

# INTERSESSION 2012

In order to support students from the Class of 2014 in meeting their computer science requirement, the following opportunity is offered during intersession week. This is an **additional** opportunity during intersession week and participation in this session does not fulfill any intersession requirements. No sign-up is required to take advantage of this opportunity.

## **Computer Science Requirement – Class of 2014**

A semester of a computer science course at IMSA or passing the computer science proficiency test is a graduation requirement for the class of 2014. The review unit for the CS proficiency test is available to students on Moodle (IMSA non-credit courses--> Review material for CS proficiency test). During the intersession week, Dr. Pat and Ms. Pandya will be available on Monday and Tuesday between 8:30am - 11:30am, to answer any questions students may have about the review material in room A152. Tests will be administered at 6:00pm on Wednesday, 1:00pm on Thursday, and 8:30am on Friday in the A152. Students should allow for a little over two hours for the test. The review material is just a guideline for the test; students are expected to have general knowledge of computer science to be successful on the test. Students who elect to take the proficiency test and are unable to take it during intersession week may see Dr. Pat or Ms. Pandya in the Math Office to make alternate arrangements.

The following two intersession experiences will be required for some students. Students will be notified of required participation no later than December 9, 2011. These experiences will not be listed as a choice for students in the intersession request form, but are offered in the catalog for informational purposes.

## **Mathematics**

Part time                      Morning                      8:30 am – 11:30 am

This intersession is designed to prepare students for Spring mathematics courses. Students who are below a 73% (C- or D) in Geometry, MI 1-2, MI-2, MI-3, or MI-4, through the instruction and guidance of members of the math faculty, will be given support in study skills and content, and will generate an academic plan that will be monitored for effectiveness in the upcoming semester. This intersession is a requirement for students who are performing below the threshold (73%) in their Fall Geometry, MI 1-2, MI-2, MI-3, or MI-4 math courses or as recommended by their teacher or Academic Support Team.

Students will be notified of their required participation in this intersession by December 9, 2011.

**Prerequisite(s)**                      Students at risk (73% or below) in Geometry, MI 1-2, MI-2, MI-3 or MI-4 and on a case-by-case basis as recommended by their teacher or the Academic Support team will be required to participate.

Janice Krouse, IMSA Faculty  
Don Porzio, IMSA Faculty  
Ruth Dover, IMSA Faculty

## **Science**

Part time                      Afternoon                      1:00 pm – 4:00 pm

This intersession is designed to prepare students for Spring SI science courses. Students who are below a 73% (C- or D) in SI-Biology, SI-Chemistry or SI-Physics, through the instruction and guidance of members of the science faculty, will be given support in study skills and content that will be encountered in their Spring SI class(es). Students will generate an academic plan that will be monitored for effectiveness in the upcoming semester. This intersession is a requirement for students who are performing below the threshold (73%) in their Fall Scientific Inquiries course(s) or as recommended by their teacher(s) or Academic Support team.

Students will be notified of their required participation in this Intersession by December 9, 2011.

**Prerequisite(s)** Students at risk (73% or below) in SI-Biology, SI-Chemistry or SI-Physics and on a case-by-case basis as recommended by their teacher or the Academic Support team will be required to participate.

Megan Schrementi, IMSA Faculty  
Anita White, IMSA Faculty  
Mark Carlson, IMSA Faculty

**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.**

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

### **Basic Open Water Scuba Certification (PADI)**

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 technique and skills, equipment, and our world underwater.

**Prerequisite(s)** Must be able to swim comfortably. Must have appropriate mask, snorkel, fins, and boots. Pre-class homework: Read the PADI Open Water Diver Manual and complete Knowledge Reviews.

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

Mike Nagy, Outside Advisor  
Mike Brutlag, Outside Advisor  
IMSA Sponsor, TBD

### **Chicago Museum Trips**

Full time Morning/Afternoon

The Chicago Museums intersession will include daily excursions to one or more Chicago cultural sites. Through a series of guided visits students will learn about art, the history of surgery, Chicago's skyline, and local immigrant culture. Two of these daily trips will also include the visiting Russian students.

