

## INTERSESSION 2010

### FULL TIME SESSIONS, Morning / Afternoon

#### **Basic Open Water Scuba Certification (PADI)-This Intersession is Closed**

Full-time Morning/Afternoon

Discover the magic and excitement of our underwater world! Scuba diving is a non-competitive sport that can be enjoyed by almost anyone. During this course, students will learn about buoyancy, pressure/volume/density relationships, proper scuba techniques and skills, equipment, and our underwater world.

**Prerequisites:** Must be able to swim comfortably. Must have appropriate mask, snorkel, boots, fins (package prices range from \$150-\$280). Pre-class homework: Read the PADI Open Water Diver Manual and complete Knowledge Reviews. Physician approval may be required for certain pre-existing medical conditions.

\$350.00 fee includes instruction, educational materials, and rental of available scuba equipment during course and for open water dive testing, 2 day entry fee for Pearl Lake or Haigh Quarry, PADI certification fee.

Susan Bernal, IMSA Staff

#### **Building a Robot for FIRST This Intersession is Closed**

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). Intersession week is the first week after the competition task is announced and an ideal time to design and begin building the robot. In the Intersession, the students will participate in the first of six weeks of FRC. During this stage of the competition, we will strategically analyze the recently announced competition to distill optimal design concepts. Utilizing these concepts, we will collaboratively design, draft, and prototype multiple robots in the search for an optimal design. We 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. Those five weeks will involve the building, programming, and testing that is required to have a competition ready robot. Students who show commitment throughout the six weeks will be invited to go to the regional competition held in Chicago and possibly a second in another city, and if our team qualifies, to the championship in Atlanta.

**Prerequisites:** Must be on the robotics list Jim will supply (just over 50 names) or have Jim's permission.

Jim Gerry, IMSA Staff  
Cameron Breedlove, Class of 2009  
Jenny Iglesias, Class of 2008

#### **Chicago Museum Marathon –This Session Is CLOSED**

Full-time Morning/Afternoon

Students will make daily visits into Chicago in order to visit nine museums (Museum of Contemporary Photography, Chicago History Museum, Museum of Contemporary Art, International Museum of Surgical Science, National Museum of Mexican Art, Chicago Maritime

Society, Field Museum, Adler Planetarium, and the Art Institute of Chicago). These will be day-long excursions.

**Prerequisites:** As all of the museums will be free by holding to precisely the above schedule, students will be only required to purchase a ten-ride pass on the Metra (\$48.05) and depending on the weather at least 2 CTA passes for the bus and train (\$10).

Dr. Eric Smith, IMSA Faculty

### **Cinematic Music: Score Development Survey from The Silents to The Seventies**

Full-time Morning/Afternoon

This Session will outline a basic evolution of cinematic music through the development of the film score. The Categories of Score Development to be studied include:

1. The Silents
2. The first "Talkies" and Movie Musicals
3. Epics and Sound Effects
4. Defined Themes: Characters and Scenes

**Prerequisites:** Interest in music and movies.

Mary Beth McCarthy, IMSA Faculty

### **HORSE!**

Full-time Morning/Afternoon

This intersession will celebrate the horse: his natural history, beauty, and partnership with man. Through film, literature, history, art, and field trips to see real horses, we will come to know him better. Although most of the world no longer depends on horses for work and transportation, there are more horses used for pleasure than ever existed as work animals, so his appeal continues. We will try to get at the reasons for his continuing appeal today, and what we owe him as a partner for so many centuries.

**Prerequisites:** Approximately \$8 for the Temple Lipizzan tour; lunch money (if other than the IMSA boxed lunch is desired) for that day; personal spending money at Saddler's Row afterward (if desired). If art supplies other than drawing paper and charcoal are desired, students should bring these to the afternoon activity sessions.

Dr. Jean Kadel, IMSA Faculty

### **IMSA on Wheels and On the Road—This Session Is CLOSED**

Full-time Morning/Afternoon

Experienced and novice IMSA on Wheels performers will spend 2 days with intensive study and rehearsal of the science assembly States of Matter: Does it matter? Then hit the road and perform for deserving schools in a TBD area of the state for 3rd - 5th graders. Students attending this intersession will learn more about presentation skills, education, and motivation.

**Prerequisites:** None

Tracy Miller, IMSA Staff

## **Interaction Design - The Boardgame Imperative-This Session Is CLOSED**

Full-time          Morning/Afternoon

Why are board games so much fun? Interaction design is the discipline of defining how the behavior of products and systems interact with users. Since board games present a system of rules and mediate a competitive narrative, they provide a controlled and thoughtful environment for reflecting on interaction design. In this class participants will be presented with an array of board game experiences and asked to reflect on their own engagement and interactions. A brief historical review of games, readings, and an introduction to modern board game mechanics will prepare the participants to enter the mindset of the board game designer as social and narrative engineer. Additionally, the class is set-up as a competitive game itself to create a larger meta-competition that augments the inherent sub-texts of game play. This is not a class about board games.

