matches, the top 8 teams

will be selected to participate in the knockout rounds. The following criteria, presented in their order of priority, will be used to determine the ranking of the teams:

- The number of victories
- The number of judges in favor
- The average score
- The number of procedural points sustained against

3.1.7.3 Knockout Round

The 8 best teams will face off in knockout rounds. The order of the top four positions will be revealed at the banquet. All teams declining to participate will allow the teams below them to move up a place.

3.1.7.4 Evaluation

The debate is judged based on which team convinces the judges best. Each judge will individually decide the winning team of the debate and give their vote to the chairperson. The chair will tally the votes and announce the winner. The judges may vote for either the proposition or the opposition and may not vote for a tie. The verdict of the matches is final. In addition, the Chairperson and the Competition Director have no authority over the judgment of the judges.

The evaluation rubric is provided on the next page.

Proposition		Opposition	
First Speaker Argument:	/3	First Speaker Argument:	/3
First Speaker Procedure:	/3	First Speaker Procedure:	/3
First Speaker Communication:	/3	First Speaker Communication:	/3
First Speaker Presentation:	/3	First Speaker Presentation:	/3
Second Speaker Argument:	/3	Second Speaker Argument:	/3
Second Speaker Procedure:	/3	Second Speaker Procedure:	/3
Second Speaker Communication:	/3	Second Speaker Communication:	/3
Second Speaker Presentation:	/3	Second Speaker Presentation:	/3
SUBTOTAL	/24	SUBTOTAL	/24
Arguments in favor of the proposition beyond a reasonable doubt:	5/Argument	Arguments in favor of the opposition beyond a reasonable doubt:	5/Argument
Points of order accepted:	1/Point	Points of order accepted:	1/Point
TOTAL		TOTAL	

Figure 3.1 Evaluation rubric for the 2025 Engineering Games debates

Pts	Arguments/Refutations	Debate procedure	Communication	Presentation Style
3	 Are well thought out and supports the position assigned to the debater Demonstrate critical thinking Clearly follow the definitions established in context of the debate Are precise Refutations are relevant and solid 	 The debater addresses the chair Shows a clear comprehension of their role in the debate Uses questions and/or whisperings very effectively 	 Main arguments/refutations were well supported All arguments are clearly related to a premise and are logically organised All declarations, body language, and responses were respectful and appropriate 	 The debater was extremely effective at keeping the audience engaged using all of the following elements: gestures, eye contact, tone of voice, and enthusiasm.
2	 Are well thought out and supports the position of the debater Demonstrate critical thinking Are mostly precise Refutations are relevant 	 The debater addresses the chair Shows a comprehension of their role in the debate Uses questions and/or whisperings effectively 	 Main arguments/refutations were supported All arguments are related to a premise and are logically organised Most declarations, body language, and responses were respectful and appropriate 	 The debater was effective at keeping the audience engaged using some of the following elements: gestures, eye contact, tone of voice, and enthusiasm.
2	 Support the position of the debater Demonstrates critical thinking Are slightly incoherent Refutations are only somewhat relevant 	 The debater occasionally addresses the chair Shows some comprehension of their role in the debate Attempts to use questions and/or whisperings 	 Main arguments/refutations were not well supported All arguments are not well- connected The debater is occasionally disrespectful or inappropriate 	 The debater tried using one or multiple of the following elements: gestures, eye contact, tone of voice, and enthusiasm.
1	 Provide incoherent information for their solution Lack critical thinking Present major factual errors, false ideas or wrongful interpretations Refutations are not relevant 	 The debater does not address the chair Does not demonstrate comprehension of their role in the debate Does not try to use questions or whisperings 	 The arguments/refutations were not supported The arguments were disorganized The debater was often disrespectful or inappropriate 	 The debater did not use any of the following elements: gestures, eye contact, tone of voice, and enthusiasm.
	/3	/3	/3	/3

Figure 3.2 Points table for the 2025 Engineering Games debates

3.2 Trivia [Presented by SFL]



Heads : Cédrick Charest et Pierre-André Girard
Schedule: Saturday, January 4, from 1:30 PM to 5:00 PM
Participants: A maximum of four (4) people per delegation

Trivia is a quiz game focused on general knowledge in which two (2) teams, each composed of four (4) players, compete against each other.

3.2.1 General Overview

3.2.1.1 Points

Points are awarded for each correct answer given to a question posed by the host. The team with the highest number of points wins the game. (More information can be found in section 3.2.7.3 Points (detailed section)).

3.2.1.2 Game Console

The game is played with a quiz game console that determines which player has the right to answer. The console has the following features:

- Eight (8) indicator buttons that trigger a visual and auditory alert
- Two (2) sets of four (4) indicator lights (one (1) set per team)
- Two (2) distinct tones (one (1) for each team)
- A circuit that checks if a player has activated their indicator, and if so, prevents the other indicators from being triggered until the console is reset

3.2.1.3 Questionnaire

The questionnaire consists of 36 questions for the preliminary rounds and 48 questions for the final, divided into various sequences.

