



Interession 2024

Catalog

IMSA's 2024 Intersession runs primarily January 8-12, and 16-19. January 15 is a holiday (MLK). Some Travel Study programs may begin travel prior to January 8.

Sessions will be facilitated in four different modalities:

- **On-Site @ IMSA:** In-person at IMSA's campus in Aurora, IL.
- **Virtual:** Remotely via Zoom.
- **Local:** Partly or fully off-campus with no overnight stays.
- **Travel Study:** Fully off-site and will require one or more nights of overnight stay due the distance from campus. Travel Study applications are closed. Information on 2025 Travel Study programs will be released during the Spring 2024 semester.

Review this catalog prior to making requests, and note all of the details of the sessions you plan to request, including prerequisites and fees.

Student Requirements: Intersession is an IMSA graduation requirement; all IMSA students are required to participate. All students are expected to return to campus for Intersession, except students participating in Travel Study programs. Students enrolled in virtual programs must still be on campus during Intersession.

For 2024, the minimum enrollment expectation for all students is equivalent to any of the following:

- Enrolled in a single (1) Full-Time session; Travel Study programs count as a Full-Time session
- Enrolled in multiple (2+) sessions that equate, roughly, to the day/time commitment of a Full-Time session.

Students may request additional sessions beyond the minimum. Enrollment in additional sessions will be dependent upon schedule fit and seat availability.

Session Times/Dates: Session durations are listed in the catalog. Specific times/dates for session will be determined following student requests and prior to the release of student schedules.

Program Fees: Some sessions include program fees. Students and families must be aware of the fees associated with the sessions selected during the request process. If a student is placed in a session with a fee, the student/family will be responsible for paying the fee by no later than December 20, 2023. Additional information on how to submit payment will be available when student Intersession schedules are released.

Financial Assistance: Limited financial assistance will be available for qualifying students/families (Tier 1 and Tier 2) who are enrolled in sessions with program fees. The assistance will be provided automatically; there is no application process.

Intersession Request Form Link: <https://forms.gle/fv6aVRkZdzNNw9y47>

Student Request Timeline: Requests will be accepted through 11:59pm on Sunday, November 12, 2023. Note that **requests are NOT first come, first serve**; see the next section for details. Student who do not submit requests will have a schedule built for them based on available seats.

Schedule Notification: Students will received an email with their individualized Intersession schedule by no later than Wednesday, November 22.

Request Form Directions: The request form first asks students to input their name, Student ID#, and IMSA email address. Please double-check all of this information to ensure it is correct before submitting the form. Next, the form asks students to submit their “Primary Requests”; these are the 1-5 sessions that would make up the student’s ideal schedule, should we be able to grant these requests. Next, students must provide at least six (6) backup options of sessions different from the Primary Requests. Your backup selections will be used should we not be able to enroll you in enough primary requests to meet the Intersession minimum enrollment expectations. Please note that selections on this form are FINAL! Once students submit the form, selections cannot be changed.

Request Fulfilment Process: To provide equitable opportunities for request fulfilment, requests will NOT be granted on a first come, first serve basis. Rather, all students will have the opportunity to submit the request form during the request timeline. A request fulfilment order will be generated randomly among each class (senior, junior, sophomore), and students will be granted one request at a time starting with the senior class. The intention is to provide opportunities for all students to get some or all of their Primary Requests. Students who do not submit the request form prior to the deadline will be provided a schedule based on what sessions have seats available.

SESSION #: ON1

TITLE: A + M = F2

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Students will have the opportunity to create a Fine Arts (Visual Arts or Music) Portfolio or Journal. They will learn to construct the physical binder of the materials as well as will develop a personal plan for the contents. On-going stress relief and fun is found within the creative process of drawing, painting, playing, performing and composing music, as well as through stream of consciousness thoughts, exploration and experimentation. In addition, if fully developed, the Visual Arts or Music portfolios can be used to demonstrate Fine Arts proficiency, during the College Admissions process.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Joyce Symoniak, Current IMSA Faculty or Staff

Mary Beth McCarthy, Current IMSA Faculty or Staff

SESSION #: ON2

TITLE: An Exploration of Consciousness: Perspectives from Philosophy, Neuroscience, Psychology, and Medicine

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Embark on a multi-disciplinary journey that delves into the enigma of human consciousness, bridging the disciplines of philosophy, neuroscience, psychology, and medicine. This intellectual exploration invites you to engage in thought-provoking readings, lectures, discussions, and multimedia presentations that will introduce you to life's most fundamental questions about being, perception, and the nature of experience. From ancient philosophical inquiries to cutting-edge neuroscientific discoveries, explore historical and contemporary perspectives as you direct your attention inward and formulate your own opinions about what it means to be aware. Furthermore, this exercise will extend beyond theory to illuminate the practical applications of the study of consciousness. Discover how such efforts can impact health and well-being, and contemplate the ethical ramifications for society, culture, and the global ecosystem. By the journey's end, you will possess a profound appreciation for one of life's greatest mysteries and how its investigation can have far-reaching impacts on our world.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum, Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Yaseen Jamal, Alumni IMSA Faculty or Staff

SESSION #: ON3

TITLE: Can History Help Us With Climate Change?

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Environmental historians know that the past is overflowing with examples of humans altering their environment and of their environment altering them. Can the examination of those historical examples help us in our approach to the "wicked" problem of climate change? After an introduction, students will select from a vast list of historical events that include the common property regimes, Tambora volcanic event, PETM, Little Ice Age, Medieval Warm Period, the drying up of major water supplies (Lake Chad or the Colorado River, for example), native fire management practice, the Great Green Wall, or any other topic YOU think is useful. After two days of research, we will present our findings about whether these events help us with climate change to one another and see what we can learn about how to solve the biggest political, economic, and scientific issue of your lives.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Sheila Wille, Current IMSA Faculty or Staff

SESSION #: ON4

TITLE: Chinese Artistry: Calligraphy, Painting, & Paper Cutting Mastery

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

This session will explore the rich artistic traditions that have shaped Chinese culture for centuries. This immersive experience delves into three key art forms: calligraphy, painting, and paper cutting, providing participants with a comprehensive understanding of their history, techniques, and cultural significance.

Participants will embark on a creative journey, introducing them to the graceful strokes of Chinese calligraphy, where they'll learn to wield the brush with precision and appreciate the elegance of the characters. In the painting segment, attendees will unlock their inner artists as they discover the secrets behind traditional Chinese landscape and floral paintings, incorporating techniques like ink wash and color blending.

