

INTERSESSION 2016

CATALOG OF OFFERINGS

NOTE ON INTERESESSION COSTS:

Fee waivers and/or reduction in costs for sessions are available to students who are eligible for financial aid. Students with demonstrated need (those paying a reduced IMSA student fee or otherwise affected by extenuating circumstances as determined by the Principal) are eligible for aid to offset intersession costs. If you feel you qualify, please stop by the Principal's Office and speak with Colleen Geihm.

CLOSED SESSIONS are not open for enrollment at this time. These sessions were previously offered to eligible students (e.g. some sessions were restricted due to stated prerequisites). **Students participating in a CLOSED SESSION do not need to complete the online registration form.**

The following intersession experience will be required for some students. Students will be notified of required participation prior to Intersession week. This experience will not be listed as a choice for students on the intersession request form, but is offered in the catalog for informational purposes only.

Mathematics Support

Part time Morning

This session is designed to help students identify factors that are impeding their mathematical success. We will work to identify and support areas of weakness (Mathematical content needs will be individually assessed and addressed), provide opportunities for students to have fun in math, and help students formulate a written plan of study habits and strategies that can be monitored for effectiveness in the upcoming semester/course.

Prerequisite(s) • Any student who earned a C- or D in Geometry, MI1/2, MI2, MI3, or a D in MI4 • Any student who earned a C in these courses will be evaluated case-by-case for possible requirement to take this intersession.

Note: A student may be moved out of another session into this one if the student's grade drops to the aforementioned level between the time that selection for this intersession is made and the end of the semester.

Cost(s) No Cost

Janice Krouse, IMSA Faculty krouse@imsa.edu

Tina Loos, IMSA Faculty cloos@imsa.edu

Don Porzio, IMSA Faculty dporzio@imsa.edu

FULL TIME SESSIONS, Morning / Afternoon
8:30 AM – 11:30 AM, 1:00 PM – 4:00 PM

Robotics Engineering; Designing and Building a Competitive Robot for FRC

Full time Morning/Afternoon

The FIRST Robotics Competition (FRC) is an annual international competition where IMSA partners with mentors (professional Caterpillar engineers, alumni, and others) 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. They will also document the build process, design a website, create animations, and create a video for FRC. Students are encouraged to participate in the rest of the competition work that occurs in the five weeks following Intersession. Interested students are invited to attend the regional competition held in Chicago and, if our team qualifies, to the championship held annually in St. Louis, MO.

Prerequisite(s) None outside of a willingness to learn about robotics and the design and build process.

Cost(s) No Cost

Bud Bergie, IMSA Staff lbergie@imsa.edu

Pat Patankar, IMSA Faculty ppatankar@imsa.edu

Mark Carlson, IMSA Faculty mcarlson@imsa.edu

Lifeguarding

Full time Morning/Afternoon

The lifeguarding class is a certification program through the American Red Cross for those students at least 15 years of age on or before the last scheduled session, and wishing to be lifeguards at summer pools or at IMSA for work service.

Preference will be given to sophomores and juniors to increase the number of students available to serve as lifeguards for Open Swim.

Prerequisite(s) Students must be able to complete these 3 tests on the first day of class. There are three swimming pre-requisites for this course which all students must successfully complete the first class session. They are: 1. Swim 300 yards continuously demonstrating breath control and rhythmic breathing. Candidates may swim using the front crawl, breaststroke or a combination of both but swimming on the back or side is not allowed. Must demonstrate the ability to swim front crawl and breaststroke. (Swim Goggles ARE permitted for this portion) 2. Tread water for 2 minutes using only the legs. Candidates should place their hands under the armpits. 3. Timed Event: Swim 20 yards using front crawl or breaststroke, surface dive to a depth of 7-10 feet, retrieve a 10 pound object, return to the surface, and swim 20 yards back to the starting point with the object. Exit the pool without using steps or ladder. Timed event must be completed in 1 minute 40 seconds or less. (Swim Goggles are NOT Permitted for this portion)

Cost(s) \$35 ARC fee per student.

William Gentzler, IMSA Faculty wgentzler@imsa.edu

Pursuing Social, Racial, and Economic Justice in the United States

Full time Morning/Afternoon

No matter the work that an IMSA student does in their future, it will have a direct effect on social, racial, and economic issues. Students working in the business world will have the opportunity to work towards economic equality, or work to further inequalities in society. Students working in engineering can work to increase environmental and social justice through their design, or inadvertently further global climate change and social rifts. Students working in medicine and research can approach their work with an understanding of social, cultural, and economic differences, or with a homogeneous understanding of the human experience. Even the daily lives of students after graduating will require a broad, nuanced cultural understanding of issues of race and economics to navigate their industry and political spheres. Issues as varied as cost of living, public transit, educational opportunities, civic participation, and even groceries should not be accepted with ignorance and presumption, and not taken just with thoughtfulness and empathy, but with an understanding that one's social and economic condition is dependent on the social and economic condition of all. This intersession is meant for any student, from the student who wants to engage in political advocacy to the student who just wants to broaden their understanding and engagement with others. Course content will be tailored to the interests of the students involved and will provide practical routes to utilize and embrace these issues in everyday life. The intersession will have required readings and participation, and will be a personal and emotional experience for many. It will not force opinions, instead relying on self- and peer discovery.

Prerequisite(s) A commitment to learning - this won't be an "easy" intersession. Time will be set aside each day for independent reading and journaling; however, if sessions run long, students may be expected to do between 30 minutes and an hour of work each evening outside of the session.

Cost(s) \$15 per student for lunches.

Lucas Delort, IMSA Class of 2009 delortl@wustl.edu

Adrienne Coleman, IMSA Staff acoleman@imsa.edu

Car Loans and Commodity Swaps: An Introduction to Finance

Full time Morning/Afternoon

"Risk comes from not knowing what you're doing" - Warren Buffett

We live in a world run by the precepts of capitalism, in which immense power is accumulated in the hands of those who understand and control the flow of capital (banks, corporations, global financial institutions). It is thus very important to have at least a basic understanding of finance. And yet, most people's lack of financial education leaves them open to making sub-optimal decisions, or often worse, getting preyed on by those with greater know-how. This intersession attempts to impart a very basic understanding of various financial instruments (stocks, bonds, options, futures, swaps) and tries to serve as an introduction to certain personal-finance concepts (time value of capital, loans, opportunity costs, portfolio theory, interest rates). There will be minimal outside reading, but students will be expected to pay attention in class.