Question Types	Number of Questions		
Question Types	Preliminary Rounds	Final	
Language and Linguistics in sacrifice	4 questions	4 questions	
Combined categories	3 questions	5 questions	
Spelling specifics	5 questions	5 questions	
Combined categories	3 questions	5 questions	
Identification by clue	4 questions	4 questions	
General combined categories	3 questions	5 questions	
Choice with consultation - thematic	6 questions	6 questions	
General combined categories	3 questions	5 questions	
Face-to-face with the last category	4 questions	4 questions	
Lightning (resurrection)	6 questions	10 questions	

Table 3.3 Composition of the Questionnaire

The nine (9) general categories are:

- 1. Geography
- 2. Science
- 3. Music
- 4. History
- 5. Art and Cinema
- 6. Sports
- 7. Mathematics, Technology, and Finance
- 8. Literary World
- 9. Arts of Living

There are three (3) main types of questions:

- Collective questions, which are posed to all players
- Team questions, which are posed to all members of a team
- Individual questions, which are posed to a single player

Questions may be with or without consultation.

Questions may be with or without the right to reply.

3.2.2 Description of Roles

3.2.2.1 Game Leader

Each match is led by two (2) people:

- The reader
- The scorekeeper

3.2.2.2 Reader

The reader:

- Reads the questions
- Allows a player who has pressed its button to respond
- Judges the accuracy of the answers given by the players
- Awards points for correct answers according to the rules
- Generally, ensures the application of the game rules

This person must maintain a steady pace and be alert to anything that may occur during a match. They should have a copy of the rules and ensure compliance.

3.2.2.3 Scorekeeper

The scorekeeper:

- Compiles points scored and deducted during the match on the designated score sheet
- Records any significant events that occur during the match
- Determines the consistency between a given answer and the one indicated in the questionnaire
- Resolves any specific disputes. Their decisions are final, except regarding the validity of an answer
- Collects the answer sheets from players during written questions

Generally, scorekeepers only intervene during the match at the request of the reader. After the match, they handle disputes from team captains regarding **the course of the game** and deliberate on decisions to be made after consulting the director.

3.2.2.4 Director

The directors are responsible for the smooth conduct of the competition matches. They must ensure that each table has a reader and a scorekeeper.

COMPETITIONS BOOKLET | PAGE 41

The directors provide captains with necessary information and prepare the materials (score sheets, game consoles, dictionaries, paper, and pencils...) and tables to be used during the matches. They must reproduce the questionnaires if necessary; however, it is important that the questionnaires remain confidential.

For any disputes, the directors are the only individuals authorized to make a decision.

They oversee the distribution and reproduction of all documents intended for teams and officials. They must possess a copy of these rules to make them available to everyone.

3.2.2.5 Team Composition

During a match, a team normally consists of four (4) participants. No team may compete if it is not composed of a minimum of two (2) participants. The team will also choose a captain who will be the spokesperson in the event of a dispute.

Delays and Absences of a Player or Team

- A player arriving late may join the ongoing match between two rounds.
- If no player shows up for a match five minutes after the scheduled start time (or after the distribution of questionnaires if this occurs after the scheduled start), the team loses the match by default. Besides the points in the standings, this match will not affect the statistics of either team.
- If both teams fail to show up for a match, both teams will receive a default loss.

3.2.3 Match Procedure

3.2.3.1 Console Test

Before the match begins, the reader conducts a console test by asking each player to press their button in turn. If any part of the console is found to be defective, it will be replaced, or the entire console may be replaced if necessary.

3.2.3.2 Defective Console

If a player believes that a part of the console is malfunctioning during the match, they must notify the reader between two (2) questions. After verification, the defective part will be replaced if necessary, and the game will resume from where it left off before the console check, with no opportunity to dispute previous questions.

3.2.3.3 Etiquette

During the match, players must exhibit polite and dignified behavior, avoiding ridicule of the game or opponents. They should only address the game leaders to respond to questions.

3.2.3.4 Reading Order

The reader reads the questions in the order they appear in the questionnaire.

3.2.3.5 Sequence Identification

At the beginning of each sequence, the reader announces the title of the sequence and specifies the type of questions (collective, team, or individual), whether players may consult one another, and whether there is a right to reply.

3.2.3.6 Waiting to be Named Before Responding

A player who activates their indicator must wait to be named before giving their answer. A warning will be issued once per match per player if they do not wait to be named before answering. If a warned player does not wait, their answer will be automatically rejected, and a reply will be given if applicable.

3.2.3.7 Response Time

The time allowed for players to answer questions is consistent from question to question, both for the initial response and for the right to reply.

3.2.3.8 Ten-Point Penalty

A ten-point penalty is enforced across all categories if an incorrect answer is given while the question is not fully read. Words in parentheses at the end of the question are optional and will not be considered part of the question. Therefore, a player who activates their indicator when only those words remain will not be penalized.

3.2.3.9 Consultation

Unless indicated otherwise by the reader, no consultation is allowed between players during a match.

3.2.3.10 Non-Verbal Consultation

Non-verbal consultation is allowed between players during the match, as long as no clues are given to the players.

3.2.3.11 Communication with the Audience

The audience must remain silent during the match. Any game leader may expel a member of the audience who violates these rules without warning. Unless indicated otherwise by the reader, scorekeeper, or game leader, no communication is allowed between players, the reader, the scorekeeper, or any audience member.

3.2.3.12 Disciplinary Measures

A team, player, or players whose conduct is severely unsportsmanlike or disrupts the flow of the game significantly will receive one warning. This warning will be recorded on the score sheet and will remain in effect for the duration of the competition.

Upon a second warning, the offending individual will be expelled from the match. The team cannot replace the expelled player during the match, but the game will continue, and the penalized team may play with three players. The expelled player may participate in subsequent matches.