Furthermore, the session will delve into the intricate art of paper cutting, showcasing the delicate craftsmanship and symbolism behind this ancient folk art. By the end of the session, participants will have honed their skills and gained a profound appreciation for Chinese artistry, leaving them with their own beautiful creations and a deeper cultural understanding of China's artistic heritage. This session promises to be a transformative and enlightening experience for all who attend.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

\$20

FACILITATOR(S)

Christine Zhang, Current IMSA Faculty or Staff

Sophie Wang, Current IMSA Faculty or Staff

SESSION #: ON5

TITLE: Concert Colaboration

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Collaborate to compose Spring Concert Art and Music

CATEGORIES

Academic Support - Session provides academic support toward IMSA curriculum

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Joyce Symoniak, Current IMSA Faculty or Staff

Mary Beth McCarthy, Current IMSA Faculty or Staff

SESSION #: ON6

TITLE: Cracking the Case: Let's Solve a Literary Mystery

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

In this session, participants will try to solve one of the most complex murder mystery stories ever written. Everyone will work together to try to figure out 'whodunit' as we navigate through the story. Unfortunately for us, the pages are all out of order.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum

PREREQUISITES

None

PROGRAM FEES

\$17

FACILITATOR(S)

Cassandra Armstrong, Current IMSA Faculty or Staff

Adam Kotlarczyk, Current IMSA Faculty or Staff

SESSION #: ON7

TITLE: Developing Intuition for the Quantum Realm through Quantum Games

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

This intersession is designed with the goal of offering visual tools to the students against the backdrop of quantum games to develop intuition for the quantum realm. The first day will begin with selected basics of classical information processing such as binary information coding, classical logic gates, and universality. We will then motivate the need for quantum information processing paradigms and delve deeper into the properties such as superposition, entanglement, and interference that make the quantum realm so special. The focus will be on helping the student develop intuition for these quantum concepts through the immersive and visually appealing environment offered by quantum games such as quantum tic-tac-toe and quantum chess. The activity will conclude with a tournament of quantum chess.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Kishor Kapale, Current IMSA Parent

Aditya Kumar, Current IMSA Student

Robert Mandell, Current IMSA Student

SESSION #: ON8

TITLE: Does This Ring a Bell?

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

Come and try your hand at handbell ringing! This unique instrument requires everyone's participation to play a melody. In this course you will learn the basic strokes and techniques used in handbell ringing, how to read handbell music and rhythms, and how to put these together to play songs. The week will end with a mini-concert showcasing what you've learned! The ability to read music is a plus, but is not required.

CATEGORIES

Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Laura Kopff, Current IMSA Faculty or Staff

SESSION #: ON9

TITLE: Dr. Hawker's independent Study and SIR

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

Dr. Hawker's students in both independent study and SIR are working on building a radio telescope and this intersession will be spent working on that project.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Eric Hawker, Current IMSA Faculty or Staff

SESSION #: ON10

TITLE: Drug Discovery SIR

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Our Drug Discovery research group's goal is to design unique compounds that have the capacity to combat diseases for a wide range of disorders. Drug discovery is the process through which potential new medicines are identified. It involves a wide range of scientific disciplines, including biology, chemistry and pharmacology. Our group has collaborations with the pharmaceutical industry and academics institutions.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

Must be enrolled in the Drug Discovery SIR group for the 2023-2024 school year.

PROGRAM FEES

None

FACILITATOR(S)

John Thurmond, Current IMSA Faculty or Staff

SESSION #: ON11

TITLE: Dungeons & Dragons and Stories

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

In this intersession students will be able to learn how to play Dungeons & Dragons (D&D), will write a short adventure, and will play D&D.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives

PREREQUISITES

None

PROGRAM FEES

\$10

FACILITATOR(S)

Eric Hawker, Current IMSA Faculty or Staff

Michael Dean, Current IMSA Faculty or Staff

Steve Dutcher, Current IMSA Faculty or Staff

SESSION #: ON12

TITLE: Efficient Project Management Strategies: A Practical Approach

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Discover the art of effective project management in this intensive Intersession course. Whether you're an aspiring project manager or looking to enhance your skills, this session offers a comprehensive dive into project management.

Learn the fundamental principles, methodologies, and best practices that drive successful project outcomes. Through engaging workshops, real-world case studies, and interactive discussions, you'll gain a deep understanding of project initiation, planning, execution, monitoring, and closure.

Our experienced instructors will guide you through the essential tools and techniques, including project scheduling, risk management, team collaboration, and stakeholder communication. By the end of this session, you'll have the knowledge and confidence to tackle projects of all sizes and complexities, setting you on a path to becoming a proficient project manager.

Join us for this transformative learning experience and unlock the skills needed to excel in project management.

CATEGORIES

Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Sree Lakshmi Venda, Current IMSA Parent

Aashini Sanapala, Current IMSA Student

SESSION #: ON13

TITLE: Following the Threads: A Fiber Arts Immersion

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

You put on clothes, tie shoelaces, carry a bag or backpack, and sleep under blankets. But how often do you really think about the cloth and fibers in your life?

Fiber arts are among the most ancient practices in humanity, and tools for creating and working with fabric have existed for thousands of years. Many of those techniques are still in use today. In this class, you will learn the fundamentals of spinning, weaving, knitting, and crochet, and how they entwine with physics, economics, geometry, language, computing, and even espionage.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Service Learning - Session provides an opportunity for students to support a community or organization, Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Sharon DeCaro, Alumni IMSA Student

SESSION #: ON14

TITLE: Foundations of Personal Finance

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

It's all too common for high school students to graduate without a solid grasp of personal finances. In the worst cases this can lead to costly financial mistakes that can follow students all their lives. In this intersession, participants will learn about some of the most foundational personal financial topics and practical money skills, including how credit scores are calculated, banking and insurance services, overviews of investment and retirement planning, and much more. Participants in this intersession will also have an opportunity to meet with real experts in the financial world to learn and connect directly with insiders. If you have an interest in financial literacy and would like to empower yourself with the ability to create and manage your own personal wealth, then this intersession is for you!