**Prerequisite(s)** Under \$75 per student

Eric Smith, IMSA Faculty  
Claire Zhang, Class of 2011

### **Cooking with Healthy, Locally-produced Sustainable Food**

Full time                      Morning/Afternoon

Students will create hors d'oeuvres to serve at the opening of the IMSArt Exhibit '12 on the final day of Intersession in the IRC. The recipes we use will feature foods that are locally grown—even by us here at IMSA. For example, we will use microgreens or hydroponically grown greens. When we say healthy and sustainable, one of the things we are speaking about is “plant” as opposed to “meat”. This means that much of the food we produce will be either vegetarian or vegan. The primary focus for students will be on food preparation, but they will also be engaged in all aspects of planning for the exhibit opening event, such as publicity and e–invitations, posters and signage, and event set–up and serving the food.

**Prerequisite(s)**      A true interest in food preparation, event planning and presentation. Willingness to take on challenging tasks.

Jonathan Besancon, IMSA Faculty  
Jean Bigger, IMSA Staff

### **Cultural Competency**

Full time                      Morning/Afternoon

The purpose of this intersession will be for students to understand how others are treated and be able to help those with certain disabilities. The students will learn about past treatments of people with disabilities and will work with people with disabilities. Students will gain an appreciation for people who are different. Students will spend three days at a local school. The school will be in Aurora at Hope D. Wall. The culminating activity will be part of a Special Olympics push that is called “Spread the word to end the Word.” There will be a day you will lead in March which is the official date for the campaign and the world wide movement.

**Prerequisite(s)**      None

David Lundgren, IMSA Faculty  
Reuel Abraham, IMSA Resident Counselor

### **Exploring Culture and Change in Chicago's Neighborhoods**

Full time                      Morning/Afternoon

This will be full-time week long intersession where students will dive into the history of Chicago with particular emphasis on Chicago neighborhoods. Students will be traveling three days (Monday, Wednesday, and Friday) to various neighborhoods throughout Chicago like Chinatown, Pilsen, Bronzeville, Wicker Park, Devon Ave, and Polonia Triangle. While traveling, students will explore restaurants, museums, architecture, and local places of worship. During these visits, students will examine the neighborhood from a cultural and historical perspective. On their days on-campus (Tuesday and Thursday), students will spend time discussing their observations of the neighborhood, examine some articles about the neighborhood, explore the history of Chicago neighborhoods, discuss “gentrification,” explore each neighborhood’s transitory ethnic population, and finally predicting Chicago’s future cultural shifts. The intersession is designed for students who are eager to explore the city’s uniqueness through a different lens.

**Prerequisite(s)** Students must be in good academic standing and must also have no prior Tier II or Tier III discipline infractions.

Only open to students who did NOT attend this session in 2011, in order to give others an opportunity.

\$18 for 3 round trips on the Metra, plus \$40-45 for 3 meals in Chicago.

Emily Todd, IMSA Resident Counselor  
Caitlin McMahon, IMSA Resident Counselor

### **Fundamentals of Contract Bridge**

Full time Morning/Afternoon

Students will learn the modern game of Contract Bridge.

**Prerequisite(s)** None

Michael Strong, Outside Advisor  
Micah Fogel, IMSA Faculty

### **Hands-on Engineering; Designing and Building a Robot for FIRST 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 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 possibly a second in another city; and if our team qualifies, to the championship in St. Louis.

**Prerequisite(s)** Students should have participated in the first semester robotics activities or need permission from Mr. Gerry.

Jim Gerry, IMSA Staff  
Sowmya Anjur, IMSA Faculty  
Scott Page, Class of 2009

### **Humanoid Robotics**

Full time Morning/Afternoon

Students will be introduced to some basic concepts of humanoid robotics and have the opportunity to do projects on NAO, a small humanoid robot with 25 degrees of freedom and a wealth of sensors made by Aldebaran Robotics (<http://www.aldebaran-robotics.com>). Students will be given the tools to do cool stuff with the robot, then work in small groups with a robot to design and execute a project. There are multiple points of entry for programming the robot's behavior (from drag and drop to a full C++ software development kit), and many possible directions for projects, from dancing and human interaction, to manipulation and artificial intelligence.