Upon a third warning, the offending individual will be expelled from the match and the competition. The team cannot replace a player during the match, but the game will continue, and the penalized team may play with three players. The penalized team may replace the expelled individual with a substitute in subsequent matches if applicable.

3.2.3.13 Draw Matches

Draw matches are possible.

3.2.3.14 Disputes

Score Verification

At the end of the match, the game leaders check for any errors in the scoring. They may also do this midway through the match if deemed appropriate. They will also ask the captains of both teams if they have any questions regarding decisions made during the match.

Timing of Disputes

Any dispute must be raised at the end of the match. However, it is possible to contest the course of the game when the disputed point has implications for the entire sequence (the choice).

Right to Contest

During the match, only the captain may express disagreement regarding a decision made by the game leaders. A team that believes the outcome of a match has been adversely affected

due to a contestation from their opponent may also lodge a dispute, even if it only has the potential to change the outcome if the opposing team's contestation is accepted.

Formal Contestation

Any dispute regarding the application of rules and procedures (e.g., inadvertent answer given, reading error, answer rejected for technical reasons, prompting, etc.) will be resolved by the game leaders on site when possible.

The game leaders will hear from the captain of each team present to obtain their version of events.

The game leaders will then determine whether the dispute is accepted or rejected, and in the latter case, decide the best way to resolve the disagreement.

Inadvertent Answer

If the reader or scorekeeper inadvertently provides the answer to a question, the reader will ask a new question from the order in which they appear in the additional question bank attached to the questionnaire. If this occurs during a reply, the reader will ask the additional question to the team or player entitled to reply. Points obtained from the additional questions will be counted in the events where they served as replacement questions.

If no additional questions are listed in the questionnaire, an extra question will be presented by the directors at the end of the match, only if that question has the potential to change the match's outcome.

Substantive Contestation

Any dispute regarding the validity of answers given will be resolved by the game leaders. In the event of a blatant error, a reader may accept an answer different from that specified in the questionnaire, but this is not a final decision and may be contested.

Decision

Any accepted dispute will be resolved by adding or deducting points, granting a reply, asking one or more additional questions, or asking any questions that were not previously addressed.

Immunity

There is no penalty for a contestation that is denied by the administration.

3.2.3.15 End of Match

The game leaders must clearly write their names on the score sheet at the end of the match after ensuring that the displayed score is correct.

3.2.4 Acceptable Responses

3.2.4.1 Official Response

The acceptable responses are those written on the questionnaire. The minimum information required in the response is indicated in bold.

3.2.4.2 Alternative Responses

Unless otherwise specified in the question, players may provide abbreviated responses such as the last name of a character, an acronym, etc.

This does not apply in the following situations:

- When a chemical symbol is given instead of the name of a chemical element
- When an astronomical number is given instead of the name of a celestial body
- A person's first name is required only when explicitly requested in the question. Similarly, if a monarch's name is given without a number, it is assumed to be the first, and the answer will be judged accordingly without requiring clarification. In all cases, a person can be referred to by a pseudonym or another name commonly recognized (e.g., Lady Gaga for Stefani Germanotta or Cleopatra for Cleopatra VII).
- If an element of the response is already indicated in the question, a response that does not repeat the indicated element but includes all other required elements should be accepted.
- If a work is referred to only by its subtitle or only by its title, a response containing just the part of the title commonly used to identify the work should be accepted. Responses like "Infinity War" and "Frankenstein" should be accepted if "Avengers: Infinity War" and "Frankenstein; or, the Modern Prometheus" are the sought works.

3.2.4.3 First Accepted Response

If a player gives two (2) responses, only the first response will be considered.

3.2.4.4 Request for Clarification

When a player gives an incomplete but not incorrect answer, or when distinguishing between two (2) phonetically similar answers, the reader may ask them to repeat or clarify their response. This response will be accepted or rejected based on the accuracy of the repetition or clarification.

3.2.4.5 Repetition of a Question

A player may not request the reader to repeat a question or provide explanations about it. However, the reader may, on their own accord, repeat a question if it becomes inaudible for reasons beyond the control of the players or game leaders.

3.2.4.6 Pronunciation

No response will be refused on the grounds that it is pronounced in a French accent or in the original language, unless the response is unintelligible. If necessary, the reader may ask the player to repeat or clarify their response.

3.2.4.7 Language

The official language of the competition is French. However, if one team wishes to play in English while the other prefers French, the following alternation will apply: the first question will be asked first in French, then in English. The second question will be asked first in English, then in French, and this sequence will repeat for each question in each category. If both teams wish to play in English, all questions will be in English.

3.2.5 Questionnaires

3.2.5.1 Sequences

Collective Questions

These questions emphasize speed. The first person to press the button has the right to respond. If the response is incorrect or the player cannot answer, the right to respond passes to the other team, which must signal their intentions by pressing their button in turn.

Individual Questions with Sacrifice

These questions are directed at all players, but only one player from each team may respond. The answer must be given in writing. Once a player responds, they cannot answer again for the remainder of the category. Teams may consult on who will answer, but consultation about the question itself is not permitted.

Combined Category

This consists of a sequence of 3 or 5 collective questions. The first one or two questions will be from one category, the middle question(s) will be from a second category, and the last question will be one that could apply to both categories.

Orthographic Particularities

A sequence of 5 collective questions. The orthographic particularities involve all answers containing a consecutive group of letters placed within the word, sometimes at the beginning, sometimes in the middle, and sometimes at the end.