CATEGORIES

Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Cesar Patino, Current IMSA Faculty or Staff

Scott Kreiter, Current IMSA Faculty or Staff

SESSION #: ON15

TITLE: FRC Titan Robotics #2022 Competition Intersession

MODALITY: On-Site

DURATION: Full-Time

DESCRIPTION

The FIRST Robotics Competition (FRC) is an annual international competition where IMSA partners with mentors to design, build, and program a robot for the competition. Intersession week is the first week after the challenge is announced and an ideal time to design and begin building the robot. In the intersession, students will strategically analyze the competition to distill optimal design concepts. Utilizing these concepts, they will collaboratively design, draft, and prototype multiple robots and components in the search for an optimal design. This intersession is mandatory for all members of the IMSA FRC Robotics team, and only current members can participate.

CATEGORIES

Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

Must be on the Titan Robotics #2022 FRC Robotics.

PROGRAM FEES

None

FACILITATOR(S)

Grant Bell, Current IMSA Faculty or Staff

SESSION #: ON16

TITLE: FTC TITANS #17576 Robotics Intersession

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

This intersession will be a required closed session for all FTC Robotics team members that intend on participating at FTC Competitions this school year. In this session team members will gain robotics knowledge relevant to the FTC game tasks and will design, prototype, and finalize a competitive robot to be used for the duration of the 2023-2024 FTC Robotics season.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional Development - Session provides explicit career-focused insights and applications, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

FTC Team Member

PROGRAM FEES

None

FACILITATOR(S)

Grant Bell, Current IMSA Faculty or Staff

SESSION #: ON17

TITLE: Fun Group Fitness

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Fun Group Fitness participants will experience a multitude of exercises throughout the two weeks. If your idea of fun is getting an all-around workout, this is your intersession. Participants will learn how to meditate, practice yoga, and participate in group and personal fitness. You will discover how to take care of yourself through stress reduction techniques and improve your overall mental health through mindfulness fitness. Finally, you will gain a better understanding of how to construct a personal fitness routine. During the second week, participants will have the opportunity to lead their own workout for their peers. Overall, if you are interested in getting a good workout each day, having fun with your peers, and learning how to take care of yourself, this intersession is for you. Participants will need to be dressed in activity clothing.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

David Lundgren, Current IMSA Faculty or Staff

Mary Myers, Current IMSA Faculty or Staff

Jessica Amacher, Current IMSA Faculty or Staff

SESSION #: ON18

TITLE: Fundamentals of Computer Vision

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Students will get an introduction to the fundamentals of Computer Vision. We will learn how to extract features from images, process images, and classify images. To see these concepts in action, we will implement them in Python -- programming exercises will include making Snapchat-esque filters and playing a simple game with hand gestures!

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

CSI or basic Python knowledge, MI-2, understanding matrix multiplication.

PROGRAM FEES

None

FACILITATOR(S)

Spoorthi Jakka, Alumni IMSA Faculty or Staff

SESSION #: ON19

TITLE: Gene Titans: Techniques in Biotechnology

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Biotechnology is the exploitation of biological processes for industrial and other purposes, especially the genetic manipulation of microorganisms and DNA for the production of proteins such as antibodies, and other important biological compounds. In this intersession you will learn about the theory and practice of some of the techniques used in biotechnology. Techniques include transforming DNA into bacterial cells, growing the cells, harvesting and purifying the DNA, measuring the concentration of DNA, restriction enzyme digestion, electrophoresis, and more. The last day will conclude with presentations of everyone's results.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

\$10

FACILITATOR(S)

Angie Ahrendt, Current IMSA Faculty or Staff

SESSION #: ON20

TITLE: How to Disagree

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

The willingness to disagree with prevailing wisdom and majority opinion is both a right and responsibility of citizens of a democracy. Unfortunately, such disagreement is not always expressed constructively, especially when good role models are lacking. Many people find it easier to say nothing, and the most important topics are the least discussed.

Western society has created the structure of debate to allow people to disagree in a way that is reasoned, respectful, and thoughtful - a far cry from the spectacle of presidential "debates". Competitive debate often misses the greatest value of debate: to understand why you believe something to be right. In this class, students will learn to use the structure of debate to express and discuss unorthodox or unpopular opinions about even the most controversial topics - abortion, race, religion, politics, IMSA interviz policies - with courage and passion, but without vitriol, hate, or cancellation.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Peter Dong, Current IMSA Faculty or Staff

SESSION #: ON21

TITLE: I Laugh, You Laugh, We All Laugh!

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

In this intersession, each morning we'll watch comedy from different time periods and genres to think about and discuss what makes them funny. For example, what makes one person laugh when another might roll their eyes or even take offense? How is comedy written? What role does laughter have in human society and culture? In the afternoon, students will put what they've learned into action as they make the entire class laugh with their own comic productions following the genre of the day. Comedy examples for discussion will be introduced by both teachers and participants.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Joe Golab, Current IMSA Faculty or Staff

Paul Gaszak, Current IMSA Faculty or Staff

SESSION #: ON22

TITLE: IMSA.ai: Understanding Artificial Intelligence/Machine Learning Basics

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

A basic introduction to artificial intelligence and machine learning concepts. Students will be introduced to the fundamentals of data, Machine Learning Concepts, Real-World Applications, and the ethical implications of AI. Students will participate in several skills-building activities throughout the course and benefit from a special guest speaker on the final day.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

CSI

PROGRAM FEES

None

FACILITATOR(S)

Steve Goldblatt, Current IMSA Faculty or Staff

Rhea Shah, Current IMSA Student

Aria Barve, Current IMSA Student

SESSION #: ON23

TITLE: Independent Reading

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

Want to read more but there's never enough time? Now there is. Bring your own reading materials - fiction, nonfiction, history, poetry, graphic novels, almost anything - and spend a few hours each day reading. The only limitation is that your reading cannot be in preparation for a class or test. Research shows that independent reading – defined as “self-selected reading of a continuous text for a wide range of personal and social purposes” – enhances your reading comprehension ability, development of vocabulary, general knowledge, and empathy for others. In one study, students who frequently engaged in reading for pleasure scored higher in reading than peers who did not. When struggling readers engage in independent reading and receive opportunities to discuss books, they make gains in reading achievement. Independent reading is also good for your mental health – a British study in 2009 found that leisure reading can reduce stress by up to 68%.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Adam Kotlarczyk, Current IMSA Faculty or Staff