**Prerequisite(s)** Programming ability is NOT a prerequisite, but students who know Python or C++ will be able to apply their knowledge to robot programming. Depending on the specific topics students pursue, various math or computer science background could be helpful, but there are no specific prerequisites.

Andrew Stout, Class of 1999  
Pat Patankar, IMSA Faculty

### **The Illinois Country**

Full time Morning/Afternoon

This intersession will introduce students to the early history of Illinois and its relationship to the more familiar story of the "13 colonies." In the seventeenth and eighteenth centuries, Britain, France, Spain, the Anglo-Americans, and the native peoples of the Mississippi Valley all battled for possession of the region,

the "Pays des Illinois," and this rivalry helped trigger the Seven Years War and the American Revolution. This course will examine this contest and French and Indian culture which grew up in its shadow.

**Prerequisite(s)** \$10.00 per student for museum admission.

Claiborne Skinner, IMSA Faculty

**Impact: Me**

Full time Morning/Afternoon

This will be an exploratory course in which students will learn about the ways in which their everyday lives impact the world around them. Four areas will be highlighted: clothing, food, energy, and transportation. Students will learn about what is required for us to have these commodities. How do the clothes I wear, the food I eat, the energy I consume, and the way I get around impact the world and the people in it? This class is meant to be engaging. Books, articles, and documentaries will be used in the classroom to serve as teaching tools. In the afternoon, we will be traveling to a place that corresponds to that morning's topic. For example, on the day we discuss clothing we will travel to a fair trade clothing store. On the last day of class, we will have an overview of the week. On this day, students will also participate in a 'debate' in which they will be assigned a position on one of the issues that they will need to argue for. The purpose of this is for students to understand multiple perspectives of the issues at hand, which will urge them to find and understand their own personal positions.

**Prerequisite(s)** Costs will be minimal. Less than \$50 may be needed to purchase course materials and pay for their meal on the day that we travel to a local restaurant.

Jared Sanders, Resident Counselor

**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, and experience the richness of residential life at IMSA.

**Prerequisite(s)** This intersession is limited to pre-selected students enrolled in Russian II or Russian III.

Paavo Husen, IMSA Faculty

**Infectious Diseases as Depicted in Cinema**

Full time Morning/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.

**Prerequisite(s)** Previous biology course (SI-Bio and/or pre-IMSA biology course), helpful course: Microbes and Diseases  
Students will be expected to fully participate in in-class discussions, and will be required to write a short paper on a human infectious disease of their choosing.

Dr. Edwin M. Goebel, IMSA Science Faculty Emeritus

### **Introduction to Functional Programming**

Full time                      Morning/Afternoon

Learning to program is like learning to swim. No amount of theory is a substitute for diving into the pool and flailing around in the water gasping for air. It is not until you get beyond the messy business of entering a program, and getting it through the compiler, that you can even start to think about the meaning of the different language constructs. This course will focus on functional programming concepts. Most developers are accustomed to programming in the imperative/procedural style. To switch to developing in a pure functional style, they have to make a transition in their thinking and their approach to development. The students in this class will have a leg-up, in that they probably don't already know OOP.

**Prerequisite(s)**      Completed one year of any math track at IMSA. Modest prior programming experience would be helpful, particularly Mathematica, but no prior experience is assumed.

Purchase of print books is optional for student.

Christopher Legan, IMSA Parent  
IMSA Sponsor, TBD

### **KINO KULTURA: Russian Culture through Cinema**

Full time                      Morning/Afternoon

In the century following its inception, cinema has been used to communicate all sorts of ideas, emotions, and stories. Film engages its audience in a way that enables them to experience the terror of being chased by a large boulder, the unbelievable grief of losing a friend in battle, and the thrill of falling in love. Its unique ability makes it a particularly effective medium for revealing aspects of history and cinema, especially in Russia. With such a diverse and intense history, this vast nation has inspired the films of many great filmmakers. Join us as we examine themes in Russian history and culture through the lens of cinema!