**Prerequisites:** Patience, good sportsmanship, and a brief personal statement emailed to [cschreiber@imsa.edu](mailto:cschreiber@imsa.edu) by Tuesday, November 3 at midnight, explaining why you want to be in the class.

Additionally, there is a \$50 supply/games fee due Tues., Dec 15. Students will get to keep the games purchased for the course.

Chris Schreiber, IMSA Resident Counselor  
Nicole Howard, Current IMSA Student

## **Junk Electronics with Microcontrollers This Intersession is Closed**

Full-time          Morning/Afternoon

Micro controllers are the magic glue of the electronics world. They can connect disparate systems and provide processing power to create amazing devices. And they're cheap and easy to use, which opens up a whole new world of possibilities - they're capable of making a Wiimote aim an airsoft gun, a remote control turn your lights on, controlling a machine that can build itself, and whatever someone with some creativity can dream up! In this intersession, you'll learn to work with micro controllers. After covering the basics, you'll get a chance to create something of your own design, using parts you'll salvage from R/C cars, used consumer electronics, and other electronic "junk" that instructors will provide.

**Prerequisites:** Knowledge of programming philosophy is expected (not necessarily experience, but an understanding of logic procedures).

Lucas Sturnfield, Class of 2003  
Brian Baker, Class of 2005  
Thomas Houlahan, Class of 2005  
Diane Hinterlong, IMSA Faculty

## **Matsubayashi-Ryu Karate 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 special martial arts seminar held at IMSA by a guest instructor and an optional dinner outing. The Intersession will conclude with a friendly tournament.

**Prerequisites:** 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: \$30.00 for a traditional, white uniform (mandatory, unless the student owns one), a \$15.00 equipment fee (mandatory), and \$5.00 for optional pizza at the awards ceremony on Friday afternoon.

Cynthia Nguyen Dang, Class of 2003  
Michael (Bo) Driscoll, Class of 2007  
Danielle Strickland, Current IMSA Student  
Dr. David Evenson, IMSA Staff

### **So you wanna be a doctor... –This Session Is CLOSED**

Full-time            Morning/Afternoon

Students will get a chance to experience first-hand the day-to-day activities of a physician and what it takes to enter the field. They will hear from physicians from all different specialties, interact with IMSA alumni who are either medical students or resident physicians, **and shadow physicians in their respective field.** Students will get to see the face of medicine when they tour local south- side and west-side clinics which help the underserved and uninsured. They will learn physical exam skills and see different medical scenarios come to life at the simulation lab. Time in the anatomy cadaver lab and a trip to the Museum of Science and Industry are also on the agenda. Finally, students will get to debate with the Rush community on topics such as the recent healthcare debate.

**Prerequisites:** This Intersession is sponsored in part by the Student National Medical Association, a national student-run organization focused on the needs and concerns of students of color. While we do not want to restrict who can participate in the program, we would like to have a diverse group of students who are genuinely interested in the field of medicine.

Students who have participated previously in a Medical Intersessions are not eligible.

Monica Radosevich, Class of 2004  
Gabriella Ode, Class of 2003  
Mark Kammrath, IMSA Faculty  
\*Staff Sponsor

### **Student Inquiry and Research for Intersession**

Full-time            Morning/Afternoon **or**  
Half-time            Morning or Afternoon

**Please mark form Full-time or Half-time**

Students enrolled in the Student Inquiry and Research Program may pursue their SIR investigations for full-time or half-time commitment. **Students will need to provide their own transportation to off-campus locations.**

**Prerequisites:** Students must be in good standing in the SIR program and obtain permission of their advisor and the SIR office.

Dr. Judy Scheppler, IMSA Staff

### **Sustainable Food: Waste, Hunger, and the Future of Agriculture**

Full-time Morning/Afternoon

An introduction to food and agriculture policy focusing on sustainability, with respect to the environment (waste, agricultural pollutants) as well as human life (finding long-term food sources). Using readings, audio and visual documentaries, and lectures in addition to hands-on activities and creative problem solving challenges we will explore the current system while examining ways to improve the future of farming. Trips and activities will include a visit to a farmers' market and lunch at a restaurant that supports the market; a tour of a sustainable farm/garden; cooking local, in-season foods; and measuring campus food waste. Students will learn basic vocabulary and concepts of the sustainability movement in order to become part of the dialog about how to address these problems. Readings will range from Fast Food Nation to *The New York Times* and the US farm bill.

**Prerequisites:** An interest in food, agriculture, and/or sustainability.

Carly Nix, Class of 2004  
Brittney Andres, Class of 2004  
Josh Kinder, Class of 2005  
\* Staff Sponsor

### **Sweet and Savory Science: Cooking IMSA style-This Session Is CLOSED**

Full-time Morning/Afternoon

A person dressed in white pours complex chemicals into a large container, heats, and watches for reactions to take place. School science lab or your home kitchen? For this intersession, inspired by Alton Brown's "Good Eats" and a love for science and good food, the answer is both! IMSA students will learn biology and chemistry concepts while they are gaining useful cooking skills and trying out recipes. At the end, students will produce their own "episode" to teach others about the science (and flavor!) of their favorite recipe in the kitchen.