SESSION #: ON24

TITLE: Introduction to De Rham Theory

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

The calculus of differential forms provides a unifying framework with far-reaching consequences in geometry, topology, and physics. The fundamental theorem of calculus, as well as Stokes' and Gauss' theorems of vector calculus, can all be viewed as special cases of a single theorem about differential forms. Force fields, such as the electromagnetic field, are best formulated in terms of differential forms. The set of differential forms on a manifold gives rise to a differential graded algebra which can be used to construct one of the most important sets of invariants of a smooth manifold, called the de Rham cohomology groups, which were introduced by Georges de Rham in 1931. After reviewing the basics, we will define de Rham cohomology and prove its basic properties. We will then introduce the Mayer-Vietoris sequence and compute examples. After proving homotopy invariance of de Rham cohomology, we prove the celebrated de Rham theorem.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum

PREREQUISITES

AB II, BC II, or equivalent knowledge

PROGRAM FEES

None

FACILITATOR(S)

Anderson Trimm, Current IMSA Faculty or Staff

SESSION #: ON25

TITLE: Introduction to Quant Finance and Sales & Trading

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

Last summer, Citadel intern salaries were \$120 per hour - that is \$20,000 per month, or 240,000 per year. But, the acceptance rate was only .05%. In this course, you'll learn everything you need to know about breaking into the field of quantitative finance. Through a variety of lessons on markets, probability, and trading, we'll explore every part of the day in the life of a Citadel intern making \$120 per hour. We'll also explore a variety of games and puzzles which are often used by Quant firms, and end the competition with a trading competition in which each team will create a trading robot in Python and the winner will receive a nice prize.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional Development - Session provides explicit career-focused insights and applications, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Edward Zhang, Alumni IMSA Student

Daniel Ma, Alumni IMSA Student

Christo Ekimov, Alumni IMSA Student

SESSION #: ON26

TITLE: JHMC Question writing

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

IMSA's Mu Alpha Theta chapter sponsors the annual Junior High Math Contest (JHMC). This session will allow us time to write contest questions and start assembling them into the actual contests that the students will see. Come help MAO challenge the next crop of IMSA students!

CATEGORIES

Service Learning - Session provides an opportunity for students to support a community or organization

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Micah Fogel, Current IMSA Faculty or Staff

SESSION #: ON27

TITLE: Knots for Warmth and Enjoyment

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

This intersession will teach you how to knit and crochet. Have you ever thought about “making things”, but haven’t found a good time to actually “get started”? Or are you already a DIY lover, but haven’t been able to explore knitting or crochet? If so, this intersession is perfect for you. We will learn about basic knitting and crochet techniques, and then make a few items such as scarves, hats, and even stuffed animals and sweaters!

CATEGORIES

Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

Beginners only! Students sign up for this intersession should have little to no experience with knitting or crochet.

PROGRAM FEES

\$5 + cost of materials. Students may either acquire the materials separately, or pay a \$50 total program fee to have the materials provided for them.

FACILITATOR(S)

Lingyi Meng, Current IMSA Faculty or Staff

SESSION #: ON28

TITLE: LEGO MOC Masters: Nebulon-B Medical Frigate

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

This hands-on LEGO building experience will explore advanced LEGO building techniques and related terminology as well as the practice, community, and resources of LEGO MOCs (My Own Creations) through the construction of a UCS (Ultimate Collector Series)-style Nebulon-B Medical Frigate as seen at the end of The Empire Strikes Back. Participants will contribute to building a highly detailed, nearly 6000-piece scale model of a Star Wars ship using original visual instructions from LEGO MOC designer Mortesv. Time and bricks permitting, participants may also have the opportunity to design their own small LEGO MOC or mod (set modification) on their own or in collaboration with classmates.

CATEGORIES

Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

Participants should be experienced and ideally current LEGO builders.

PROGRAM FEES

None

FACILITATOR(S)

Michael Hancock, Current IMSA Faculty or Staff

SESSION #: ON29

TITLE: Machine Learning Application for Music

MODALITY: On-Site

DURATION: Three Hours, Day

DESCRIPTION

We will discuss how audio (or music) signal is converted into a form so that it can be used in Machine Learning applications. What libraries are available to convert sound into digital data. We will discuss how to extract audio features and how to use audio transformations.

We will discuss applications - Audio Classifications, Speech Recognition, Music Instrument Classification.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional

Development - Session provides explicit career-focused insights and applications

PREREQUISITES

Students should be familiar with Python.

PROGRAM FEES

None

FACILITATOR(S)

Phadmakar Patankar, Current IMSA Faculty or Staff

SESSION #: ON30

TITLE: Master and Commander: Naval Warfare during the Age of Sail

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

A tour de force of historical fiction, Patrick O’Brian’s 21-volume Aubrey-Maturin series offers readers an exhilarating account of life at sea during the Napoleonic Wars through the eyes of Royal Navy captain Jack Aubrey and surgeon/spy Stephen Maturin. Meticulously researched and deftly written, it weaves together the harrowing exploits of real-life officers like Thomas Cochrane with the harsh realities of life as an ordinary seaman to create a compelling narrative that hews close to the historical record. In this intersession, we will read the first novel in this series, *Master and Commander* (1969), and watch its film adaptation, *Master and Commander: The Far Side of the World* (2003). Directed by Peter Weir and starring Russell Crowe as Aubrey and Paul Bettany as Maturin, the film was initially overshadowed by Disney’s *Pirates of the Caribbean* franchise but has since become revered for its sensitive storytelling, remarkable detail, and impeccable accuracy. If you like sailing, military history, or just a great adventure story, then this intersession is for you!

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

Students will need to acquire materials prior to Intersession. All materials will cost approximately \$35 total, if purchased new.

FACILITATOR(S)

Daniel Collins, Alumni IMSA Student

Michael Hancock, Current IMSA Faculty or Staff

SESSION #: ON31

TITLE: Music Composition

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Budding composers will explore the craft of composition by writing their own pieces. Instruction in the class will emphasize the use of music theory to implement musical ideas, drawing on examples from a variety of genres, with particular emphasis on the interplay of harmony and counterpoint. Students will experience the entire compositional process, from initial sketches to performance, and will receive a recording of the class' compositions. Compositions can be written in any musical style and for any instrumentation.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

Students must have basic proficiency in an instrument (which may be voice) and should have knowledge of simple music theory, such as key signatures and scales.