**Prerequisite(s)**      A love of art, history, and/or Russia.

Tabbey Walquist, Class of 2009  
IMSA Sponsor, TBD

### **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 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 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: \$30.00 for a traditional, white uniform (mandatory, unless the student owns one), \$3.00 for a mouth guard, \$5 for a cup & supporter (men only), and a \$20.00 equipment fee (mandatory).

The estimated cost is \$53.00 per female participant, and \$58.00 per male participant. Students are responsible for covering these costs.

Cynthia Nguyen Dang, Class of 2003  
Dean Dieker, Class of 2003  
Michael Driscoll, Class of 2007  
Danielle Strickland, Class of 2010  
Kyle Skoog, Current IMSA Student  
Dave Evenson, IMSA Staff

### **Mozart, Musculature and Mathematics**

Full time Morning/Afternoon

Can opera (hook your attention through a catchy sentence like this one)? How does an historic style of art integrate physical and mathematical properties such as resonation, amplitude and anatomy? We will explore the artistic and scientific aspects of opera through Mozart's works, including an evening performance of "The Magic Flute" at the Lyric Opera of Chicago.

**Prerequisite(s)** Costs: \$20-\$35/student for opera ticket (final cost subject to group pricing at Lyric Opera of Chicago)

Alexandra Plattos, Class of 2007  
Everett Brokaw, Class of 2007  
IMSA Sponsor, TBD

### **Outlaws, Indians, and Entrepreneurs: Myth and Reality in the Old West**

Full time Morning/Afternoon

Thomas Jefferson once predicted it would take a thousand years to settle the Far West. In 1893, historian William Jackson Turner declared the western frontier "closed." In roughly a single generation—1865-1890—a cast of colorful characters coalesced to create a compelling mythology of "Western American-ness": steel-eyed gunslingers, ferocious Indians, cowboys, stolid sod-busters, stalwart lawmen, and some daring, unladylike women. Many have heard of Billy the Kid, Jesse James, Wild Bill Hickok, Calamity Jane, and Buffalo Bill Cody. But what are the facts behind these characters? And with all this apparent lawlessness, how was the West settled so quickly? What about the less colorful—but nevertheless indispensable—entrepreneurs? The truth is, along with the fabled characters came windmills, feedlots, and a barbed-wired, iron-railed umbilical cord stretching from northern Illinois to the Western Great Plains. While spending time sifting reality from myth, we will still enjoy the romance of the Old West in film, painting, and historical criticism.

**Prerequisite(s)** None

Jean Kadel, IMSA Faculty

### **A Powerful New Programming Language**

Full time Morning/Afternoon

What happens when you focus on creating a programming language that is expressive as possible? You get a language like Clojure: a modern Lisp that allows programmers to do in one line what other languages spend whole pages on. Instead of trying to figure out how to fit your solution to the problem into a tight syntax, you can focus on what really matters: solving the problem. This intersession will be devoted to helping students learn how to learn Clojure on their own, and how to use it to solve challenging problems. The class will be divided into equal parts review of how to program, and time to experiment with your own ideas. Finally, the class will culminate in 24 hours of time to work on student-defined projects and a Demo Day where students can show their projects to other students.

**Prerequisite(s)** Competency with computers and interest in programming.

Zack Maril, Class of 2010  
Micah Fogel, IMSA Staff

### **Physics of Atomic Nuclei**

Full time Morning/Afternoon

Students will receive background information on nuclear astrophysics through interactive lectures and conduct self-initiated experiments using cosmic ray detectors. The students will measure the lifetime of the muon, in addition to designing their own experiment with a CRD. They will upload data through QuarkNet resources and present their findings on the last day.

**Prerequisite(s)** Eagerness to learn about nuclear astrophysics, **Students should bring laptops.**

Micha Kilburn, Class of 1995  
Thomas Loughran, Outside Advisor  
IMSA Sponsor, TBD

### **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 who are actively pursuing an SIR investigation may choose to pursue that investigation for Intersession, either full-time or half-time. Students will need to provide their own transportation to off-campus SIR sites.