**Prerequisites:** Cost of food TBD - \$15-20 per student

Sarah O'Leary, IMSA Faculty  
Dr. Jeong Hwang-Choe, IMSA Faculty

### **The Illinois Country**

Full-time Morning/Afternoon

This intersession will look at the history of Illinois in the century when it was French and the flashpoint of a global struggle for empire. This contest between Britain and France would trigger both the American and French Revolutions and marks the beginning of the modern world. Few people understand that it all really began in La Salle County. At the conclusion of this intersession, you will be equipped with an arsenal of information with which to amaze your friends and intimidate your college professors.

**Prerequisites:** None

Dr. Clay Skinner, IMSA Faculty

**The Teapot: Aesthetic or Cultural Icon? –This Session Is CLOSED**

Full-time Morning/Afternoon

Students will examine the teapot as it relates to history, culture, design and health. Participants will use cultural and historical ideas and imagery to explore and create their own designs for teapots, reflecting their own cultural and aesthetic values. Teapots will be fabricated out of clay by hand and with the potter's wheel.

**Prerequisites:** None other than willingness to problem solve, wrestle with ambiguity and design. \$26.00 per student - cost of clay and trip to art venue in Chicago.

Clay Sewell, IMSA Faculty

**FULL TIME SESSION, Afternoon / Evening**

**Pandemic - The 2009 variant of the H1N1 influenza virus and other historical microbial outbreaks This Session Is CLOSED**

Full-time Afternoon/Evening

This Intersession will examine the current pandemic of the 2009 variant of the H1N1 influenza virus as well as other historical microbial epidemics/pandemics. We will focus on the potential negative interactions between microbes and humans. In addition the 2009 H1N1 virus, we will look at a few other epidemics/pandemics from history (the 1918 variant of H1N1, Polio, Smallpox, The Black Death, and Cholera), and then spend some time talking about microbes which might cause epidemics and/or pandemics in the future. We will spend some time talking about the microbe's ability to cause disease (pathogenicity) as well as the human's ability to resist disease (immune response). The social and economic implications of this and historical epidemics/pandemics will also be explored.

**Prerequisites:** Scientific Inquires - Biology and at least one course in biology (pre-IMSA or biology elective at IMSA). 'Helpful' elective: MAD (Microbes and Disease).

Students will be required to research and write a short paper (2 - 3 pages) about a microbe capable of causing disease in humans. Paper will be submitted to Dr. Goebel electronically by Friday at 5:00 pm.

Dr. Ed Goebel, Emeritus IMSA Faculty

**HALF TIME SESSIONS / Morning**

**A Look at the Evolution of the Symphony from Haydn to Kancheli**

Half-time Morning

We will look at the evolution of the structure of an orchestral symphony from Haydn through Kancheli. The major part of the session will be listening to parts of symphonies.

**Prerequisites:** Interest in music.

Dr. Michael Keyton, IMSA Faculty

### **AP Chemistry Preparation Class—This Session Is CLOSED**

Half-time      Morning

The class will help prepare students for the AP Chemistry Exam. Practice problems and exams will be provided, studying strategies and the format of the exam will be discussed.

**Prerequisites:**      Students should purchase an AP Chemistry Exam preparation book. Barron's is suggested, as last year's class felt this was the best. However, any AP Chemistry prep book is OK.

Dr. David DeVol, IMSA Faculty  
Deb Scarano, IMSA Faculty

### **AP Physics C Mechanics Test Preparation**

Half-time      Morning

Students will engage in activities to increase their understanding of mechanics as well as how the AP test evaluates their understanding with the goal of improving performance. This will include test-taking, test grading, hands-on experimental design, reviewing conceptual problem areas, and learning material not highlighted in the Calculus-based Physics course.

**Prerequisites:**      Calculus-based Physics (Mechanics) or consent of instructor.

Dr. Mark Carlson, IMSA Faculty  
Brooke Schmidt, IMSA Faculty

### **Band of Brothers: World War Two in Film and Cultural Memory**

Half-time      Morning

This Intersession will use the 2001 HBO mini-series Band of Brothers as a vehicle for exploring both historical and fictionalized elements of World War Two. We will not only study the strategies and tactics of some of the major battles ' including D-Day, Market Garden, and the Battle of the Bulge 'in which Company E, 101st Airborne, participated, but also examine how the medium of film conveys, complicates, accents, simplifies, dilutes, or distorts the people and events portrayed. Ultimately, this Intersession is concerned with how we record and remember history, and with the inherent strengths and weaknesses of various genres and media in that preservation.

**Prerequisites:**      Students must view the 10-hour mini-series Band of Brothers prior to enrolling in the class; they must also purchase and read the book by Stephen Ambrose. We will have a brief informal meeting before the semester break.