Prerequisite(s) None

Cost(s) No Cost

Saarthak Gupta, IMSA Class of 2012 sgupta@deepsprings.edu

Micah Fogel, IMSA Faculty fogel@imsa.edu

So You Think You Want to Be a Doctor?

Full time Morning/Afternoon

Through this week-long Intersession held at Rush University Medical Center in Chicago, students will learn about the career of a physician, including what medical school is like, what the training and practice is like, as well as gain fundamental basic science knowledge and physical exam skills. Students will have the opportunity to interact with medical students and physicians throughout the week.

Prerequisite(s) Must be a junior or senior and not have previously attended this Intersession

Cost(s) None

Isolina Rossi, IMSA Class of 2010 rossi@rush.edu

Sharon Gates, RUSH Advisor

Mark Kammrath, IMSA Faculty mkammrath@imsa.edu

Maria Atienza-Gabas, IMSA Faculty mgabas@imsa.edu

Chicago Museums and Architecture Tour

Full time Morning/Afternoon

Prepare for a week of excursions into Chicago where you will visit some of the world's finest museums, come to appreciate the city's architectural legacy, and come into contact with diverse people and distant lands. In addition to walking indoor halls graced by antiquities, this intersession requires walking outdoors in the middle of winter in Chicago.

Prerequisite(s) Students who fail to dress properly for walking in the middle of winter in Chicago -- coats, hats, gloves, proper shoes -- will not be allowed to get on the bus.

Cost(s) \$40 per student to cover public transportation. Students should also bring spending money.

Eric Smith, IMSA Faculty esmith@imsa.edu

Tracy Townsend, IMSA Faculty ttownse@imsa.edu

Anna Sidwell, IMSA Faculty asidwell@imsa.edu

Agents of Positive Change: Developing Global Citizens in the IMSA Bubble

Full time Morning/Afternoon

You are living in one of the most exciting times in recorded history. Never before has the human species been more interconnected technologically or polarized philosophically. Never before has the population of Earth had such widespread access to scientific and sociological data, nor has it been educated enough to make use of such data. Never before has the marginalized had such an equitable opportunity to share their story and inspire others to action. If you are interested in learning to look at the world through a different lens, learn how to function through the framework of the future, or would just like an opportunity to share your own story please consider learning how to become an Agent of Positive Change.

Prerequisite(s) Willingness to reflect deeply, discover themselves, and explore the world outside. Students should bring their laptops to class each day.

Cost(s) None

Derek Lough, IMSA Staff and IMSA Class of 2005 dlough@imsa.edu

IMSA-PTHS Student Exchange-CLOSED SESSION

Full time Morning/Afternoon

Intersession coincides with the second week of the three-week IMSA-PTHS Student Exchange, in which IMSA students host peers from St. Petersburg's Lyceum Physical-Technical High School. During Intersession IMSA and PTHS students will participate in several intersessions, tour the Chicagoland area (Argonne and Fermilab and Chicago museums), and experience the richness of residential life at IMSA.

Prerequisite(s) This intersession is limited to pre-selected students enrolled in Russian 2 or Russian 3.

Cost(s) None

Paavo Husen, IMSA Faculty paavo@imsa.edu

Sovereign of the Seas: The Rivalry for the World's Oceans, 1580-1989

Full time Morning/Afternoon

This intersession will examine the global competition for naval power from the Spanish Armada to the fall of the Soviet Union. By means of simulation games, readings, films, and a possible field trip to the Museum of Science and Industry, the students will learn the political, diplomatic, and technological impact of this rivalry on World History.

Prerequisite(s) None

Cost(s) None

Claiborne Skinner, IMSA Faculty skinner@imsa.edu

Straight Outta IMSA

Full time Morning/Afternoon

Music is one of the most powerful creative means of expression, and holds the power to cheer, inspire, and unite masses of people. Music videos extend this capacity, adding another dimension of creativity. The ability to create an original song and music video to convey those ideas widens the window of possibilities for self-expression and story-telling. This intersession course will include learning how to storyboard, direct live video, compose a story, and write and record an original song as well as the accompanying beat. By the end of the course, students will have written, composed, and recorded their own song about IMSA and produced a music video to convey to friends, family and even outreach to the IMSA community.

Prerequisite(s) Basic music theory and composition skills are recommended.

Cost(s) None

Rakesh Chatrath, Current IMSA Student rchatrath@imsa.edu

Anna Shabayev, Current IMSA Student

Luke Morrical, Current IMSA Student

Justin Orr, Current IMSA Student

Derek Lubecke, IMSA Class of 2015

Michelle Meas, IMSA Class of 2015

Bill McGrail, IMSA Staff wmcgl@imsa.edu

Martial Arts Training Camp

Full time Morning/Afternoon

This Intersession is designed for anyone with an interest in martial arts, regardless of previous experience. While the course will focus primarily on teaching the techniques and history of Matsubayashi Shorin-Ryu, techniques and ideas from other styles of martial arts may be included. Traditional techniques, kata (traditional set patterns of movements), kumite (sparring), and basic self-defense will be taught. Examples of the martial arts in movies will also be explored and discussed. Additionally, there will be a self-defense seminar held at IMSA by Sensei Wyman Clark, 2nd degree black belt, and an optional dinner outing. The Intersession will conclude with a promotion test and friendly tournament.

Prerequisite(s) Although no previous experience in martial arts is necessary, students must have a basic level of physical endurance in order to complete the workouts and exercises each morning. Additionally, students will be required to wear a traditional white uniform to the classes, which will be available for purchase prior to the start of intersession. The costs associated with this Intersession will be: \$35.00 for a traditional, white uniform (mandatory, unless the student owns one), \$3.00 for a mouth guard, \$8 for a cup & supporter (men only), and a \$20.00 equipment fee (mandatory).