PROGRAM FEES

None

FACILITATOR(S)

Peter Dong, Current IMSA Faculty or Staff

Daniel Collins, Alumni IMSA Student

SESSION #: ON32

TITLE: Personal Finance

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Personal Finance is aimed at empowering students to understand the impact of individual choices and future earnings, savings, and investing potential. Topics covered will include income, money management, spending, and credit, as well as saving and investing. Throughout this course, students will engage in activities such as crafting personal and household budgets, simulating the operation of checking and savings accounts, demonstrating proficiency in financial acumen, debt management, and credit utilization, as well as touching on insurance and tax systems. By the end of this course, participants will have acquired a foundational knowledge to guide them in making informed, personal financial choices.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Paul Rummelhoff, Current IMSA Faculty or Staff

SESSION #: ON33

TITLE: Polish for Beginners

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

The Chicagoland area is home to the biggest Polish diaspora. If you would like to learn some basic skills of communication in Polish, join us for this session. We will learn a traditional Polish dance, the Polonaise, and watch a classic Polish film during this session as well.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Marta Kaluza, Current IMSA Faculty or Staff

SESSION #: ON34

TITLE: Project Management Skills for Life

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

This intersession would be an introduction to Project Management skills for secondary education students. Curriculum has been developed by the Project Management Institute education foundation (PMIef) and will be adapted for a 4 day, 3 hr/day course. We will cover the basics of Project Management and learn how to apply these skills to school and everyday life. Students will participate in classroom exercises as well as coming up with their own examples of how to apply these skills in their daily life.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Jigar B Mehta, IMSA Partner / Guest

Julie Xia, IMSA Partner / Guest

SESSION #: ON35

TITLE: Shaping Up Geometry

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Is your geometry a little rusty? Did your geometry class get cut short due to COVID or other circumstances? Did you just forget too much of it? This is the place to brush up on the essentials for a smoother ride in your future MI and calculus coursework! We'll focus on some of the most highly used topics, including similar and congruent triangles, parallel lines and congruent angle pairs, and of course, basic trigonometry! Come improve your logical thinking skills, deductive reasoning, analytical reasoning, and problem-solving skills and be ready to roll for next semester and beyond.

CATEGORIES

Academic Support - Session provides academic support toward IMSA curriculum

PREREQUISITES

None; However, scores on the alternate part 2 of the placement test will be considered. Some sophomore students may be required to enroll based on their performance on the geometry portion, pending further discussion with the P.O. Other students are welco

PROGRAM FEES

None

FACILITATOR(S)

Janice Krouse, Current IMSA Faculty or Staff

SESSION #: ON36

TITLE: Spawn Points: Generating Historical Literacy through Video Game Play

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

According to cultural historian Johan Huizinga, the concept of “play” is both instinctual to the human species and foundational to the development of civilization. “Law and order, commerce and profit, craft and art, poetry, wisdom and science,” Huizinga once wrote, “All are rooted in the primeval soil of play.” As we play, we have fun, we learn, we develop, and we grow.

The American public absorbs a great deal of history simply by playing video games. During Intersession, we will play several games in depth (such as the newest Assassin’s Creed release) and assess their historical value. This premise leads to several questions, which we will aspire to answer: as they entertain, how do video games influence a player’s understanding of the past? How accurate are these perceptions? What types of history do game designers privilege? What do they leave out? How might future video games spawn deeper historical literacy?

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives

PREREQUISITES

Students will need access to a total of three PC games, one each from the following categories:

1. Assassin’s Creed series (one game total)
 - a. Assassin’s Creed Mirage (preferred) or one of the following titles...
 - b. Assassin’s Creed Valhalla, Assassin’s Creed Odyssey, or Assassin’s Creed Origins
2. Bioshock Infinite—required for all students (one game total)
3. Students Choice (one game total). Each student needs one additional game of their own choosing, with the following suggestions and caveats. First, consider your interests in both history and culture, and try to find a game that fits one or more of those interests. This might include a precise time period or specific historical event, and/or include specific characters based on gender, race, ethnicity, orientation, etc. Your first “assignment” for this class will be to pick a game and justify its inclusion in our curriculum. Some possible suggestions would include the following, but please be encouraged to choose a game outside of this list:
 - a. Red Dead Redemption II
 - b. Call of Duty series
 - c. Wolfenstein series
 - d. Mafia 3
 - e. Way of Samurai 4

- f. Civilization series
- g. 1979 Revolution: Black Friday

Students will also need a laptop computer, with the following minimum or recommended specs:

1. Minimum requirements (1080p at 30 frames per second)
 - a. Operating system Windows 10, Windows 11 (64-bit versions)
 - b. Processor AMD Ryzen 5 1600 @ 3.2 GHz, Intel Core i7-4790K @ 4.4 GHz (Intel Core i5-8400 @ 4.0 GHz for Intel Arc with ReBAR), or better
 - c. RAM 8 GB (running dual-channel mode)
 - d. Video card AMD Radeon RX 570 (4 GB), Intel Arc A380 (6 GB), NVIDIA GeForce GTX 1060 (6 GB), or better
 - e. Hard drive 40 GB available storage (SSD recommended)
 - f. DirectX version DirectX 12
2. Recommended requirements (1080p at 60 frames per second)
 - a. Operating system Windows 10, Windows 11 (64-bit versions)
 - b. Processor AMD Ryzen 5 3600 @ 4.2 GHz, Intel Core i7-8700K @ 4.6 GHz, or better
 - c. RAM 16 GB (running dual-channel mode)
 - d. Video card AMD Radeon RX 5600 XT (6 GB), Intel Arc A750 (8 GB), NVIDIA GeForce GTX 1660 Ti (6 GB), or better
 - e. Hard drive 40 GB available storage (SSD recommended)
 - f. DirectX version DirectX 12

Laptop models of video cards may work, as long as their performance is similar to the minimum requirements.

Students will also need headphones and/or ear buds for noise moderation in class.

PROGRAM FEES

None, but students will need access to the resources listed above.

FACILITATOR(S)

Shawn Bailey, Current IMSA Faculty or Staff

Shane Cowsert, Current IMSA Faculty or Staff

Ethan Castro, Current IMSA Faculty or Staff

SESSION #: ON37

TITLE: STEMbassadors 101: Putting the STEM in Saturdays

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

Are you an enthusiastic lover of STEM? Do you prefer to lead, rather than follow? Do you love learning and working with younger kids? Or maybe you've wanted to join STEMbassadors (a STEM educational extracurricular program at IMSA) for a while, but your schedule just won't allow it? Then this is the intersession for you! Participants will take a deep dive into inquiry, instruction methods, and classroom management during this half-day course. By the end of the week, all participants will be ready to teach a STEM Program for students in grades 3-6! (Please note, by signing up for this intersession, you are also committing to teaching or group leading at an actual Saturday STEM Program, "Modeling Mayhem", scheduled on Saturday, January 27th, from approximately 8:00 am - 1:00 pm. Service hours will be awarded for this!) A prerequisite meeting (October/November, exact dates TBA) is required for any participants of this intersession.