Dr. Lee Eysturlid, IMSA Faculty  
Adam Kotlarczyk, IMSA Faculty

### **Compression**

Half-time      Morning

Data compression techniques are everywhere. They make possible such devices as cell phones, DVD players, and iPods. The Internet itself would be impractically slow without compression. I plan to investigate techniques for efficient compression and decompression of text, voice, music,

image, and video. We will look at both the general ideas (RLE and LZW for images, e.g.) and specific algorithms (FLAC for audio).

**Prerequisites:** Comfort with basic matrix arithmetic and basic trig. MI-3 probably OK, MI-4 preferred.

Dr. Micah Fogel, IMSA Faculty

### **Energy Center Projects**

Half-time Morning

Students involved in Geothermal, Wind, Solar, Biodiesel and other energy related projects will work in groups on projects.

**Prerequisites:** None

Branson Lawrence, IMSA Faculty

### **Exploring Famous Geometry Theorems Dynamically**

Half-time Morning

Using dynamic geometry software (either Geometer's Sketchpad or Cabri Geometry), students will have an opportunity to discover for themselves many famous geometry theorems and geometric relationships, and in the process perhaps discover some interesting things about geometry of which they were not aware.

**Prerequisites:** A willingness to go beyond the obvious and hunt for hidden patterns and relationships.

Dr. Don Porzio, IMSA Faculty

### **Fencing—This Session Is CLOSED**

Half-time Morning

This intersession is designed for all students interested in learning the sport of fencing, regardless of experience. The majority of the course will be devoted to developing the student's fencing skills and strategies through footwork, drills, and bouting (actual fencing), and familiarizing students with the rules of the modern fencing game. A few minutes each day will also be used to explore both the history behind the martial art of fencing and the structure of the modern fencing organization. We will be working with two out of the three modern weapons, foil and epee. Students will have the opportunity to acquire and practice new skills, bout with fellow students, and compete in a friendly tournament at the end of the week. While practices will be full-contact, students will be required to wear protective gear, including heavy jackets, masks, and gloves. An adult sponsor will also be present at all times to ensure the students' safety. All equipment will be provided. The intersession will be taught by current IMSA students with the assistance of their adult sponsor.

**Prerequisites:** All students must turn in a signed parent permission form by the first day of class.  
All experience levels are welcome.  
No cost.

Dr. Eric Hawker, IMSA Faculty  
Liana Nicklaus, Current IMSA Student  
Andrew Heuser, Current IMSA Student

### **Financial Skills for Life**

Half-time      Morning

Financial guru Suze Orman is fond of saying that how you take care of your money reflects how you live your life. Are you interested in living a good life? Do you want money to control you or do you want to be in control of money?

In this intersession we will look at managing your budget while in college, debit vs. credit cards and what to expect when you graduate. We'll learn about investing and navigate the mysterious maze of 401Ks, IRAs and purchasing your first home.

Successful professionals and individuals all succeed with strong financial skills, whatever their focus area. Gain comfort and decrease stress by managing your finances and being prepared for what life throws at you.

**Prerequisites:** None

Devora Goldenberg, Class of 1996

\* Staff Sponsor

### **Folding Art and Math Together—**This Session Is CLOSED****

Half-time      Morning

Origami is just about folding a flapping bird? Think again! This intersession is going to completely alter your perception of origami. You will learn about the ancient Japanese art of paper folding, modern origami, the scientific and mathematic applications of origami, and different types of origami such as wet folding, Kusudama, toilet paper origami, tessellation, and napkin folding. We will not only fold some seemingly complex but easy models, but also some designing methods origamists have been using to construct their models. We will then watch a movie called "Between the Folds" while eating pizza so you would not get your feet swept off the ground with an empty stomach.

**Prerequisites:** No prior knowledge or experience with origami is necessary. Anyone interested in origami and wants challenge is welcome.

Jisoo Kim, Current IMSA Student

Santina Lin, Current IMSA Student

Lucy Li, Current IMSA Student

Dr. Vince Matsko, IMSA Faculty

### **Food to Share: Catering an art show opening—**This Session Is CLOSED****

Half-time      Morning

Students will be engaged in preparing food for the IMSArt Exhibit '10, held during midday break of the Friday of Intersession in the IRC. Students will learn about menu planning, all aspects of food preparation, food safety and hygiene, as well as presentation and service. The food will likely be in the form of small appetizer-style finger foods (sometimes called "amuse"). These will not be your grandmother's hors d'oeuvres!

**Prerequisites:** Permission of either sponsor.

Jonathan Besancon, IMSA Faculty

Jean Bigger, IMSA Staff

## **IMSA Goes Bollywood-This Session Is CLOSED**

Half-time      Morning

Within the last decade, Bollywood films have made their way into the American cinematic domain, influencing films like the Academy Award-winning *Slumdog Millionaire*. The thematic structure, integral incorporation of music and dance, and vivid manipulation of color in Indian films are beginning to make a statement in American films. However, Indian movies have also been influenced throughout the years by American culture. Through the screening of classic and modern Indian films and American films, such as *Moulin Rouge*, *Slumdog Millionaire*, *Kuch Kuch Hota Hai* and others, we will discover the various influences these two cinematic centers have on each other.