Cost(s) \$58.00 per female participant and \$66.00 per male participant.

Cynthia Nguyen Dang, IMSA Class of 2003 karatekid85@gmail.com

David Evenson, IMSA Staff drdave@imsa.edu

**PART TIME SESSIONS, Morning
8:30 AM – 11:30 AM**

Beginning European Knitting

Part time Morning

Do you feel stressed thinking about the college application process? Do you want to learn how to relax? Here is your chance! Sign up for the Beginning European Knitting intersession to learn basic knitting skills in the European (or

"continental") way. You also will learn how to read and follow knitting patterns and by the end of the intersession you will be able to knit a scarf for your favorite CAC or a teacher!

Prerequisite(s) This intersession is open only to NON-experienced knitters. Knitters who know how to knit in the American way may not sign up. Prior to the intersession, the participants must purchase knitting needles (sizes 5, 6, or 7) and a skein of yarn that matches the size of the needles. Both are available at any craft store for about \$10.00. Please bring needles and yarn to the first session.

Cost(s) \$10 per student.

Julia Husen, IMSA Staff ura@imsa.edu

The Epic of the Iliad

Part time Morning

The Iliad is the greatest of the epic poems in Western Civilization, and is, perhaps, one of the top three most renowned pieces of literature ever. References are made using it constantly, and its main character - Achilles - lives on with us today. But have you actually read it? This intersession will engage students in reading and understanding the literary and historical elements of the poem with an in-depth look at the text. We will also look at some of the other "Homeric" cycle stories that speak to the start and end of the Trojan war and talk briefly about whether there even was a war. Taking this intersession means reading the entire Iliad.

Prerequisite(s) Students will have to attend a single, mandatory pre-Winter break meeting to discuss the needed text and readings for the session.

Cost(s) None

Lee Eysturlid, IMSA Faculty leysturl@imsa.edu

Leah Kind, IMSA Faculty lkind@imsa.edu

Zombology 101

Part time Morning

Have you ever wondered if you could survive the zombie apocalypse? How fast do they move? How does a zombie spread its infection? Learn the answers to these questions and more in Zombology 101. This intersession will explore the cultural and scientific realities surrounding the creature known as "the zombie."

Prerequisite(s) None

Cost(s) None

Crystal Randall, IMSA Faculty crandall@imsa.edu

Michael Dean, IMSA Faculty mdean@imsa.edu

So You Want to be a CEO

Part time Morning

Learn how today's top-performing companies work and what you need to know to manage and run one. Using real business case scenarios, explore concepts of complexity in systems through simulations, discussions and inquiry supported by applied mathematical tools (static, dynamic, difference and stochastic equations). As a CEO in this experience, optimize your business for maximum performance.

Prerequisite(s) Recommended for TALENT juniors and seniors.

Cost(s) None

Moises Goldman, Outside Advisor

Carl Heine, IMSA Staff heine@imsa.edu

Mathematica (software)

Part time Morning

Make great graphs! Solve difficult equations! Animations! Data analysis! Calculus! Chemical molecules! Music! Maps! And lots more! Mathematica is a large software program that is widely used for many purposes. We'll start at the beginning with tutorials and the help system, but participants may work on their own projects, depending on their abilities and interests. No previous experience with Mathematica or with other programming is required.

Prerequisite(s) Completion of MI 3, MI 4 helpful.

Cost(s) None

Ruth Dover, IMSA Faculty dover@imsa.edu

Resuscitation Science and American Red Cross First Aid, CPR, & AED Certification

Part time Morning

This intersession is a first aid and cardiopulmonary resuscitation (CPR) training program to prepare individuals to respond to injuries and sudden illnesses that may arise and also to assist in their understanding of the physiology behind CPR. This program will give individuals the knowledge and skills necessary to prevent, recognize and provide basic care for breathing emergencies and cardiac emergencies, perform CPR and use an automated external defibrillator (AED) for infants, children and adults until advanced medical personnel arrive and take over.

Prerequisite(s) None

Cost(s) \$50 per student. Fees cover certification and supplies.

Mary Myers, IMSA Faculty mmyers@imsa.edu

Sowmya Anjur, IMSA Faculty sanjur@imsa.edu

Cutting Edge Biotechnology

Part time Morning

In September of 2015, science news exploded with the new developments in how we are able to modify specific genes in living cells down to a single base change. This is just one example of how advances in biotechnology are revolutionizing the fields of biology, medicine, and beyond every day. This intersession will focus on cutting edge advances in biotechnology from the use of nanotechnology in the medical field, to new DNA sequencing techniques and their impact on the field of personal genomics, to the recent progress made in genetic modification, as well as topics chosen by the students involved. We will learn about how the technology works, as well as discuss the implications of these advances for the field of biology, medicine, and our society as a whole.

Prerequisite(s) SI Biology

Cost(s) None

Sarah O'Leary Driscoll, IMSA Faculty soleary@imsa.edu

Don Dosch, IMSA Faculty ddosch@imsa.edu

Swimming for a Lifetime of Fitness

Part time Morning

Students will start each morning viewing videotape of proper stroke technique for the four competitive strokes: freestyle, backstroke, breaststroke, and butterfly and the two survival strokes: sidestroke and elementary backstroke. Then we will get in the water to practice these techniques. Each day will have a different focus while we build our skills throughout the week. At the end of each session, we will work on other skills such as diving, flip turns, and treading water. We also play a game each day such as water volleyball or water polo.

Prerequisite(s) None

Cost(s) None

Brooke Schmidt, IMSA Faculty bschmidt@imsa.edu

Eleanor Naudzius, Student Lifeguard

Music Performance! Classical to Broadway

Part time Morning

Vocalists and Instrumentalists needed. Participants will hone performance skills through practice, dialogue and individualized coaching. Tips for professional performance techniques will be discussed. Students will have solo/ensemble opportunities in a variety of genres. Master class sessions will be available. The final goal will be a featured performance on Friday in the IRC. If you are currently enrolled in a music course, this could be an opportunity to prepare music for the IHSA solo/ensemble contest and/or future concerts.

Prerequisite(s) Intermediate music performance ability.