CATEGORIES

Service Learning - Session provides an opportunity for students to support a community or organization

PREREQUISITES

Students interested in this session must attend one of two informational sessions during a Support & Engagement period. Exact dates for these sessions are TBA.

PROGRAM FEES

None

FACILITATOR(S)

Megan Rinehart, Current IMSA Faculty or Staff

Elaine Wu, Current IMSA Faculty or Staff

SESSION #: ON38

TITLE: Studio Photography!

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Participants will be introduced to studio photography and studio lighting techniques. We will also teach you how to set up sweeps and how to creatively stage a photoshoot set. Participants will get hands on experience, and learn basic editing and touch up skills. The session will allow students to create a portfolio of work.

CATEGORIES

Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Bill McGrail, Current IMSA Faculty or Staff

Evelyn Cunneen, Current IMSA Student

SESSION #: ON39

TITLE: TALENT INC Intersession

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

INC Intersession is a week-long introductory course for students unable to participate in INC. It provides the same content as INC in a faster-paced, condensed manner. The introductory course consists of content-based lectures and interactive activities to teach all of the entrepreneurial concepts needed to develop a business idea. IMSA emphasizes an entrepreneurial spirit in its student body and provides many opportunities at IN2 for students to advance their startups. However, IMSA does not have resources to guide students to start their business from scratch. Realizing this, Total Applied Learning for ENTrepreneurs (TALENT), a student-led co-curricular program sponsored by IN2, developed a curriculum for three separate programs. INC is the first of this series, INC Intersession is the second, and both are prerequisites for the second-semester program, THINK.

CATEGORIES

Academic Support - Session provides academic support toward IMSA curriculum, Professional

Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Steve Goldblatt, Current IMSA Faculty or Staff

Faizaan Shaikh, Current IMSA Student

Danica Sun, Current IMSA Student

SESSION #: ON40

TITLE: Teaching Your Computer to Play Games

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

One of the most natural applications of artificial intelligence is playing games, since their clear rules and simple win conditions are much more straightforward than more complicated tasks like facial recognition or natural language processing. In short, computers are really good at games. In this class, students will learn some basic AI techniques for simple games and will develop algorithms to compete against each other - because both computers and humans like to win.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

Students should be familiar with basic programming in Python at the level of CSI.

PROGRAM FEES

None

FACILITATOR(S)

Peter Dong, Current IMSA Faculty or Staff

SESSION #: ON41

TITLE: The Future of Astronomy

MODALITY: On-Site

DURATION: One Hour, Day

DESCRIPTION

The Future of Astronomy will detail current and proposed missions including observational as well as return missions. We will talk about the direction that research and funding is taking and who the managers of these programs are. We will discuss a futurist view of astronomy as well as what questions remain to be answered. Finally we will discuss citizen science, what equipment is required and how amateurs can add to the body of research currently ongoing.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Sean Cunneen, Current IMSA Parent

Evelyn Cunneen, Current IMSA Student

SESSION #: ON42

TITLE: The Great IMSA Bake-Off

MODALITY: On-Site

DURATION: Three Hours, Day

DESCRIPTION

Like Iron Chef, but at IMSA. Your team will be presented with a bag of ingredients and you will have two hours to prepare a delicious dish made from those ingredients. No recipes, no Internet, no ChatGPT - just your team and your wits against the kitchen. Present your culinary creations to an esteemed panel of judges to see who can claim the coveted title of IMSA's top chef!

CATEGORIES

Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

10

FACILITATOR(S)

Peter Dong, Current IMSA Faculty or Staff

SESSION #: ON43

TITLE: The Logic of Sense: Language, Existence, Time, and Destruction.

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

What transforms the noises coming from your mouth into meaningful language? Philosophers have tried to answer this question for millennia. 20th century philosopher Gilles Deleuze was one of these; and in tackling this problem, he constructed a worldview that describes not only language, but also the very basis of existence itself.

And it seems to be self-destructive: if you follow his path, you end up in a wordless place, unable to say or do anything. What is philosophy when you can't philosophize?

We'll discuss Deleuze's work, why science is not enough to explain language, and various perspectives in the philosophy of language. We will follow Deleuze's yellow brick road down to its most destructive ends. Then, we'll ask: where do we go from here?

This is a chance for you to be introduced to philosophy in an open, playful, and low-stakes setting. We'll sit, chat, explore, and create together.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

Juniors / Seniors only.

PROGRAM FEES

None

FACILITATOR(S)

Yugan Sakthi, Alumni IMSA Student

SESSION #: ON44

TITLE: The Pulsar Search Collaboratory - An Introduction to Astronomy Research

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

Have you ever wondered how one does research in astronomy? Is it possible for high school students to engage in astronomical research? This intersession will introduce students to various astronomical topics, including exo-planets, pulsars, and other aspects of stellar evolution. We also will explore a few methods of how research is conducted in these fields, including explicit methods in pulsar research. Then we will engage with the Pulsar Search Collaboratory, searching for pulsars from a treasure trove of data that has yet to be analyzed. No previous knowledge is required and students do not need to pursue research in this realm. Yet, if one is interested in doing so, this intersession might be a useful introduction to the field.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Matthew McCutcheon, Current IMSA Faculty or Staff

SESSION #: ON45

TITLE: Trick-Taking Card Games

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

We will play Euchre, Spades, Oh Hell and possibly Whist. All games are trick taking which include counting cards and calculating probabilities. They will require strategical and logical thinking. Students will be active in learning and playing games. We will discuss and employ strategies specific to these games but are common to any trick taking game.

CATEGORIES

Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Evan Brummet, Current IMSA Faculty or Staff

SESSION #: ON46

TITLE: Wargaming and Understanding the Mechanics of Conflict.