**Prerequisites:** Fluency in the Hindi language is not required for this session. All films will be screened with English subtitles.

Akash Moradia, Class of 2009  
Travis Mui, Class of 2009  
Adrienne Coleman, IMSA Staff

## **Modes of Argument in Documentary Film**

Half-time      Morning

In this intersession we will analyze the ways in which documentary films make their claims about the world. Through a combination of film-watching and discussion, we will examine a range of documentary styles (including cinema verite, "docu-ganda", and documentary's comic progeny, mockumentary), and we will attend carefully to how these films set forth their arguments about the topics they are presenting.

**Prerequisites:** None

Dan Gleason, IMSA Faculty

## **Music Composition—This Session Is CLOSED**

Half-time      Morning

Have you ever wanted to write your own music? 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. Compositions can be written in any musical style and for any instrumentation and will be performed at the end of the week.

**Prerequisites:** INSTRUCTOR'S PERMISSION REQUIRED. Students should have basic proficiency in an instrument (which may be voice) and will need to assemble the ensemble (if necessary) for which they write the composition. Knowledge of basic music Theory is also required. Please see instructor for details.

Dr. Peter Dong, IMSA Faculty

### **Science Bowl**

Half-time      Morning

Science Bowl is an interscholastic competition in which students face off, in a game show format, to test their knowledge of biology, chemistry, physics, math, earth science and general science. Matches are comprised of 25 toss-up questions and follow-up bonus questions, and take about an hour to play. Show off your knowledge of science, learn something new when you hear an answer to a question that you don't know, and have some fun doing it!

**Prerequisites:**      SI Science Courses

Dr. Peter Clancy, IMSA Faculty

### **Web 2.0 in Education**

Half-time      Morning

One of the most exciting areas today is that of Web 2.0. What is it, you say? Well, the experts are still arguing about the definition, but it has to do with a more engaging, personal interactive web. Come and explore some of the most popular and free Web 2.0 tools that are used in education today. This will be a hands-on classroom experience and students will walk away with a set of tools in their arsenal to try in their classrooms for creative and innovative assignments. (Both students and parents must first sign a waiver allowing students to create an on-line account with an approved site.)

**Prerequisites:**      Students should have basic knowledge of operating computers.

Namrata Pandya, IMSA Faculty

### **You can have your cake and eat it too!**

Half-time      Morning

Students will learn the importance of good nutrition for optimal performance in everyday activities and sports. Students will learn where the ingredients go, how energy is made and how important it is get enough sleep for replenishment of the immune system. Body physiology will be discussed with respect to food breakdown.

**Prerequisites:**      Each student is expected to pay \$10 for supplies.

Mary Myers, IMSA Faculty

Dr. Sowmya Anjur, IMSA Faculty

## **HALF TIME SESSIONS / Afternoon**

### **Cartoonography and World Cultures This Intersession is Closed**

Half-time      Afternoon

Have you ever seen the Soviet version of Winnie the Pooh? Do you know what a Moomintroll is? Are you just dying to see the original Swedish short that Fantasia was inspired by? How about some of the very first examples of "random" humor from the 1990s' Romeo and Juliet as animated seals' Since the beginning of filmmaking, animation and cartooning has existed as a medium unto itself, and while the evolution of this art form has in many ways mirrored that of traditional drawn art and of filmmaking, the variation and stunning creativity of cartooning sets it apart entirely from more traditional formats. The purpose of this intersession is to allow you to explore the progression of animation world-wide. This intersession will present a variety of

cultures and artistic styles to be interpreted and compared. You will watch and discuss amazing, touching, beautiful, and hilarious films and shorts that you have never seen before, and find out things you never knew about spoons, talking fish, and traveling to Mars.

**Prerequisites:** None

Phoebe Barkan, Class of 2008  
Anastasia Rahlin, Class of 2008  
Audrey Wells, IMSA Faculty

**"Coins: Window on the Greek and Roman Worlds" This Intersession is Closed**

Half-time      Afternoon

Ancient coins, primary written sources, and archaeology are the three sources of our knowledge of the ancients. In this intersession we will use laboratory techniques to merge numismatics and archaeology to reveal what Greek and Roman coins can tell us of the ancients in history, art, religion, economics, society, military, agriculture, climate, metallurgy, and politics. Students will participate in the process by which coins become knowledge.