Identification by Clues

The aim is to identify a character, place, event, etc., by providing four hints that range from general to specific. The first hint is worth 40 points, decreasing by 10 points for each subsequent hint. The right of reply is maintained for each hint. The reader will read the hints in full before moving on to the next one if interrupted.

Choice with Consultation

The team with the fewest points will choose between two categories. If there is a tie in points, the team with the fewer points (-10) decides. If there is still a tie, no choice is given, and the reader will follow the order in the questionnaire. After the themes are announced, the team with the choice will decide on the theme for themselves, and the other team will receive the other theme. Teams may consult each other, but there will be no right of reply.

Face-to-Face

In Face-to-Face, two players will be identified by the reader, and only these two may respond. The first person to press their button will receive 10 points if they provide a correct answer; the other player from the opposing team will have the right to reply.

Lightning Question with Resurrection

These questions are brief and generally require short answers. The first player to respond earns 10 points, like collective questions. There is a right of reply. In this sequence, a player who answers correctly can eliminate an opposing player **OR** bring one back to life. An incorrect answer does not have any consequences.

Lightning questions must not form sequences; each must be chosen from a different domain.

3.2.6 Categories

Geography

Questions focus on countries, cities, geographical features, monuments, theoretical concepts, international tourism, as well as Canadian and Quebec tourism, etc.

Science

Questions in this category cover both life sciences (biology, ecology, zoology, medicine, chemistry, etc.) and pure sciences (physics, astronomy, geology, etc.), as well as social sciences (psychology, philosophy, economics, anthropology, political theory, sociology, etc.).

Music

Questions pertain to composers, singers, music groups, theme songs from movies or shows, albums, music theory, performances, and music awards, among others.

History

Questions in this category deal with figures, places, and events in human history, also touching on disciplines beyond just political history.

Art and Cinema

Questions cover everything related to architecture, painting, sculpture, dance, photography, and cinema. Topics may include artistic movements and techniques, artists, and works, both classical and contemporary.

Sport

Questions address amateur or professional sports, athletes, sports equipment and accessories, sports regulations, etc. It's noteworthy that video games, board games, and other leisure activities fall under the category of Art of Living.

Mathematics, Technology, and Finance

Questions focus on mathematics, technology, or finance.

Literary World

Questions relate to all things literary from past to present: authors, works, literary movements, comics, genre literature, poetry, major collections, and publishers.

Art of Living

Questions in this category focus on video games, board games, leisure activities that are not generally considered sports, hobbies, fashion, gastronomy, humor, cocktails, and microbreweries, etc. Theatrical performances and their productions are also part of the Art

of Living category, but questions about a play's text or its author belong to the Literary World category.

3.2.7 Competition Format

3.2.7.1 Competition Structure

- The competition consists of two rounds: the preliminaries and the finals.
- Twelve teams will participate in the preliminary round and will play four (4) matches in a Swiss system.
- The two (2) teams with the most points after four (4) rounds will play a final to determine the winner.
- The two (2) teams finishing in third and fourth place will play a small final to determine third and fourth place.
- The other eight (8) teams will be ranked based on their points.

3.2.7.2 Swiss System

In a Swiss system, a team does not compete against all other teams. Opponents are paired in each round according to rules that ensure each team meets a different opponent, with similar scoring. All teams play in each round.

Teams will be paired with:

- One team with the closest score and,
- One team they have not previously played

3.2.7.3 Points (Detailed Section)

There are three possible outcomes for a team in a match, and points are awarded as follows:

- A win grants one (1) point to the team
- A loss awards zero (0) points to the team.

3.2.7.4 Tiebreaking

If there is a tie between two (2) teams after the four preliminary rounds, the tiebreaking system is as follows:

• If the two teams have played against each other, the winner of that match breaks the tie

- Otherwise, The Buchholz system will be used to break ties.
- If the Buchholz scores are identical, the team with the higher total score from previous matches breaks the tie.
- If the total is identical, the team with the fewer -10 penalties breaks the tie.
- If the -10 counts are also identical, the directors will determine a tiebreaker.

3.3 Improv [Presented by Tetra Tech]





Heads: Benjamin St-Laurent et Andi Camille Bakti
Qualifiers: Saturday, January 4, from 1:30 PM to 5:00 PM
Finals: Sunday, January 5, from 8:00 PM to 11:00 PM
Participants: A maximum of four (4) people per delegation

The improvisation match was invented in Quebec in the late 1970s by the duo Robert Gravel and Yvon Leduc. It brings together two teams to perform an improvised show in a concept inspired by a game of hockey. Assemble your own troupe to make the audience laugh or cry!

3.3.1 Duration

- The qualification matches have a length of 15 minutes and consist of 3 improvisations.
- The semifinals and third place final have a length of 30 minutes and consist of 5 improvisations.
- The final has a duration of 45 minutes and consists of 7 improvisations.

3.3.2 Team composition

Each team is composed of 4 players and should preferably be gender diverse, but this is not required. A team with an incomplete roster (3 players or fewer) will automatically receive a major penalty for an illegal number of players at the start of the match.

3.3.3 Match Progression

3.3.3.1 Reveal of the improvisation card

The referee reads aloud the improvisation card: the type, theme, number of players, category and duration of the improvisation.

3.3.3.2 Discussion (caucus)

The players and coach of each team have 30 seconds to discuss what will take place in the rink. The referee signals the start of the improvisation with a whistle.