MODALITY: On-Site

DURATION: Part-Time

DESCRIPTION

When you think of the notion of conflict, do you ever wonder the mechanics of how battles or wars play out? What physical, technological and leadership elements are crucial? Why did one side lose and the other win? This intersession will allow students to engage in a specific (or a couple of) simulation, “wargame,” of their choosing. There are a few dozen to choose from. Games, playing partners and rules will be assigned prior to Winter Break. Students will engage in gaming in the afternoon for the two weeks of Intersession. The games are well tested and time honored simulations of the “hex and chit” sort, and will be played on table tops (https://en.wikipedia.org/wiki/Board_wargame). If there is student interest we can also engage in Napoleonic miniatures battles (come ask me). The instructor will be available Intersession mornings to discuss and explain games as needed.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Lee W. Eysturlid, Current IMSA Faculty or Staff

SESSION #: ON47

TITLE: Who Wants to be a Millionaire?

MODALITY: On-Site

DURATION: Quarter-Time

DESCRIPTION

During this intersession we will touch on the basics of saving, investing, compounding, stocks, bonds, retirement account options, use of credit, mortgage application, and much, much more! Furthermore I have partnered with banking and brokerage representatives who will be providing presentations in their respective areas. Finally I will be giving out some investment and credit information for the students to present back their plan on how they would manage these investment and credit situations and their reasons why.

CATEGORIES

Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

John Wood, IMSA Partner / Guest

SESSION #: ON48

TITLE: Film Production

MODALITY: On-Site

DURATION: Full-Time

DESCRIPTION

An in-depth analysis of the methods behind film production. Using a mix of both discussion-based seminars and hands-on creation, this intersession will culminate with small groups of students writing, filming, and editing their own short films. Over the course of two weeks students will learn to create short films through viewing and discussing examples as well as using ITMC resources and studio space to develop practical skills in the art of filmmaking.

CATEGORIES

Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Bill McGrail, Current IMSA Faculty or Staff

Vincent Singleton, Current IMSA Parent

Shawn Crimmins, Current IMSA Student

Carter Poskozim, Current IMSA Student

SESSION #: V1

TITLE: Brand Marketing: How Do Brands Advertise?

MODALITY: Virtual

DURATION: One Hour, Evening

DESCRIPTION

The session will introduce Marketing 101 frameworks such as the 5 C's and 4Ps. It will also introduce students to the process that brands utilize to create an advertisement. We will also review holistically campaigns that include TV, digital and social ads and analyze them per the frameworks taught. Students will have exposure to real brand campaigns, both good and bad.

CATEGORIES

Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Kunjal Dharia, Current IMSA Parent

SESSION #: V2

TITLE: Disease Detectives: A Brief Introduction to Epidemiology

MODALITY: Virtual

DURATION: Quarter-Time

DESCRIPTION

Due to the COVID-19 pandemic, epidemiology has gone from a niche field to a dinner conversation topic. But there is so much more to epidemiology than COVID-19. How can we control the spread of antimicrobial resistance? Where did an outbreak of foodborne illness originate? How will changing climate influence the spread of vector-borne disease? All these questions and more are investigated by epidemiologists (AKA disease detectives). Epidemiology is the study of incidence, distribution, causes, and control of diseases. A highly interdisciplinary field, it combines biology, public health, medicine, statistics, and more. In this intersession, you will take a deep dive into epidemiology: explore the history of infectious diseases, discover what epidemiologists do, learn how to apply key concepts, and more!

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Nikki Mastrud, Alumni IMSA Student

SESSION #: V3

TITLE: Here's the Story: An Introduction Into How Media Works

MODALITY: Virtual

DURATION: One Hour, Day

DESCRIPTION

At school, in our social lives, among family members and friends, media plays a prominent role in our everyday lives, and in ways we might not even recognize. This session will examine the pressing issues in media and society today, such as privacy, globalization and convergence. These issues are examined through a lens of media literacy, with particular attention to the responsibilities we have as both consumers and producers of media in all its forms.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, Socioemotional - Session supports student social and emotional well-being

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Jim Rodenbush, Current IMSA Parent

SESSION #: V4

TITLE: Introduction to Quantum Computing

MODALITY: Virtual

DURATION: Quarter-Time

DESCRIPTION

Learn about quantum computing from a professional working on building one! Participants will get an introduction to the concepts behind quantum computing. They will learn what a qubit is, how it differs from a classical bit, and what the quantum gate model is. Students will dive into creating their own quantum circuits. We will survey the most well-known quantum algorithms and explore several ways people have attempted to build a quantum device.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum, Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

Matrices and matrix multiplication (MI-2 or equivalent)

PROGRAM FEES

None

FACILITATOR(S)

Doug Strain, Alumni IMSA Student

SESSION #: V5

TITLE: Personal Finance: Investing in Yourself, Making Sense Out of Cents

MODALITY: Virtual

DURATION: Quarter-Time

DESCRIPTION

Personal Finance teaches you how to survive and thrive in the 21st century, with core competencies developed from the national standards for K-12 financial education. We dive into the real world of money, including jobs and paychecks in high school, career planning, budgeting, managing a checking account, choosing and paying for college, researching alternatives to college, renting your first apartment, buying and caring for your vehicle, managing credit, avoiding common financial mistakes, saving for the future, investing for retirement, purchasing insurance for your most valuable assets, and more. This course utilizes engaging simulations and projects so you can practice the skills you'll need to manage your personal finances throughout your life.

CATEGORIES

Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives,
Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Donna Wang Su, Current IMSA Parent

SESSION #: L1

TITLE: Coffee & Culture - Innovation from Bean to Cup

MODALITY: Local

DURATION: Part-Time

DESCRIPTION

Students will have the opportunity to learn about innovations around the coffee industry through four different modules: (1) History & Culture (2) Roasting Techniques (3) Coffee across the STEM fields and (4) Brewing Innovations. Each day students will have the opportunity to learn through hands-on engagement. Activities will range from assisting with roasting to developing different blends of brewed coffee to exploring how engineering principles can be applied to develop new innovations.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional Development - Session provides explicit career-focused insights and applications, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

None

PROGRAM FEES

\$50

FACILITATOR(S)

Andrew Reif, Current IMSA Faculty or Staff

Steve Goldblatt, Current IMSA Faculty or Staff

SESSION #: L2

TITLE: Designing IMSA's AI Future

MODALITY: Local

DURATION: Part-Time

DESCRIPTION

Can you imagine what IMSA needs for our evolving IMSA AI Center? This small team of curious and future-forward IMSA students collaborates with IMSA staff and faculty at IN2 to research current AI centers, startups, programs, and technology. Students work in teams to design programs, physical spaces, and technology and will present their findings with recommendations at the end of the week to the IMSA community. This AI Intersession spends three days at IN2 and one day off campus to visit Chicago area AI hubs, centers, and startups to inspire our prototyping at IMSA.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Academic Support - Session provides academic support toward IMSA curriculum, Professional Development - Session provides explicit career-focused insights and applications