**Prerequisites:** None

Dr. Christian Nokkentved, IMSA Faculty

**Do Math with Godspeed (No Calculator) –This Session Is CLOSED**

Half-time      Afternoon

Soroban, or Japanese version of abacus, is a manipulative tool for calculation. In the past, soroban lessons were mandatory for elementary students in some parts of Asia. They first started addition, subtraction, multiplication, and then division. Each level is distinguished by number of digits and number of digits after decimal place in these elementary mathematical operations. More interesting, soroban is in fact a semi-concrete tool. Many soroban experts are also proficient in mental calculation, visualizing a soroban and working out the problem by moving their fingers. Although it takes years to become skilled in using soroban, we are IMSA Titans and with practice we are going to learn this in a week! You will learn how to do those mathematical operations with a soroban. With sufficient amount of practice, you will also learn how to use a soroban without physically using it. If we have time, we will have a mini contest and perhaps study a few advanced topics such as extracting square roots. This is a work-intense intersession.

Prerequisites: This session is not suitable for people with prior experience with a soroban.  
\$9.00 cost of a soroban.

Dr. Michael Keyton, IMSA Faculty  
Santina Lin, Current IMSA Student

**Evidence-Based Medicine-This Session Is CLOSED**

Half-time      Afternoon

This course will be an introduction to evidence-based medicine, with examples from the behavioral sciences and/or primary care, but with principles applicable to all medical disciplines. The course will be based on the Michigan State University online EBM course; though will not cover all the topics. Concepts taught in this will include sensitivity, specificity, positive predictive value, negative predictive value, incidence, and prevalence. Research design will be covered, including the randomized controlled trial, the case control study, and the cohort study. Basic statistics will include mean, median, mode, the normal curve, number needed to treat/harm,

relative risk, and absolute risk. Through these concepts, students will learn to critically evaluate the literature, include use of diagnostic tests and treatments.

**Prerequisites:** Completion of sophomore year

Dr. Heena Desai, Class of 1995  
\*Staff Sponsor

### **Get a Grant**

Half-time      Afternoon

Learn how to write a grant for your student club, organization or co-curricular activity. At the end of the class you will present your proposal, and the winning group will receive a grant (\$500-\$1000) to support your organization.

**Prerequisites:** Must apply as a group of two to four students from a club, organization or co-curricular activity that is either chartered through Student Council or sponsored by an IMSA department or program. Must obtain permission from your group's sponsor or advisor.

Amy Kinney, Class of 1995  
Jennifer Spuehler, IMSA Staff

### **High Stakes Entrepreneur: Try to Remain Calm This Intersession is Closed**

Half-time      Afternoon

Before you launch your first business, sharpen your entrepreneurial skills using fast-action business simulations and coolhunting software. It takes a lot of confidence and perspective to succeed in business today. And success often comes only as a result of costly failures. Taking part in realistic online simulations helps you learn from mistakes before they really become hard landings. A second challenge, 'this one real', is woven through the course: predicting the Best Picture nominees and winner at this year's Academy Awards. This requires coolhunting to track the buzz (identify emerging swarms) in the blogosphere. Coolhunters apply experimental software and social network analysis to tap into the thinking of creative swarms--networks of people whose collective efforts are forging tomorrow's innovations. That too is an essential ability for tomorrow's high stakes entrepreneurs.

**Prerequisites:** Students should bring their own laptops.

Carl Heine, IMSA Staff  
Jim Gerry, IMSA Staff

### **IMSA Swings!**

Half-time      Afternoon

Want to have a great way to meet people, get some exercise, and show off a bit on a dance floor? Come learn to swing dance! We'll be starting from the basics, so even if (especially if!) you've never danced before, don't hesitate to join us. By the end of the class, you'll be able to go out to swing dances anywhere and join in. And I do mean "anywhere": there are swing scenes in every major U.S. city, at tons of colleges, and in many foreign locales as well. Plus, many of the core ideas you pick up here (frame, lead/follow, connection) will be useful if you decide to learn another style of dance somewhere down the road. We'll be finishing off the week with a trip to one of Chicagoland's swing venues, so you'll have a chance to put your new skills to use and see other swing dancers doing their thing. Look forward to dancing with you in January!

**Prerequisites:** None

Valerie Young, Class of 2008  
John Holmstrom, Class of 2006  
\*Staff Sponsor

### **On and Off-Court Preparation for Tennis—This Session Is CLOSED**

Half-time      Afternoon

Students will explore and develop skills required to effectively create an individualized learning experience through guided practice of tennis skills, development and evaluation of a personal fitness plan to enhance a healthy lifestyle.

**Prerequisites:**      Tennis Racket Athletics shoes Athletics pants/shorts (with pockets) Athletics shirt - No experience required.

Dan Gilford, IMSA Resident Counselor  
David Lundgren, IMSA Faculty  
Gary Sheng, Current IMSA Student  
Nathan Yan, Current IMSA Student

### **Particles of Truth: A Study of Physics and Philosophy-This Session Is CLOSED**

Half-time      Afternoon

A slow neutron collides with a nucleus of uranium-235. The nucleus splits into barium and krypton nuclei, releasing more neutrons and significant energy. Physicists observe the process with a variety of instruments, and apply the results to a growing consensus about the nature of nuclear reactions and the feasibility of nuclear energy. However, a host of related problems present themselves. Does the observation of repeated events actually support predictions of future events? Does the universe really conform to principles of cause, effect, and mathematical natural law, or does humanity merely impose such categories upon nature in the hope of understanding it? To what extent does the desire of the physicists to understand phenomena affect their understanding? To what extent does the mere observation of phenomena define those phenomena? And for that matter, is it really ethical to pursue an understanding of matter that could result in weapons capable of destroying cities and killing millions?