Cost(s) None

Emily Sites, IMSA Faculty esites@imsa.edu

Mary Beth McCarthy, IMSA Faculty mmcarthy@imsa.edu

Music Composition

Part time Morning

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 improve students' pieces, 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.

Prerequisite(s) 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.

Cost(s) None

Peter Dong, IMSA Faculty pdong@imsa.edu

Daniel Collins, IMSA Class of 2015 dcollins@imsa.edu

Moments of Light: Art, Culture, and the Creative Spirit

Part time Morning

The subject of Vermeer's "Girl with a Pearl Earring" stares directly at the viewer, her eyes full of emotion and mystery. Is she serene ... sad ... seductive? Why has the artist chosen to portray her in such a manner? More importantly, what assumptions can we make about the culture that lies behind the work, and its attitudes towards humanity, individuality, or femininity? A work of art serves as an expression of the cultural values from which it springs; it embodies particular views of beauty, power, morality, and sexuality. It also exists in several other dimensions: the dominant systems of thought that shape it, the other works of art that influence its creation, the intentions and inner struggles of the artist, and the assumptions of those who experience it. In this intersession, we will look at ten individual works of art in all their complexity, two on each day of the course. We will explore the varied factors that influenced each work, we will trace the changing definitions of the beautiful, the sacred, and the sensual, and we will study the way that works of art reflect the experiences and struggles of individual artists.

Prerequisite(s) Eyes.

Cost(s) None

Robert Kiely, IMSA Faculty oldstuff@imsa.edu

Engineering--the Basement Tapes

Part time Morning

Groups of students will work on projects to build an apparatus. Introductory to each project will be a brief lesson on the principles of science underlying the construction and function of the apparatus. Concluding each project will be a contest to test each apparatus. 2 or 3 projects will be constructed during the Intersession. The projects will be taken from the set of past projects that were used in Engineering and Applied Mechanics--current Engineering projects will not be used.

Prerequisite(s) None

Cost(s) None

Peter Clancy, IMSA Faculty pclancy@imsa.edu

Xtreme Dance Studio Comes to IMSA

Part time Morning

In this intersession you will learn a variety of dances taught by a certified dance instructor from Xtreme Dance Studio of Naperville. This is a great way to burn calories, learn some new dance moves and get ready for prom.

Prerequisite(s) None

Cost(s) \$10 per student.

Deb Scarano, IMSA Faculty dscarano@imsa.edu

Anita White, IMSA Faculty awhite@imsa.edu

The Internet & Linux Systems (Beginner)

Part time Morning

Do you plan to pursue graduate school in a hard science? Much of today's science is based on computer models, and most of those advanced models are run on Linux clusters. Many new grad students discover they have no idea how to

use the systems they need to pursue their degree only after they arrive. Become more comfortable with Linux systems now and learn basic concepts and tools common to all Unix variants. Spend time hands-on with the command-line/shell and use it to explore and create simple web pages and email from scratch. Learn about core Internet services everyone uses and how they really work.

Prerequisite(s) No experience with Linux, Unix, or programming is expected or necessary. Students must bring laptop each day of class.

Cost(s) None

Kevin Colby, IMSA Class of 1995 anarchy@imsaalumni.org

Irish Culture

Part time Morning

This Intersession will be a survey of Irish culture through the study of music, literature, film, sports, religion, language, and history. It is open to all students who are interested in learning more about Irish culture.

In addition, a trip to Ireland will take place during Spring Break 2016 if we meet a minimum number of students interested and able to participate. The "Irish Culture" intersession will enhance the travel experience to Ireland, however, please note that you can attend this intersession and not take part in the Spring Break trip. Likewise, you can take part in the Spring Break trip without taking part in this intersession. More information on the proposed Spring Break trip will be provided separately from this catalogue.

Prerequisite(s) None

Cost(s) There are no costs for this intersession; proposed Spring Break trip costs will be provided separately from this catalog.

Fiona Spence, IMSA Faculty fspence@imsa.edu

PART TIME SESSIONS, Afternoon 1:00 PM – 4:00 PM

Fun with Chinese Cooking

Part time Afternoon

Food symbolizes family unity and togetherness in the Chinese culture. It is the most essential cultural element in China. Using food as a medium, this intersession will help students develop deeper understanding of the Chinese culture. Students will first research and present their understanding of traditions and customs of various festival and tea culture. Students will then have an opportunity to cook various Chinese food of different cultural significance to experience the culture with hands on experience. The menu includes dumplings (jiaozi), spring roll (chunjuan), New Year cake (niangao & fagao) and tea tasting. Vegetarian options are available.

Prerequisite(s) Priority given to Chinese II and III students.

Cost(s) \$30 per student.

Yinshun Wang, IMSA Faculty laoshi@imsa.edu

Appreciating Classical Music for Geeks, Or, What's All This Artsy Fuss About?

Part time Afternoon

Classical music is intimidating. It is associated with bygone era, formal dress, and boredom. Yet, it surrounds us today—from Bugs Bunny cartoons to TV beef commercials. We encounter classical music in all walks of life, and might even like it, without realizing it! This course will allow students with no background in classical music to learn how to appreciate and enjoy it.

Prerequisite(s) The course is designed for students with minimal understanding/knowledge of classical music, preferably with none at all.

Cost(s) None

Vitlaus von Horn, Current IMSA Parent
Emily Sites, IMSA Faculty esites@imsa.edu

Modern Science, Military Technology, Policy, and Ethics

Part time Afternoon

This intersession will cover the role of science in the development of military technology and abilities in the modern era. We will discuss the policies and ethics behind the use of these technologies and military. Possible topics covered are the Manhattan Project and nuclear weapons, remote sensing, submarines, biological and chemical weapons, drones, and non-lethal weapons.