PREREQUISITES

None

PROGRAM FEES

None

FACILITATOR(S)

Britta McKenna, Current IMSA Faculty or Staff

Sue Fricano, Current IMSA Faculty or Staff

Phadmakar Patankar, Current IMSA Faculty or Staff

SESSION #: L3

TITLE: Dishing out culture One: Food traditions from the African Diaspora

MODALITY: Local

DURATION: Part-Time

DESCRIPTION

Students will spend classroom time each day exploring the food traditions of a selected culture, ethnicity or geographic region through research, discussion and multi-media presentations. Special emphasis will be on how food tradition intersect with religion, ritual and cultural heritage, poverty and nutrition, and regional availability of ingredients. Students will also describe threats to the culinary tradition they are studying, such as climate change, geopolitical dynamics or population decline. Then students will travel to a Chicagoland area restaurant and have a traditional meal in the style of the cuisine they have studied and engage in a group reflection about their experiences. At the end of the seminar, students will create a group report in a format of their choice (multi-media presentation, brief research paper, or other form) comparing and contrasting the culinary traditions of the cultures that were studied in the seminar.

CATEGORIES

Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

None

PROGRAM FEES

\$80

FACILITATOR(S)

Scott Campbell, Current IMSA Faculty or Staff

Anita White, Current IMSA Faculty or Staff

SESSION #: L4

TITLE: Dishing out culture Two: Food traditions from the Asian Diaspora

MODALITY: Local

DURATION: Part-Time

DESCRIPTION

Students will spend classroom time each day exploring the food traditions of a selected culture, ethnicity or geographic region through research, discussion and multi-media presentations. Special emphasis will be on how food tradition intersect with religion, ritual and cultural heritage, poverty and nutrition, and regional availability of ingredients. Students will also describe threats to the culinary tradition they are studying, such as climate change, geopolitical dynamics or population decline. Then students will travel to a Chicagoland area restaurant and have a traditional meal in the style of the cuisine they have studied and engage in a group reflection about their experiences. At the end of the seminar, students will create a group report in a format of their choice (multi-media presentation, brief research paper, or other form) comparing and contrasting the culinary traditions of the cultures that were studied in the seminar.

CATEGORIES

Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

None

PROGRAM FEES

\$80

FACILITATOR(S)

Scott Campbell, Current IMSA Faculty or Staff

Anita White, Current IMSA Faculty or Staff

SESSION #: L5

TITLE: Feast Internationally...locally!

MODALITY: Local

DURATION: Part-Time

DESCRIPTION

"Food is everything we are. It is an extension of a nationalist feeling, ethnic feeling, your personal history, your province, your region, your tribe, your grandma. It's inseparable from those from the get-go." Anthony Bourdain Let's "break bread" together. We will visit three international restaurants, learn more about their culture from the chefs, sample the cuisine and learn from each other. On one of the three days, we will take the Metra train to Chicago. On the last day, students will share about their culture and family background. This will be achieved through conversation and bringing a personal artifact and/or creating a visual aid.

CATEGORIES

Diversity, Equity, and Inclusion - Session promotes DEI values and perspectives, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

None

PROGRAM FEES

\$80

FACILITATOR(S)

Amy Keck, Current IMSA Faculty or Staff

Kara Molenhouse, Current IMSA Faculty or Staff

SESSION #: L6

TITLE: Finding Art

MODALITY: Local

DURATION: Part-Time

DESCRIPTION

Sometimes, people think art involves creation from nothing, but many modern and contemporary artists, writers, and musicians find and repurpose what already exists. In this Intersession, students will learn to exalt and elevate the everyday into works of art that challenge accepted understandings of beauty, representation, perspective, and craft. We'll explore artists, writers, and musicians who have adopted similar strategies—and consider the creative and ethical implications. The course will be both analytical and creative. From Duchamp's readymades, to Warhol's pop art, to sampling in music, to poets' strategies of appropriation, to recirculating internet memes; we'll consider the meaning of art that is found and transformed, or even simply found. Beyond discussion, we'll take field trips to a flea market to find potential repurposed material for our own artistic creations and an art museum to see famous examples of the concepts we are studying. In the second week of Intersession, students will create their own found art pieces to be included in an art exhibit displayed in the IRC.

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines

PREREQUISITES

None

PROGRAM FEES

\$85

FACILITATOR(S)

Eric Rettberg, Current IMSA Faculty or Staff

Joe Marshall, Current IMSA Faculty or Staff

SESSION #: L7

TITLE: Certified Nursing Assistant Program

MODALITY: On-Campus / Local

DURATION: Full-Time; program will have components before, during, AND after Intersession

DESCRIPTION

"This Certified Nursing Assistant (CNA) course is an independent pilot program that prepares the student to provide basic patient care under the supervision of a licensed nurse. The first year will prepare the student for the State of Illinois CNA test. After passing the Illinois CNA exam, the second year, if applicable, the student will be eligible for an internship for service hours. This course is a pass/fail course and will be indicated as such on the student's official transcript. Employment opportunities for CNAs primarily include hospitals, home care, assisted living facilities, and long-term care facilities.

The CNA will have required components before, during, AND after Intersession.

Interested students should select this program during the Intersession request process AND complete this form: <https://forms.gle/AjociyHjeSpDHYfDA>"

CATEGORIES

Academic - Session provides additional insight and inquiry into academic disciplines, Professional Development - Session provides explicit career-focused insights and applications, UN Sustainable Development Goals - Session relates to the UN SDGs and/or IMSA's commitment to the UN SDGs.

PREREQUISITES

1. Junior / Senior
2. 16 years of age or older
3. Academic good standing.
4. Excellent attendance records.
5. Application for admittance.

Additional requirements will be detailed by the instructor. "

PROGRAM FEES

Fees > \$100. Over the course of the program, students will need to purchase some materials (such as scrubs, stethoscope), pay for state testing and CPR certification, and acquire health records (physical exam, TB test). Payment deadlines may differ from other Intersession programs due to the program's duration.

FACILITATOR(S)

Nurse Angie Shoener, Current IMSA Faculty or Staff