Complex questions. We will explore them in January!

**Prerequisites:**      Consciousness and zeal

Dr. Rob Kiely, IMSA Faculty  
Dr. Peter Dong, IMSA Faculty

### **The Foundations of Learning--Developing a hands-on science curriculum for youth.**

Half-time      Afternoon

The JCC Garoon Gateway to Science is in the building stage at a summer camp in Lake Zurich. The Gateway is a 35 exhibit, outdoor, hands-on science center designed to stimulate children of ages 4-12. The mission of the Gateway to Science is to promote science and technology as important tools that help children and teens understand themselves and the world they live in using experiential, non-traditional, creative activities. This intersession will focus on the development of curriculum for a few of the exhibit's/features of the Gateway. Students will get a chance to hear about the gateway and then select one feature that interests them. The week will focus on developing curriculum that is grounded in age-appropriate learning standards. Students

will get a chance to test their curriculum. The week will conclude with a presentation of the developed curriculum proposals to the Director of JCC Camping and the Director of the camp at which the Gateway is being built. Day to day activities will consist mostly of engaging group work.

**Prerequisites:** None

Kevin Crews, Class of 2009  
\*Staff Sponsor

**The Tabernacle of Useless Knowledge—This Session Is CLOSED**

Half-time          Afternoon

Ever wanted to know what physical features indicate a Native American heritage? The most popular baby names of 1994? How to build a battery out of a penny? What it actually means to be "hoist" by your own "petar"? Why Wint-O-Green Lifesavers actually do spark when chewed? If you are the sort of person who loves trivia, glories in discovering the bizarre and unknown, who sits in the reference section of a bookstore and just browses, trolls the internet looking for the answer to that ONE question that haunts you, or simply loves discovering hilarious and improbable facts about life, the universe, and everything, The Tabernacle of Useless Knowledge is the Intersession course for you. This course will bring together devotees of reference books, factoids, miscellany, and apocrypha in order to discover the kind of information that makes people fascinating at dinner parties and essential in a game of Trivial Pursuit. Covering both the surprisingly serious and the tongue-in-cheek, this course is a celebration of the sort of people IMSA brings together -- knowledge-hunters and intellectual snoops of all kinds. Bring your pet area of expertise and your hunger to know more about the rest of the strange and wonderful world we inhabit. It could be a very bumpy ride.

**Prerequisites:** Students must write a paragraph about themselves, describing a particular area of knowledge they're passionate about -- we need the idiosyncratic and eccentric as well as the scholarly for this course to truly function. The teacher strives to bring together the broadest possible range of students who can contribute to our daily thematic explorations of science/math, the social sciences, arts and entertainment, literature and language, and the all-mighty Other. The teacher will contact students to schedule in-class presentations for the course based on students' interests in advance of Intersession week. Only students with a love of the obscure and bizarre in human knowledge need apply.

Tracy Townsend, IMSA Faculty

**HALF TIME SESSIONS / Evening**

**A Window to the Soul: Views of Humanity in Western Art**

Half-time          Evening

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? In this course, we will look closely at fifteen depictions of humanity, drawn from one thousand years of European art. We will examine kings and queens, scholars and peasants, conquerors and courtesans. In the process, we will explore the ideas and influences that shape each work, and trace the evolution of European ideas of human identity.

**Prerequisites:** Introspection

Dr. Rob Kiely, IMSA Faculty

### **Gandhi and His Antagonists**

Half-time          Evening

By acclamation, Mahatma Gandhi is one of the greatest political leaders in modern world history. But just as in the American context, those with an appreciation for Indian history have a tendency to paper over disagreements among the nation's great statesmen. In this course, we aim to bring those disagreements -- and the fevered debates that marked them -- to life. After an overview of Gandhi's intellectual genealogy, we will examine Gandhi and his ideas in relation to his intellectual foes. We will consider Rabindranath Tagore, the Nobel laureate in literature who disagreed sharply with Gandhi's view of technology and modernity; Dr. B. R. Ambedkar, the jurist and leader of India's lower castes, who saw Gandhi's Hinduism as incompatible with the eradication of untouchability; and Muhammed Ali Jinnah, the founder of Pakistan who saw no place for Muslims in an India whose independence movement was held together by Gandhi's forceful, if idiosyncratic, Hinduism. We will also examine the friendly fire aimed at Gandhi, as even his closest allies, like the first Indian prime minister, Jawaharlal Nehru, found occasion to disagree with him sharply.