3.3.3.3 Distribution of points

Points obtained from votes

After each improvisation, the referee asks the audience and the two judges to vote for the best improvisation. The audience vote counts as one vote (determined by majority of the audience votes) and each judge's vote also counts as one vote. The team with the most votes wins the point. If less than 10 spectators are present during a match, the audience vote will be replaced by the referee's vote. The referee has the authority to request a recount of the room from their linespersons. No request for a recount by a team will be allowed, except during the final. If there is a tie, one point will be awarded to each team.

Points obtained from penalty points

The penalized team receives one or two penalty points depending on the nature of the infraction (minor or major). The minor penalty, unlike the major penalty, does not voluntarily destroy the game (see section <u>3.3.5 Penalties</u>). The accumulation of three penalty points by a team automatically gives a point to the opposing team.

Explanations

After a penalty, the captain of the team has the right to ask for an explanation from the referee. If the captain is the one penalized, they will be replaced by the assistant captain. Any discussion with the assistant must take place in the LNI circle at the center of the playing area.

3.3.4 Decorum

The Referee

The Referee is in absolute control of the game. At any time, the referee may impose a penalty on a player or a team for any infraction that affects the quality of the game. Their decisions are final.

The Captain

A team captain may ask the referee for an explanation of their decisions following the announcement of penalties. They are entitled to a question and a reply. Concision and politeness are required. In case of abuse, the referee may impose an additional penalty.

The Coach

A team may have a coach present on the bench. This person may be a member of the delegation or a parrain/marraine, but may not be a player who has been ejected from a game before.

The substitute player

A substitute player may accompany the team and replace a player between games.

The play area

The playing area is delimited by the boards that form the rink. To be part of the improvisation in progress, the player must physically enter the rink. A player who has intervened and wishes to withdraw from the game must remain inside the boards and adopt a neutral position (the small ball). For a short intervention off the field, the player may remain on the bench. A player on the playing surface may not communicate with anyone on the bench unless he/she is in a neutral position.

Team Composition

After placing himself/herself in a neutral position, the player can return to the current improvisation with a character that he/she has already played during the improvisation, or with a new character.

Communication on the bench

In mixed play, the players and the coach can communicate with each other. In comparative play, the team not in play may not communicate. An illegal procedure penalty will be given if verbal or non-verbal communication is used.

Dress code

Each player must wear black pants, a non-obtrusive shirt and shoes. The shirt must represent the university or the team's theme and must be the same, or at least the same color, for the whole team. It is forbidden to chew gum or wear jewelry/watches. It is strongly recommended to have your hair tied.

3.3.5 Penalties

Note on Penalties

Any minor penalty may be increased if necessary.

Illegal prop

A player using a prop other than their sports shoes, jogging pants, t-shirt or hockey jersey (watch, glasses, long hair, etc.).

Joke-telling

A player trying to pander to the audience by telling jokes unrelated to the improvisation. Gratuitous sexual references or jokes in poor taste also qualify as antics.

Cliché

A player remakes a scene or story that has been seen elsewhere. The excessive use of a character already seen in the tournament is also a cliché.

Confusion

A player loses the thread of the story. The story no longer makes sense or its progression is disrupted.

Dropout

A player loses concentration and falls out of character.

Lack of listening

A player forgets elements of the story such as the names of the characters or where they are located.

Illegal number of players

The team sends more (or fewer) players than required.

Failure to follow the theme/category

The team plays without regard to the theme or category given by the referee.

Refusal of character

When a player refuses the role (character) of another player, or the one offered to them by another player. When a player suddenly changes their character during the improvisation without justification or plausible explanation.

Delay of game

A team is late in starting an improvisation when the whistle signals the end of the caucus, when a player prevents the situation from progressing, when the game is slowed down by an inappropriate intervention or when a captain stretches out his requests for explanations.

Rudeness

A player refuses to cooperate with others, imposes a character or ideas on another player, or physically bullies a player. A player monopolizes attention without a valid reason and without advancing the action.

Illegal procedure

A caucus goes on beyond the time allowed; there is communication between the bench and the players in play; there is discussion on the bench of the team not playing.

Misconduct (Major Penalty)

A player causes major disruption to the performance or engages in unsportsmanlike conduct. As this is a major penalty, the player is automatically ejected.

Ejection

In the case of excessive penalties or extreme behavior, the referee reserves the right to expel a player until their next game.

3.3.6 Nature

Comparative

Each team, in turn, must improvise on the same theme. The team designated at random by the color of the puck has the choice to start or not. No communication will be allowed on the bench during the other team's improvisation. In case of a violation, a penalty will be awarded to the offending team by the referee.

Mixed

One or more players from both teams must improvise together on the same theme.

3.3.7 Categories

Free

Players can be inspired by whatever they want to create their improvisation. They must, however, stay within the physical limits of the game.

In the style of...

Players are inspired by the chosen subject (horror movie, American soap, children's story, etc.) to do an improvisation in its style.

Imposed props

The players use the prop imposed by the referee. The use of the object must be different from that of real life.

Singing

The players sing. The tune of the song can be taken from an existing work.

Exaggeration

The improvisation takes place in three stages. First, a normal improvisation is played. A second improvisation slightly exaggerates the story of the first. Finally, a third improvisation **REALLY EXAGGERATES** the first story.

Shootout

A player is given the title of his or her improvisation just before playing it.

American Dubbing

Players dub the voices of other players in the rink. Players in the rink are not allowed to speak.