**Prerequisite(s)** Good standing in SIR, permission of the SIR coordinator and the SIR advisor.  
**Students must provide their own transportation to off-campus SIR sites.**

Judy Scheppler, IMSA Staff

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

### **American Red Cross First Aid, CPR& AED (Adult, Infant& Child) 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. This program will give individuals the knowledge and skills necessary to prevent, recognize and provide basic care for breathing emergencies and cardiac emergencies in infants, and perform cardiopulmonary resuscitation (CPR) and use an automated external defibrillator (AED) for children and adults of sudden cardiac arrest until advanced medical personnel arrive and take over.

**Prerequisite(s)** \$40.00 per person

Billy Gentzler, IMSA Faculty  
Mary Myers, IMSA Faculty  
Sowmya Anjur, IMSA Faculty

### **AP Chemistry Intersession**

Part time Morning

Students will be assisted in preparing for the AP Chemistry Exam. Many practice materials will be provided, including practice multiple choice and free response questions.

**Prerequisite(s)** Students should buy an AP Chemistry Test Preparation book of their choosing (for example, Barrons). These books are available online and at bookstores.

David DeVol, IMSA Faculty  
Deb Scarano, IMSA Faculty

### **Arrangement and Orchestration**

Part time Morning

Very few songs are written for the instruments or performers you actually need. Most of the time, you need to adjust the music to fit the instruments, players, and occasion. But arrangement of a song is more than just transcribing notes; every arrangement is a composition in itself, requiring just as much skill and care as the original. Students in this course will learn about the craft of arrangement and orchestration, how to use the qualities of different instruments to their best potential, and how to adjust the harmonic or rhythmic structure of a song to suit their needs. In this course, students will create, perform, and record an arrangement of an existing song as they learn about the often-neglected art of arrangement.

**Prerequisite(s)** Proficiency in an instrument (which may be voice) and the ability to comfortably read and write music.

Peter Dong, IMSA Faculty

### **Beginning European Knitting**

Part time Morning

Are you sad that you missed an opportunity last January to learn how to knit? Here is your chance!! Sign up for the Beginning European Knitting Intersession and 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 knit in the American way MAY NOT sign up. Students who participated in this Intersession last year also MAY NOT sign up. Only non-experienced knitters may sign up for this intersession. \$10.00 invested by each participant (prior to the intersession) in one pair of knitting needles (sizes 5, 6, or 7 preferred) and a skein of yarn. Both are available at any craft store.

Julia Husen, IMSA Staff

### **Berlin: A City Divided**

Part time Morning

After World War II, Germany became the main stage for the political struggles between East and West that would define an era. Students will be introduced to the historical context of the division of Germany and its effects on culture, art and national identity with an emphasis on the divided capital, Berlin. Using films, articles and pieces of art, we will explore the impact of division and discuss how Berlin achieved its unique place within the historical and cultural landscape of modern Europe. Articles and discussion will be in English and films will have English subtitles.

**Prerequisite(s)** An interest in post-war European history, politics, art and culture.

Hilary Dietz, Class of 2009  
IMSA Sponsor, TBD

### **Bird Watching and Bird Behavior**

Part time Morning

Students in this intersession will develop skills to identify birds by sight and sound. They also will explore various aspects of the behavior and natural history of birds. One or more field trips to nearby natural areas may be offered (weather permitting).

**Prerequisite(s)**      None

Joe Traina, IMSA Faculty

### **Chamber Together!**

Part time                      Morning

Students will get in small ensembles to master a chamber music piece and perform at the art exhibition.

**Prerequisite(s)**      Students must play instruments at intermediate level  
\$5 fee for activities and possible field trip fee if available

Mary Beth McCarthy, IMSA Faculty

Jeong Choe-Hwang, IMSA Faculty

### **Closeted History: LGBT Culture in the United States**

Part time                      Morning

This intersession will give students a brief survey of the history of LGBTs in the United States and the development of the equal rights movement. We will discuss important figures and events leading up to the present, and then discuss the present itself: what it is like to be LGBT in America today, including related organizations, subgroups, and people.