Prerequisite(s) None

Cost(s) None

Eric Hawker, IMSA Faculty ehawker@imsa.edu

Lee Eysturlid, IMSA Faculty leysturl@imsa.edu

Robert Kiely, IMSA Faculty oldstuff@imsa.edu

The Russian Revolution

Part time Afternoon

The intersession will provide an understanding of Russian culture and history of the first 20 years of the 20th century through the lens of Russian literature, Russian film, and art. We will discuss two short stories by Maxim Gorky, excerpts from *Ten Days That Shook the World* by John Reed and Yevgeny Zamyatin's *We*. We will watch and discuss the following films: Sergei Eisenstein's *Battleship Potemkin* and *October: Ten Days That Shook the World*, Dovzhenko's *Earth*, Chapayev directed by brothers Vasiliev, and Motyl's *The White Sun of the Desert*. The following topics will be examined in detail: What were the reasons for the Russian revolution? Why did the revolution find such enormous support within the country? How was it perceived in the West? Would it have been possible to prevent it? What went wrong after the revolution? What were the Civil War and War Communism? What was the role of propaganda during the Civil War? How do artists respond to and shape historical events? How did writers in the early 20th Russia transmute fear, violence, hopes, and chaos into art? How do utopian ideas and dreams transform into reality?

Prerequisite(s) Please read Yevgeny Zamyatin's *We* translated by Natasha Randall, Modern Library Classics, 2006 prior to the Intersession. Students should purchase their own copy of the book, or borrow one from a library. Novel description: Written in 1921, *We* is set in a dystopian state 1000 years into the future. The story is conveyed in the form of the diary of a mathematician.

Cost(s) Purchasing Zamyatin's *We* (around \$12 at Amazon.com for a paper copy); students can also borrow one from a library.

Kitty Lam, IMSA Faculty klam@imsa.edu

Julia Denne, Current IMSA Parent

Lifecycle of a Startup

Part time Afternoon

This simulation about entrepreneurship compresses the first year of a start up into five days. Played by teams formed on the first day, this simulation involves all major aspects of starting a new business from scratch: finding partners, developing an idea into a product or service, creating a business model, marketing plans and media, raising outside investment and sales. The experience involves leadership, teamwork and problem solving to negotiate challenges that occur, sometimes unpredictably, in the lifecycle of a new business. Participants may use this experience as a springboard to enter the TALENT Power Pitch contest.

Prerequisite(s) None

Cost(s) None

Carl Heine, IMSA Staff heine@imsa.edu

Actuarial Science for Dummies (and Smart Folks as Well)

Part time Afternoon

This Intersession will introduce students to the fascinating world of actuarial science as presented by two IMSA alumni at very different points in their actuarial careers. This session will be a combination of hands-on actuarial exam problems, group collaboration, business case studies, and will culminate with group presentations.

Prerequisite(s) None

Cost(s) None

Jacob "Jake" Akstins, IMSA Class of 2014 jakstins@gmail.com

Osman Ahmed, IMSA Class of 1999 oahmed@gmail.com

Richard Stalmack, IMSA Faculty rstalma@imsa.edu

Ragtime: An American Classic

Part time Afternoon

In this session, we will learn about ragtime piano music from many different angles: musical, historical, cultural, sociological, ethnic/racial, artistic, and so on. All participants will learn how to play ragtime and our culminating activity will be a group recital. This means that all participants must be able to play at an intermediate level at least.

Prerequisite(s) Several years of piano study.

Cost(s) None

Jonathan Besancon, IMSA Faculty sensei@imsa.edu

Lies, Damn Lies, and Statistics: How to Make Your Data Say Whatever You Want

Part time Afternoon

Modern science is built on a foundation of rigorous statistical analysis, which adds reliability and objectivity to scientific results. Unfortunately, it also makes scientific analysis much more complicated, leaving ample room for mistakes – both accidental and deliberate – that change the meaning of the data. This is often exacerbated by the media and by politicians, resulting in widespread misunderstanding of science. This course examines a variety of methods used to obscure, distort, or misrepresent scientific data, such as statistical errors, disingenuous graphs, and deliberately misworded statements. Students will learn to think twice before accepting the findings of a published study – especially if it's in a newspaper article.

Prerequisite(s) None

Cost(s) None

Peter Dong, IMSA Faculty pdong@imsa.edu

Joe Traina, IMSA Faculty jtraina@imsa.edu

My Neighbor Miyazaki: The Magic of Studio Ghibli

Part time Afternoon

Using the films of renowned animator Hayao Miyazaki we will explore history, themes, and techniques of both literary storytelling and mechanics of animation. Students will be expected to be familiar with the Miyazaki films, particularly those listed below. This Intersession will be very discussion heavy, but we will also watch movies, drink some tea, read, and listen to music. If you're looking for a diverse experience that offers rich, cultural insights in a relaxed environment, consider applying! Expect some out of class work; i.e. watching one film and working on a group project throughout the week.

Prerequisite(s) Before the beginning of Intersession week students should watch the following: *The Wind Rises*, *Spirited Away*, *Howl's Moving Castle*, *My Neighbor Totoro*, and *Nausicaa of the Valley of the Wind*. Don't worry about most of the others, we'll cover them in class!

Cost(s) None

Christoph Eckrich, Current IMSA Student ceckrich@imsa.edu

Andrew Adams, Current IMSA Student aadams@imsa.edu

Adam Kotlarczyk, IMSA Faculty akotlarczyk@imsa.edu

Intentional Lighting: Advance from Taking Photos to Making Photos

Part time Afternoon

Intentional lighting lies at the core of any good photography; lighting controls the mood and atmosphere of a photo and can fill a scene with texture and life. The Intersession will teach you how to intentionally use lighting to create captivating photos communicating emotion and a story for viewers. It will be taught in a studio using professional lighting equipment, but the concepts can be applied to any situation. Portrait, product, and food photography will be covered; high-speed, action, and sports photography may be discussed as time permits.

Prerequisite(s) Students should have a basic understanding of how to operate a DSLR camera and should have some understanding of photography, art, and/or design. A basic understanding of composition is required but will not be covered.

Cost(s) None

Ryan Eberhardt, IMSA Class of 2014 ryan@reberhardt.com

Kevin Broy, IMSA Staff kbroy@imsa.edu

Malachi Loviska, IMSA Class of 2015 mlovis2@illinois.edu

Eric Hennenfent, IMSA Class of 2015 hennenf2@illinois.edu

On-Campus Theater Workshop

Part time Afternoon

This intersession is designed for the IMSA student who already loves theater or who knows little about theater but wants to learn more. Over the week, we will hold daily seminars that will increase student's understanding of theatre as an art form and cultural influence. We will explore dramatic structure and style, acting and directing, stage management and design. We will be hosting local professionals in the theatrical world who will talk about their experiences and exposure to theatre.