Narration

One player tells the story to the audience. The other players tell the story under the direction of the narrator, but they may also speak.

Chase

One team begins the improvisation. When the whistle blows, the team freezes to let the other team finish the story.

Quick change

When the referee blows the whistle, the players must take their last sentence and change it completely.

Accelerated

The same improvisation is played in 2 minutes, in 1 minute and in 30 seconds.

Rhyme

Players rhyme (or make a serious effort to do so) with each line.

Videoclip

The referee forces a song or piece of music on the players.

Videoway

Three duet improvisations are played alternately (V1, V2 and V3). The goal is to create different skits according to the situation imposed.

Zapping

When the referee blows the whistle, the players must take their position and start a new improvisation.

Sound Effects

This is an improvisation where a player, separated from the stage, must create all the sounds that occur during the action.

Advertisement

This involves an improvisation that must promote a product.

Time Travel

Each time the bell rings, the time period in which the story takes place must change, without altering the storyline or the essence of the characters.

Press Conference

A player responds to a press conference with members of the other team sprinkled throughout the audience.

Referee's category

The referee may impose on the players a category that is rarer than those already defined. This category will be given in due course.

3.3.8 Tournament

Qualifiers

During the qualifying round, the twelve (12) delegations will be separated by a draw into two pools and each delegation will play three games (these games will also be randomly drawn). The top two teams from each pool will advance to the semi-finals. The ranking will be based on wins, differential (number of improvisations won) and penalties received.

- A win is worth 2 points
- A loss in overtime is worth 1 point

• A loss in regulation or by forfeit is worth no points.

In case of a tie, there will be six shoot-out improvisations (three on each side) to decide the winning team.

Finals

There will be four games on finals night: two semi-finals, a bronze final and a final. In the event of a tie, there will also be shootout improvisations to decide the winning team.

4 Sports Competitions

4.1 Indoor Sport- Tchoukball

🐮 General Information

Head: Yannick Morin

Schedule: Saturday, January 5, from 8:00 AM to 5:00 PM (times subject to change)

Participants: Team of a maximum of 12 people, including substitutes. Two teams of 7 people compete at the same time.

Tchoukball is a team sport that combines elements of handball and volleyball.

4.1.1 Objective of the Game

The goal is to score points by throwing the ball against the frame so that it bounces and touches the ground outside the "forbidden zone" without the opponent being able to catch it.

4.1.2 Field Configuration

The game is played on a field that is 27 meters long and 16 meters wide. At each end of the field, there are two inclined trampolines called "frames."

Forbidden Zone

There is a semi-circular area with a radius of 3 meters around each frame, called the "forbidden zone." Players are not allowed to enter or throw the ball from this zone.

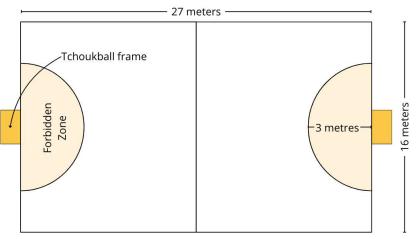


Figure 4.1 Tchoukball field

4.1.3 Game Play

Players can make a maximum of 3 passes before shooting at the frame. A player may take no more than 3 steps while holding the ball and cannot hold the ball for more than 3 seconds.

Change of Possession

If the attacking team misses the frame or if the ball hits the frame and bounces back directly to the player who shot, possession is given to the opposing team.

Defense

Unlike other sports, defensive players cannot intercept or directly interfere with the attacking team's passes. Defense is played by positioning strategically to catch the ball after it rebounds off the frame.

4.1.4 Duration of the Game

The match consists of two halves, each lasting 20 minutes, with a 5-minute break between halves.

4.1.5 Points

A point is scored if the ball, after bouncing off the frame, touches the ground without being caught by the opponent. If the attacking team makes a mistake (such as throwing the ball out of bounds or hitting the frame without the ball touching the ground), the opposing team receives a point.

Tchoukball is designed to minimize physical contact between players, promoting respect and sportsmanship.

4.2 Outdoor Sport – Volleycross

General Information

Head: Madeleine Lepage

Schedule: Saturday, January 5, from 8:00 AM to 5:00 PM (times subject to change)

Participants: Team of 6 to 8 people dressed warmly

4.2.1 Objective of the Game

Teams must score points in a space divided by two perpendicular nets. The team that reaches 21 points first wins the game (with a lead of 2 points or more).

4.2.2 Field Configuration

The 9 x 9 meter field is divided into 4 equal-sized squares, separated by two volleyball nets. The two competing teams are divided into two sub-teams, positioned diagonally from their teammates. For example, Team A (red) is divided into 2 sub-teams of three players each, positioned in the upper left quadrant and the lower right quadrant. Conversely, Team B (blue) is separated between the upper right and lower left quadrants.

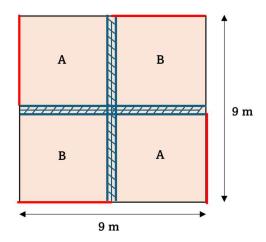


Figure 4.2 Field Configuration

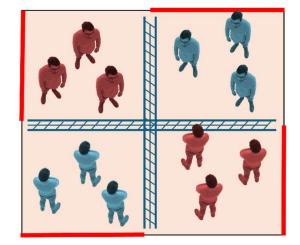


Figure 4.3 Team Positioning

4.2.3 Start of the Game

A coin toss determines which team will serve first—in this example, Team A/red wins the toss and starts with the serve. The game begins with a serve performed by the player who won the toss, who must position themselves behind the red line of their zone. Under no circumstances may the player's feet cross the red line before the serve is executed. The ball must cross into the opposing zone in front of this line for the serve to be valid. For a serve by the player from Team A in the upper left quadrant, the service line is located at the far left. Thus, the player stands behind this line and serves into the upper right quadrant (not the lower left quadrant)—see Figure 4.3. Figure 4.4 illustrates the area to which each serve must be sent, according to the service line from which the serve is made.