**Prerequisite(s)**      None

Meg Welter, Class of 2009

IMSA Sponsor, TBD

### **Essay Writing for the Non-writer--Writing Made Easier & Fun (Relatively)**

Part time                      Morning

Do you dread every writing assignment? Is there a magic formula to writing an essay? Are you a student who has a math or science focus and who feels highly stressed in classes that require writing of persuasive essays? This intersession focuses on the science of writing, not the art. We will cover every step from analysis to research to writing from a practical, logical perspective. In addition to in-class writing fun, each student will write a college essay for the college of their choice. The time is now to enhance a communication skill that is critical to college admission, college and graduate studies, and nearly every profession.

**Prerequisite(s)**      None

Anita D'Arcy Zeifert, Attorney and IMSA Parent

IMSA Sponsor, TBD

### **Evolution of the Symphony**

Part time                      Morning

The major musical genre for orchestras is the symphony. It came into existence in the early part of the 18th century and has subsequently evolved significantly. This intersession will investigate at least five complete symphonies and parts of several others to discern the structural differences that characterize the works. Among the composers mentioned will be Haydn, Mozart, Beethoven, Berlioz, Tchaikovsky, Taneyev, Bruckner, Mahler, Nielsen, Sibelius, Prokofiev, Shostakovich, Schnittke, Panufnik, and Kancheli.

**Prerequisite(s)** Only prerequisites are an interest in listening to and learning about the symphony, but knowledge of musical terminology or perfect pitch is beneficial.

Michael Keyton, IMSA Faculty

**Panoramic Landscape Photography**

Part time Morning

Students will survey the history of panoramic photography and create their own landscape panoramas using current digital technology.

**Prerequisite(s)** Students must supply their own functioning digital camera.  
\$15 per student to cover costs of ink jet cartridges, mat board and photographic paper.

Clay Sewell, IMSA Faculty

**Privacy in the Digital Era**

Part time Morning

Explore the concepts of digital identity and privacy in the modern world. We will look at topics such as: will your Facebook postings today affect your ability to get into college or find a job? How do photo tags and public cameras track you and your friends? Can my mobile device or GPS tell authorities about my movements or implicate me in a crime? What information does Google know about you and how did they learn? After looking at these topics, we will suggest strategies to lower your overall online risk profile.

**Prerequisite(s)** None

Brian Patterson, Class of 1989  
IMSA Sponsor, TBD

**Science Bowl**

Part 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 and space science and energy. Matches are comprised of toss-up questions and follow-up bonus questions, played in two 8-minute halves. 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!

**Prerequisite(s)** SI Science Courses

Peter Clancy, IMSA Faculty

**Science of Golf**

Part time Morning

This intersession will use golf to teach students about basic and advanced topics in physics. The students will use the text "The Search for the Perfect Swing". Topics covered will be velocity, acceleration, vectors, impact and pendulums, both single and double. The students work on the physics concepts at the beginning of each day, and then travel to Rich Harvest Farms to practice in the indoor training facilities and with simulators.

**Prerequisite(s)** Students need to purchase the book, "In Search of the Perfect Swing" \$16 on Amazon.

Adam Kotlarczyk, IMSA Faculty  
Branson Lawrence, IMSA Faculty

### **So You Want to be a CEO**

Part time Morning

Learn how real 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 discussion and inquiry supported by applied mathematical tools (static, dynamic, difference and stochastic equations). Today's business environment is becoming increasingly complex, characterized not only by the use of sophisticated innovations in higher sciences such as Information Technology, Telecommunication, Biotechnology, Nanotechnology, etc., but also by • Socio-economic factors imbedded in today's Global economies; • Governmental policies and regulations that impact the strategy and behavior of the enterprise; • Sources of uncertainty and dynamics and its effects on the Business; • Product-cycle concepts to capture value in order to effect changes over time; • Industry standards that traditionally have been treated as constraints and now are treated as design variables. You will learn how to manage a complex business, taking into consideration all the factors listed above, along with learning how to understand and optimize the business for maximum performance. You will develop a practical understanding of Income Statements, Balance Sheets, Cash flow analysis, "Net Present Value", Strategic Planning, and Decision Methodology.