Prerequisite(s) Students are recommended, but not required, to participate in the evening Experiencing Chicago Theater intersession.

Cost(s) None

Julie Dowling, IMSA Faculty and IMSA Class of 1999 jdowlin@imsa.edu

Devon Madon, IMSA Faculty dmadon@imsa.edu

It Takes A Villain: Depictions of Villainy in Literature and Film

Part time Afternoon

Have you ever read a book or watched a movie and found yourself siding with the "bad guy" rather than the protagonist? Have you wondered what goes into making a happy ending? If so, then this intersession might be for you. Over the course of the week, we'll explore what goes into the making of a villain through a variety of activities, including class discussions, readings, film screenings, and creative exercises. As we attempt to dissect the nature of evil, we'll consider a number of topics, such as moral relativism, psychological motivation, and symbolism, as they pertain to our perceptions of characters in representative examples of classic literature and film. Depending on time and interest, a more philosophical discourse on the subject maybe held, in which different conceptions of the nature of humanity and reality will be entertained and their impact on our definition of villainy explored. Similarly, the political ramifications of such notions, and their corresponding societal influences, may also be discussed. Readings will include classic fairy tales, selections from Milton's *Paradise Lost* and Shakespeare's *Othello*, short stories by Edgar Allan Poe, and Austin Grossman's *Soon I Will Be Invincible*. Films will include *The Wizard of Oz*, *Star Wars*, and iconic Disney movies, such as *Sleeping Beauty*. This course will involve a significant amount of reading and written work (approximately an hour a night), as well as prior preparation, namely reading Grossman's *Soon I Will Be Invincible*. Students will also be expected to actively participate in class discussions and activities.

Prerequisite(s) General familiarity with common stories, books, and movies (e.g. fairy tales, Harry Potter, Disney), willingness to read, write, and discuss topics candidly.

Cost(s) Students are responsible for obtaining and reading a copy of *Soon I Will Be Invincible* by the first day.

Daniel Collins, IMSA Class of 2015 dcollins@imsa.edu

Michael Hancock, IMSA Faculty and IMSA Class of 1989 mhanc@imsa.edu

The Internet and Linux Systems (Advanced)

Part time Afternoon

This is NOT a continuation of the Beginner section. Students need not have taken the Beginner section previously. This will cover many of the same topics, but is geared for those intending to pursue a degree in a computer-related field. Review tools common to all Unix variants and explore tips and tricks for using them in shell scripts. Learn about core Internet services everyone uses and how they really work. Create simple PHP-driven web pages and create and use RESTful web services.

Prerequisite(s) Experience using some programming or scripting language is required. Students must bring a laptop every day.

Cost(s) None

Kevin Colby, IMSA Class of 1995 anarchy@imsaalumni.org

A to Polska właśnie... Exploring Polish Language and Culture

Part time Afternoon

This intersession will introduce students to the language and culture of Poland. Participants will learn basics of Polish with an emphasis on speaking and communication. They will also explore different aspects of Polish culture and Polish contributions to science, literature, modern society, and entrepreneurship. Do you want to discover "the hardest language in the world to learn"? Do you want to explore Polish impact on history from 966 to bringing down Communism, to giving the world a disproportional number of Nobel Prize winners? Do you want to explore your ethnic roots? Get past the crazy grammar and discover the language that is "amazingly different," the country that is "one of the most dynamic economies of EU," and the nation that has seen "the emergence of an entrepreneurial generation."

Prerequisite(s) None

Cost(s) None

Agnieszka Michalak, IMSA Faculty amichal@imsa.edu

Science Olympiad Build Events

Part time Afternoon

Science Olympiad competitions are like academic track meets, consisting of a series of 23 team events. Each year, a portion of the events are rotated to reflect the ever-changing nature of genetics, earth science, chemistry, anatomy, physics, geology, mechanical engineering and technology. Emphasis is placed on active, hands-on group participation and the focus will be on the build events for the 2015-2016 session.

Prerequisite(s) Knowledge of Science Olympiad Build Events for 2015-2016 Season.

Cost(s) None

John Thurmond, IMSA Faculty jthurmond@imsa.edu

Balsa Bridge Design, Building, and Testing

Part time Afternoon

This will be a very "hands-on" class. The first day of Intersession students will research basic design principles and design their bridge. Students will learn about compression, tension, and how triangles distribute these forces to add strength to bridges. The next three days will be spent building a bridge out of balsa sticks and glue. On the last day of Intersession, students will test the strength of their bridges in a "Bridge Bust" competition; bridges will be judged for their appearance/design and tested for strength. Note: students who wish to keep their bridge rather than have it tested for strength (which breaks the bridge) will be allowed to do so.

Prerequisite(s) None

Cost(s) None

Dave DeVol, IMSA Faculty ddevol@imsa.edu

Infectious Diseases as Depicted in Cinema

Part time Afternoon

Students will learn about infectious diseases and the field of epidemiology via discussion of various movies produced by Hollywood from the 1940s to the present. The class will also learn about both the factors which microbes have to cause disease and a survey of the human host defenses which prevent disease. We will talk about the governments agencies (CDC, WHO, etc.) charged with preventing outbreaks of infectious diseases and/or controlling epidemics and pandemics. We will explore the period through a combination of discussion, documents, and movies.

Prerequisite(s) Previous biology course (SI-Bio and/or pre-IMSA biology course), helpful course: MAD

Cost(s) None

Edwin M. Goebel, IMSA Science Faculty Emeritus goebelem@gmail.com

PART TIME SESSIONS, Evening
6:30 PM – 9:30 PM

Food Science Unwrapped!