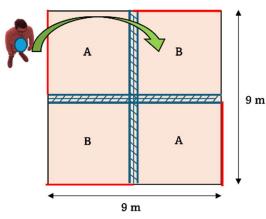


Figure 4.4 Serve by the Player from Team A

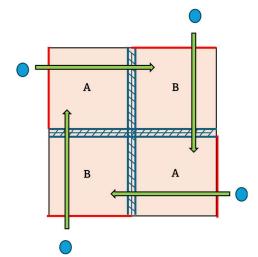


Figure 4.5 Service Zone Based on Starting Position

4.2.4 Service Rotation

Each team is responsible for following its order of rotation for players serving. For example, if Player 1A starts the serve (see Figure 4.5), they retain the serve until their team loses a point. If this happens, the serve is given to Team B. When Team A regains the serve, a clockwise rotation must occur within the other sub-team A, and the serve is then given to Player 4A (see Figure 4.6). If the serve is lost again and then regained by Team A, it will be Player 3A's turn to serve, and so on. The same rotations are applied within Team B.

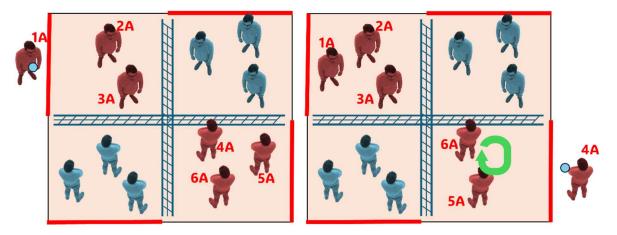


Figure 4.6 Player 1A is serving

Figure 4.7 Team A regains the serve

The same player may not serve more than 5 consecutive times. On the 6th serve, the service is given to the other team. Teams with more than 6 players must make substitutions. Substitutions can occur during a service rotation, where one player exits while another enters to serve. If a team makes substitutions, it must maintain the same order throughout the game.

4.2.5 Touches and Passes

Each sub-team is allowed a maximum of 3 touches to send the ball into any opposing zone. Sub-teams can make a diagonal pass to teammates in the other sub-team, which increases the allowed number of touches to a total of 4. For a diagonal pass to be valid, the player striking the ball must shout "Pass!" before or at the same time. The opposing team is not allowed to block this pass. If the referee determines that the ball was struck before the player shouted "Pass!", the diagonal pass will be invalidated, and the point will go to the opposing team. A diagonal pass allows a team to score 2 points. If a team scores immediately after completing a valid diagonal pass, they receive an additional point.

4.2.6 Attacks

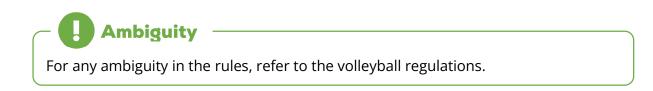
When a team receives the ball, they can choose to attack directly towards one of the two opposing sub-teams positioned on either side.

4.2.7 Points

A point is scored when the ball touches the ground in one of the opposing team's squares, or if the opposing team commits a fault (such as exceeding the allowed number of touches). The diagonal pass allows the last team to have executed it in an exchange to score an additional point.

4.2.8 Additional Clarifications

- During the serve, the player striking the ball must shout "Serve" before serving, to alert the receiving team. The team will receive two (2) warnings before losing a point for each omission.
- Blocking a serve is prohibited.
- Men may only block attacks from other men. There are no other restrictions on blocking.
- If the ball falls outside the field, the last team to touch it loses the point.
- A block does not count as a touch.
- Any part of the body can be used to make a touch.
- A player may play a ball out of bounds as long as they do not go under the net or step into the opposing zone.
- There is no interference allowed in the opposing zone. If a team member makes contact with the ball by reaching into the opposing zone, the point is awarded to the other team for interference. The opposing team cannot interfere with a diagonal pass.
- A player cannot make contact with the net.
- All rules are subject to change.
- Tous règlements peuvent être sujet à changements.



4.3 Pool Sport – Aquatic Police and Thief

General Information
Head: Marc-Antoine Déry
Schedule: Saturday, January 5, from 7:00 AM to 4:30 PM (times subject to change)
Participants: Team of 5 to 6 people per delegation

"Aquatic Police and Thief" is an exciting game that combines elements of "Police and Thief" with the famous game "Marco Polo," all played in a swimming pool!

4.3.1 Objective of the Game

Teams are divided into two: the police team and the thief team. The police must protect their treasures, while the thieves try to steal them and bring them back to their side of the pool as their loot. The treasures consist of various pool toys that can be either floating or sinking. These will be distributed in the pool before the start of each round.