**Prerequisite(s)** None

Carl Heine, IMSA Staff  
Dr. Moises Goldman, Outside Consultant

### **Swimming for a Lifetime of Fitness**

Part time Morning

Swimming for a Lifetime of Fitness will teach students how to swim with little or no prior experience necessary. This intersession course will teach the students how to swim all four competitive strokes, elementary backstroke and sidestroke, give them an appreciation for the mental and physical benefits of swimming, and provide them with knowledge of swimming terms and opportunities to continue swimming. The classes will start out in the classroom to teach information about swimming for 30 minutes before the students go to the pool. The students will then have 2 hours of time in the pool to develop and refine their swimming technique. It will focus on teaching the basic motor movements for each stroke and increasing endurance levels.

**Prerequisite(s)** Only open to students with little or no prior swimming experience.

Kevin Statler, IMSA Resident Counselor  
Julie Polz, IMSA Staff  
Brooke Schmidt, IMSA Faculty

### **30 Rock and Philosophy: We Want to Go to There**

Part time Morning

Students will through the lens of the popular TV show "30 Rock" work to construct philosophical understanding on important topics in the discipline. The primary vehicle will be the text "30 Rock and Philosophy" from the Wiley series of books and selected episodes of the show.

**Prerequisite(s)** Students should be familiar with the TV show "30 Rock"

Students must have a copy of "30 Rock and Philosophy" ed. J. Jeremy Wisniewski, published by John Wiley and Sons, Inc. ISBN: 978-0-470-57558 (est. cost \$12).  
Can be a library copy.

Lee Eysturlid, IMSA Faculty

Leah Kind, IMSA Faculty

**PART TIME SESSIONS, Afternoon  
1:00 pm – 4:00 pm**

**Anatomy of a Learning Network**

Part time                      Afternoon

In recent news articles, debates have challenged the quality of online classes vs. face-to-face. Participants will analyze the quality of several current online learning experiences and discover if they can create their own. We'll explore several learning network styles and "classrooms" in hopes of helping to navigate IMSA's potential new online frontier. Are learning networks the next classroom?

**Prerequisite(s)**        Previous work with the Kids Institute or web/tech classes

Tracy Miller, IMSA Staff  
Brenda Sumbry, IMSA Staff

**Chainmaille Jewelry: A Medieval Art Made Modern**

Part time                      Afternoon

Do you love the romanticized glory and bloodshed of the medieval era? Perhaps you'd like to be a craftsperson during the 13th century? Do you want to learn the history of chainmaille armor, how maille is made, and ways to turn those ideas into jewelry for yourself or friends? This course will explore the history of chainmaille armor worn by the Celts, Romans, Vikings, Ottomans, and Japanese. We will examine archaeological finds, consider the practicality of chainmaille as armor, and examine the working conditions of mailers. During the artistic portion of the course, each student will make six varying projects suitable for either men or women. Each increasingly difficult project will teach you additional jewelry making skills and will give you the opportunity to experiment with new weaving techniques. Students returning to this class will have the option of more advanced projects.

**Prerequisite(s)**        Cost of approximately \$35 per student for tools and materials, depending on exact enrollment figures. Students will pay for the all supplies and keep tools and finished products at end of course.

Rachel Banke, Class of 2008  
Andrew Ritchie, Class of 2008  
Sharon McMurray, IMSA Staff

**"Coins: Window on the Greek and Roman Worlds"**

Part time                      Afternoon

Ancient coins, primary written sources, and archeology, are the three sources of our knowledge of the ancients. In this intersession, we will focus on Greek and Roman coins to link the three types of source materials and discover what they tell us of the ancients in history, art, religion, economics, society, military, agriculture, climate, metallurgy, and politics. Coins will be used as historical evidence to substantiate, or refute, points in the literature of the time. Students will participate in the process by which coins become knowledge.

**Prerequisite(s)**        None

Michael Dearing, Outside Advisor  
Christian Nokkentved, IMSA Faculty

**Combinatorics of Polyhedra**

Part time                      Afternoon

We are all familiar with cubes, octahedra, and other polyhedra in three dimensions, and we can likely count the number of vertices, edges, and faces on these polyhedra. But what about polyhedra in higher

dimensions? For example, how many squares on a seven-dimensional cube? Learn techniques for answering such multi-dimensional questions.