**Prerequisites:**          No background in either political philosophy or Indian history is required for this intersession -- only an interest in India and a love of discussion and debate. Students should bring their own laptops.

Paras Bhayani, Class of 2005  
Vijay Warriar, Class of 2005  
Peg Cain, IMSA Faculty  
\*Staff Sponsor

### **Math Circle**

Half-time          Evening

Math Circle gives students a glimpse of modern mathematics by providing introductions to topics of interest in current research areas. This intersession will extend the already existing club and look into advanced mathematics at a deeper level.

**Prerequisites:**          While accessibility of material is stressed, results covered in previous meetings will be assumed (review materials will be provided), so optimally, participants should be members of Math Circle. All participants need to be approved by one of the Intersession teachers.

Alina Kononov, Current IMSA Student  
Vlad Kontsevoi, Current IMSA Student  
Dr. Steve Condie, IMSA Faculty

## **OFF CAMPUS TRIPS**

### **Building Houses, Building Hope - ~~SESSION CLOSED~~**

Off-Campus

Building Houses, Building Hope! IMSA's Habitat For Humanity Club is hosting their 11th Collegiate Challenge trip traveling to Louisiana. Gain hands on construction, building and landscaping

knowledge. Interact with Habitat families and volunteers. Give back to a community in need! And enjoy a week in the sunshine with your fellow peers!

**Prerequisite:** Selection is based upon application and attendance at pre-trip planning meetings.  
\$250-\$300

Linsey Crowninshield, IMSA Staff  
Tony Petraitis, IMSA Resident Counselor  
Curtis Boyd, IMSA Resident Counselor

### **Paris 2010 - SESSION CLOSED**

Off-Campus Trip

Students will spend 8 days in Paris visiting historically and culturally significant sites, interacting with French people, and experiencing everyday Parisian life.

**Prerequisite:** Preparation includes three required evening meetings on cultural and travel expectations, and research. The Paris experience is open to students presently enrolled in a French course. An application essay (in English) will be used in the selection process. (Note: due to time constraints, the selection process was publicized and completed earlier this fall).

\$2300 plus expenses for lunch and dinner, and some cultural events. Additional costs will vary according to the individual. Detailed information was provided in the letter and itinerary sent to all French students and their parents. Additional costs may include the fee for a U.S. passport, if the student does not already have one.

A deposit of \$500 per student was required. Dates for the trip: Saturday, January 9, 2010 - Sunday, January 17, 2010.

Brenda Crosby, IMSA Faculty  
Willa Shultz, IMSA Faculty

### **Peru Service Intersession - SESSION CLOSED**

Off-Campus

Nuestros Pequeños Hermanos ('Our Little Brothers and Sisters') was founded in 1954 by Father William Wasson; since then over 15,000 children have grown up in the NPH family, which now operates homes in nine countries: Mexico, Bolivia, Honduras, Haiti, Nicaragua, Guatemala, El Salvador, the Dominican Republic and Peru. Nuestros Pequeños Hermanos is a charitable organization serving orphaned and abandoned children in Latin America and the Caribbean. Its mission is to provide these children with shelter, food, clothing, healthcare and education in a family environment. Today, over 3,300 children are being cared for in a loving, secure environment.

During the 2008 and 2009 Intersession's, 3 staff members and a total of about 20 students had the opportunity to visit and volunteer at Nuestros Pequeños Hermanos in Honduras. The weeks spent there were a life changing experience for both students and staff, inspiring students to seek out service opportunities abroad as well as the study abroad programs available at the colleges they applied to.

Due to the political situation currently in Honduras, we began looking at the other NPH communities around the globe and settled on Peru! Located less than two hours from the nation's capital, Lima, NPH Peru is a thriving community. At this time, almost 80 children call NPH Peru their home. NPH Peru is smaller than NPH Honduras, but the impact we can make will be even greater. NPH Peru is currently working on building their permanent home in the heart of Ca'ete, 40 minutes west of Lunahuan', which is even closer to Lima than they are now. Part of the work we would be doing on this trip, in addition to working with the students and assisting in the community, would be helping to complete their new home!

**Prerequisite:** Approximately \$1200 per student (this will include plane ticket, lodging and food for the week)

Kristen DeBellis, IMSA Resident Counselor  
Lauren Lutz, IMSA Resident Counselor

**'Vamos a España! - SESSION CLOSED**

Off-Campus Trip  
Full-Time

Explore Madrid and surrounding areas (Toledo, Avila, Segovia, etc.) as you immerse yourself in the language and the culture of Spain. The trip will include sightseeing, cultural, and educational activities.

**Prerequisite:** Open only to students enrolled in Spanish courses at IMSA (preference will be given to those in upper levels), or to native speakers of Spanish (if space is available).

Estimated cost: \$1,600 (includes airfare, lodging, travel and some meals). Does not include some meals or some museum/admission charges.

Jose Palos, IMSA Faculty  
Dr. Aracelys Rios, IMSA Faculty  
Minerva Juarez, IMSA Staff