4.3.2 Field Configuration

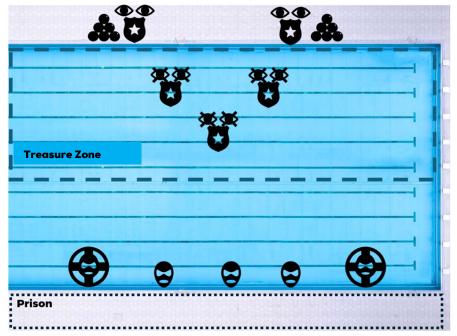


Figure 4.8 Field of Aquatic Police and Thief

4.3.3 Duration of a Game

- 2 rounds per game
- Each round lasts 3 minutes (5 minutes during knockout phases).
- The round stops if all treasures are stolen before time runs out.
- Roles alternate between rounds: the police become thieves and vice versa.

4.3.4 Roles and Rules for Police

There are three (3) blindfolded police officers in the water equipped with opaque diving masks. Two (2) police officers are out of the water guiding their blind teammates verbally. They also throw balls to hit the opposing team. These two police officers must always remain out of the water and on their side of the pool.

No police officer may leave the treasure zone.

Blind police officers can shout "Marco!" and the opposing team must respond with "Polo!" Each blind police officer may shout "Marco!" only once per game.

4.3.5 Roles and Rules for Thieves

Thieves must steal treasures and bring them back to their basket on their side of the pool.

A thief touched by a blind police officer or by a ball must return to the "prison" zone and complete one (1) "burpee" before rejoining the game. If the thief was holding a treasure when touched by the opposing team, they must leave the item behind.

There are two (2) thieves in inflatable rings. They are invulnerable to balls but can still be touched by the blind police officers. Thieves in rings must always remain in their rings (sitting or lying in a surfing position), except when eliminated.

It is prohibited to throw treasures.

4.3.6 Victory Conditions

The team that brings back the most treasures during their thief round wins the game. If both teams bring back all the treasures, the team with the shortest time taken by the thieves determines the winner.

COMPETITIONS BOOKLET | PAGE 67

4.3.7 Equipment

- 10 floating balls
- 2 inflatable rings
- 1 mat (to do burpees without slipping)
- 3 opaque diving masks
- Various sinking and floating pool toys

4.4 Esport - 4 in 1

🐮 General Information

Head: Carl Cordova Miguel

Schedule: Saturday, January 5, from 8:00 AM to 5:00 PM (times subject to change)

Participants: Team of 4 people per delegation. During certain stages, there will be sub-groups of 2, 3, and 4 people.

Esports is defined by Larousse as "the set of practices that allows players to confront their level through an electronic medium, primarily video games, regardless of the type of game or platform (computer, console, phone, or tablet)." Since 2020, esports have been part of the various sports competitions at the Quebec Engineering Games. This year will be the second time that ÉTS hosts such a competition, with the Lan ETS as the organizer.

Context: Spotlight on Minigames

The 2025 edition of the Engineering Games aims to offer participants a different yet highly competitive experience. Instead of the classic format featuring a single game or type of competition, a circuit composed of multiple games from different categories will be proposed. This will allow for a varied experience while putting all players on the same level, regardless of their experience in specific games. This year, the focus will not be on traditional competitive games but rather on shorter minigames. This approach will maximize the number of rounds, competitions, and games.

4.4.1 Competition Details

The esports competition will mainly take place on the Nintendo Switch, with a surprise console used for the final stages (semi-finals and finals).

The format will differ from previous years. Participants will not play just one game, but rather four games:

- 1. Nintendo Switch Sports (Volleyball (2v2), Tennis (2v2), and Sword Fighting (1v1))
- 2. Boomerang Fu (3v3)
- 3. Knight Squad 2 (4v4)
- 4. Surprise Game (2v2)

It is worth noting that the first three games are available on Nintendo Switch, while the last game will be revealed on the day of the competition.

As part of this competition, there will be a pool phase called "Round Robin," where schools will be grouped into fours and will compete twice in a row in Nintendo Switch Sports and Boomerang Fu. Following these matches, teams will be ranked based on the number of victories obtained during the Round Robin and will all advance to the elimination phase, where they will play Knight Squad 2 until the semi-finals, where the game will switch to the surprise game. A third-place match will also take place.

4.4.2 Games

The order of the games has yet to be determined, but it will follow the progression and format of the tournament.

Nintendo Switch Sports

More specifically, the games will include sword fighting (1v1), tennis (2v2), and volleyball (2v2), allowing all team members to participate.

Boomerang Fu

A game available on the Nintendo Switch featuring boomerang battles. It will be presented to participants in a 3v3 format.





COMPETITIONS BOOKLET | PAGE 70

Knight Squad 2

A game available on the Nintendo Switch where teams will compete in intense 4v4 duels.





Jeu surprise

Its main characteristic is... its surprise!

4.4.3 Equipment

Based on the mentioned games, the equipment provided by the organizing committee includes:

- Nintendo Switch
- GameCube
- GameCube controllers
- Joy-Cons or pairs of Joy-Cons
- Megaphone

4.5 Surprise Sport

🐮 General Information

Head: Charles-Antoine Paré

Schedule: Saturday, January 5, from 7:30 AM to 4:30 PM (times subject to change)

Participants: Team of fourteen (14) people per delegation

The surprise sport is a mysterious sport, known to very few for its true nature... However, since the organizing committee wants all delegations to succeed, here's a hint to help you prepare for this sport:



5 Organizing Committee

For any questions regarding the competitions, you can reach the competition team at the following address:

Samuel Rouleau Dionne VPs Competitions competitions@jeuxdegenie.qc.ca Joël Marchand Guérard VPs Competitions competitions@jeuxdegenie.qc.ca