Part time Evening

Have you ever wondered how Oreos are made? Or what gives Coke its signature taste? What is a GMO, anyway? All of those things and more will be explored along with an exercise in creating new products! We will break apart common foods and discuss the components that make them unique. Students will learn about food chemistry and food microbiology, along with food processing and food engineering. A trip to visit a food manufacturing facility for a tour and product sampling may be offered.

Prerequisite(s) Working knowledge of chemistry and microbiology.

Cost(s) None

Lacey Thomas, IMSA Class of 2008 thomas.lacey.a@gmail.com

Brenda Crosby, IMSA Faculty brendac@imsa.edu

Seuss, Scarry, and Samuel L. Jackson: A Hands-On Exploration of Writing and Illustrating for the Kid in All of Us

Part time Evening

For many of us, the books of our childhood have carried through as we've grown older, taking on new and evolving meaning. Perhaps you were drawn to the kooky illustrations and weird rhymes of Dr. Seuss' Oh, The Places You'll Go! but then appreciate it in a new light as you're standing in line to get your diploma, about to embark on a new chapter in life. Perhaps it was the irreverence of Samuel L. Jackson's reading of Go the Fuck to Sleep. Perhaps it was the imagination and pure, unabashed emotion of The Little Prince, or the sweet simplicity of Winnie the Pooh. Or perhaps even the nihilism of All My Friends Are Dead. Whatever it may be, these stories linger with us. During this intersession, we will highlight some of the best minds who have made a career out of creating imaginative, inspirational, and sometimes controversial books for children and adults alike. You will have the opportunity to write and illustrate your own children's book, taking from the examples of prominent authors. By attempting to merge the written word with simple art, you will get the chance to explore the timeless craft of storytelling through a medium you might not have thought about in a while.

Prerequisite(s) None

Cost(s) \$15 per student to cover the cost of having a book bound, if the student chooses to do so.

Alisha Vimawala, IMSA Class of 2009 alisha.vimawala@gmail.com

Sonali Jayakar, IMSA Class of 2008 sonali.jayakar@gmail.com

Noah Prince, IMSA Faculty nprince@imsa.edu

Human Spaceflight, from Goddard through Elon Musk

Part time Evening

A survey course on the history of human space exploration. We will cover early rocketry, the Mercury, Gemini, and Apollo programs as well as their Soviet counter-parts, the failed dream and many accomplishments of the Shuttle program, and end with the transition from national space programs to private ventures including SpaceX, space elevators, and plans for Mars. The emphasis will be the historical narrative and recurring themes throughout the last century (as well as what this means for humanity), but we will also dive into the basic physics and engineering details, including challenges in pre-WWII rocketry, the Apollo Guidance Computer, brittle O-rings, SpaceX's disastrous crash, and materials constraints on space elevators.

Prerequisite(s) None

Cost(s) None

Steven Lucy, IMSA Class of 2002 steven.lucy@gmail.com

Jered Wierzbicki, IMSA Class of 2002 jeredw@gmail.com

Namrata Pandya, IMSA Faculty npandya@imsa.edu

Experiencing Chicago Theater

Part time Evening

Students will be going to see professional theatrical performances in the Chicagoland area. We will be seeing 3 shows throughout the week at different venues to give students the exposure to the variety of theatre that makes up professional theatre. The other two days students will be at IMSA and we will be discussing elements of theatrical performance and bringing in local professionals in the theatrical world to talk about their experiences and exposure to theatre. Payment to be made upon return from Thanksgiving break to purchase tickets.

Prerequisite(s) Students will need to pay for the productions (at group rates). The Second City show may contain adult content and language, the equivalent of an R-rated movie (primarily for language). Students will be required to submit a parent permission form in order to participate in this intersession.

Cost(s) \$200 per student for theatre tickets for the 3 shows.

Julie Dowling, IMSA Faculty and IMSA Class of 1999 jdowlin@imsa.edu

Devon Madon, IMSA Faculty dmadon@imsa.edu

Introduction to Improv

Part Time Evening

Improvisation is a theater form in which everything that is said and done is made up by the actors based on suggestions from the audience. Students in this intersession will learn the fundamentals of improv through exercises and short-form games similar to those seen on "Whose Line Is It Anyway?" Over the course of the week, the students will learn how to perform improv scenes, develop characters and relationships, the rules of the improv games, and the importance of supporting their teammates and saying "Yes, And...". On Friday, the class will perform a 30 minute show for the IMSA community, and on Saturday, there will be an optional trip to Westside Improv in Wheaton to watch a professional improv performance.

Prerequisite(s) None

Cost(s) \$5 for a ticket to the optional improv show on the Saturday following the intersession.

Brian Sebby, Class of 1996 brians@gmail.com

Jerami Johnson, IMSA Staff jjohnson@imsa.edu

OFF-CAMPUS TRIPS

Art History in Italy: The Renaissance in Context – CLOSED SESSION

Full Time Off-Campus

Come with us on an artistic adventure to Rome, Florence, and Sienna. These cultural hubs of the Italian Renaissance are home of the works of Italian masters such as Donatello, Michelangelo, Raphael, and Caravaggio. You will experience the culture and history that created many great works of art from the Renaissance period. We will start in Florence, one of the birthplaces of the Renaissance. As the Medici family rose, so too did Florence's importance in the 16th century art world as their patronage funded some of the most well-known artists in history, notably Donatello and Michelangelo. The Tuscan capitol offers much to see from architecture to paintings and sculpture. From Florence we will travel to Rome to see much of the later Renaissance into the Baroque period, taking tours of the Vatican to see major works by Michelangelo and Raphael and the Borghese gallery for Bernini. We will also visit the ancient Roman ruins of the Forum, the Arch of Titus, and the Colosseum. Come travel with us to see the genius that the Italian Renaissance has to offer.

Prerequisite(s) Prospective students will fill out an application and students will be chosen based on the merits of their application. Ideal student to chaperone ratio is 8:1 and we have contacted other chaperones in case we reach our maximum students. Students will be asked to participate in three one-two hour long pre-trip educational sessions to help them better appreciate the art they will see on the trip and the ideologies that they were created under. Sessions will be taught by John Jaeger and Dr. Robert Kiely.

Cost(s) \$2,500 per student - this will cover travel, food, lodging, and admission fees to various museums and attractions as well as cost of tour guides in specific galleries.

John Jaeger, IMSA Staff jjaeager@imsa.edu

Erin Ryan, IMSA Staff

Michal Kolton, IMSA Staff

Steve Condie, IMSA Faculty

Lisa Hellman, Former IMSA Staff

Explore the 'aina - Intersession Trip to Hawai'i – CLOSED SESSION

Full Time Off-Campus

Hawai'i is a beautiful state with a very unique history and culture. This is a chance for students to explore all it has to offer from January 7th-14th. During this intersession, students will visit the island of Oahu in order to study 1) Polynesian culture, 2.) American History, 3.) Agriculture, 4.) Ecology. Students will spend the first two nights in the mountains at Waianae working with the Sierra Club of Hawai'i, a conservation group. Ecological specialists will work with students on projects relating to erosion mitigation and habitat protection. At the Polynesian Cultural Center, students will learn about the different Polynesian islands through dance, song, food, and live demonstrations. At Dole Plantation, students will

learn about Hawaii's agriculture and farming industry. They will also have the opportunity to take positive risks by navigating through the world's largest maze. At the Pearl Harbor memorial, students will learn about the "Day that will live in infamy" by visiting the location of Pearl Harbor and going through an audio tour at the U.S.S. Arizona. Additionally, students will visit Iolani Palace and learn about Hawaii's unique history into statehood. Lastly, students will get to learn about underwater life from a new perspective by going on a submarine tour and a whale watching excursion. In addition to these attractions, students will experience the differences of Hawaii's tourism industry and the local community. Students will complete a community service project to help the homeless population in Hawaii. A write up about the entire learning experience will be due on the 15th of January in order to successfully obtain a satisfactory for the intersession.

Outside work expectations:

January 8th - 4 hours working on ecological conservation project.

January 10th - 3 hours outside during whale watching excursion plus 1.5 hours in submarine.

January 12th - 2 hours outside during Dole plantation

Prerequisite(s) Students must have the ability to walk for 2.5 miles for the hike on January 8th. Students will need an up to date Government issued ID for travel (i.e. Driver's License, Passport, State ID). Students will need to complete a 500 word essay answering the following questions: "What about this intersession interest you? 2.) What do you hope to gain being a part of this intersession? and 3.) How does this intersession benefit your current goals?"

Cost(s) \$2,200 to cover air fare, boarding, public transportation ("TheBus") in Hawaii, and entrance fees for activities. Students will need to bring money for meals, however dinner at the Polynesian Cultural Center for one night is included in this fee.

Kandyce Baker, IMSA Staff kbaker@imsa.edu

Reuel Abraham, IMSA Staff rabraham@imsa.edu

Trip to Spain - CLOSED SESSION

Full Time Off-Campus

Travel to Madrid and Barcelona from January 7-15, 2016. Enrollment in this Intersession open to students enrolled in Spanish classes at IMSA (levels II-V) and students in other language courses who are native speakers of Spanish.

Prerequisite(s) Open only to students enrolled in Spanish classes or native speakers

Cost(s) \$1,900 per student.

Jose Palos, IMSA Faculty jpalos@imsa.edu

Barbara Hernandez, IMSA Staff

Marcos Beltran, IMSA Staff

Cultural Competence: Skiing and Snowboarding – CLOSED SESSION

Full Time Off-Campus

Are you culturally competent? Do you enjoy helping others who get picked on or bullied? Have you ever wanted to stand up for others? The main purpose of the Cultural Competency intersession is to learn how to stand up for injustices in the world. We will discuss how you would react to a person who is gay, someone who is another race, or someone with an intellectual disability who is being bullied for being who they are. We will discuss as a group what you would do and why it is important to stand up to bullies. The main focus of the week will be setting up the Spread the Word to End the Word Day in March. Through the social justice education, students will create awareness for the IMSA community. We will do this all out in Breckenridge Colorado. If you love to ski or snowboard, this is the trip for you. If you have never done either, but want to learn, this is the trip for you. You will be taught how to ski or snowboard in one of the best places in the world. The Sochi Olympic trials for the US were held in Breckenridge. One night we will go on a ghost tour around Breckenridge to learn about the history and culture of the town and the original town miners. We will spend 4 days on the slopes and each night we will learn about cultural competency and social justice.

Prerequisite(s) If you are interested in this trip, you will need to complete a questionnaire. You must arrange your transportation to and from Midway airport -- Sunday, January 10 and Friday, January 15, 2016. You will need to provide money for your meals. Only 1 or 2 meals will be provided. You may bring your own food for breakfast or snacks.

You will be required to bring your computers. You will need to spend additional time in February and in March for Spread the Word to End the Word. This intersession is not just the week of January.

Cost(s) \$1,400 per student. The cost will cover airfare, hotel costs, rental skis/snowboards, transportation to and from the airport, and the ghost tour. This will not include meals. Expect an additional \$300.00 for meals during the week.

David Lundgren, IMSA Faculty dlundgren@imsa.edu

Erin Micko, IMSA Faculty emicklo@imsa.edu

IN2 Launch Prep – CLOSED SESSION

Full Time Off-Campus

The countdown to IMSA's innovation hub opening is on and IN2 is opening the summer of 2016. Students will work in two teams (technology and program) to develop a final report of recommendations to submit as part of the IN2 collaborative process. Intersession stays on campus on Monday and Friday and is off campus T-Th, tentatively scheduled to go to Rockford (EigerLab, Woodward, and NIU engineering), Peoria (NEXT Innovation Center and Caterpillar) and University of Illinois (Research Park and Enterprise Works). A final presentation of recommendations is given to the IMSA community on Friday afternoon and reports with recommendations from each team submitted to Britta McKenna. NOTE: Students need to apply to this Intersession separately. An information session will be held to answer questions prior to Intersession registration.

Prerequisite(s) Active current involvement with IN2 - student advisory member, TALENT, Maker Squad, or other IN2 project is preferred.

Cost(s) \$165 per student estimate

Britta McKenna IMSA Staff bmckenna@imsa.edu

Jeff Margolis, IMSA Staff jmargolis@imsa.edu