**Prerequisite(s)** Familiarity with combinatorics, sequences, and recurrence relations; a significant level of mathematical maturity. Please consult the instructor with questions or concerns.

Vince Matsko, IMSA Faculty

### **Cooking without a Kitchen**

Part time                      Afternoon

How to cook nourishing, inexpensive, and delicious meals in a residence hall commons using a single appliance such as a rice cooker or crock pot.

**Prerequisite(s)**        A desire to eat well!

Jennifer Peek Wylie, Class of 1992  
IMSA Sponsor, TBD

### **Domestic Violence and Illinois Law**

Part time                      Afternoon

Participants will learn about domestic violence and will be able to recognize signs and cycles of abusive relationships; participants will learn about the Illinois Domestic Violence Act and related laws, and will gain awareness of legal rights and responsibilities of victims and batterers.

**Prerequisite(s)**        None

Ramona Sullivan, Current IMSA Parent  
IMSA Sponsor, TBD

### **Energy Center Projects**

Part time                      Afternoon

Students can work on several Energy Center projects which include an electric (solar recharge) go cart, an outdoor human powered lighted walkway, and alternate fuels.

**Prerequisite(s)**        Involvement in Energy Center or related projects.

Harrison "Max" Phingstein, IMSA Staff  
Branson Lawrence, IMSA Faculty

### **Go Learn More Things!: A Course on Quiz Bowl Theory**

Part time                      Afternoon

This inquiry based intersession will provide an open forum for students to hone their skills at quiz bowl. Students will learn not only academic knowledge in a field of their choosing, they will learn how to study and become experts as they specialize in their fields. Students will also discover the inner workings of writing good quiz bowl questions and take on different roles in the production of a tournament series.

**Prerequisite(s)**        None

Michael Wong, Class of 2011  
Noah Prince, IMSA Faculty

### **The Internet and Linux/Unix Systems**

Part time                      Afternoon

We will learn about core Internet services everyone uses and how they really work. Everyone will be exposed to Linux systems and learn basic concepts and tools common to all Unix variants. We will spend time hands-on with command-line/shell skills, as well as systems administration tools to see what the system is doing. We will go through installation and set up of systems and some common internet-related software.

**Prerequisite(s)**      Interest in computing and the internet is required. No experience with Linux or Unix expected or necessary.

**Students must bring their own laptops.**

Kevin Colby, Class of 1995  
IMSA Sponsor, TBD

**It's up for Debate**

Part time                      Afternoon

Students will learn how to debate an issue in an organized and disciplined way. Students will be introduced to the standard rules and practices of organized team debate. Students will be split up into teams plus there will be a team of faculty members. Each student will participate in three debates and receive feedback on their arguments from faculty and other students.

**Prerequisite(s)**      None

Eric Hawker, IMSA Faculty  
Peter Dong, IMSA Faculty

**“Stop them damn pictures:” Political Cartooning as a Catalyst for Social Change**

Part time                      Afternoon

This course will introduce students to the history of sequential art through examples from international political cartooning. By working with primary documents, students will develop tools for conducting visual analysis and critically reading images. Activities will include mini-lectures, hands-on activities, and group discussions to encourage students to think critically about nationalism, political cartoons, and social change. Based on their independent research and interests, students will develop five different political cartoons on international, federal, state, municipal, and IMSA issue(s) or politician(s) of their choice, with the goal of publication in appropriate newspapers. Drawing skills are not required for this class. Stick figures, computer generated images, and collaboration with other students will be an acceptable means to an end.

**Prerequisite(s)**      For the first day of class, please bring in five political cartoons about recent international (for example, the Globe & Mail), federal (see the New York Times), state (look in the Chicago Tribune), municipal (check your home town), and IMSA (check the Acronym) issues. (One of each would be best.)

Amanda Murphy, Class of 2003  
IMSA Sponsor, TBD

**PART TIME SESSIONS, Evening  
6:30 pm – 9:30 pm**

**Haunted Chicago: A Look at Ghost Stories as a Genre and Chicago's Haunted Past**

Part time                      Evening

Did you know that Chicago is the 8th most haunted city in America? This intersession will focus on ghost stories and folklore in and around the Chicago area. We will read a variety of ghost stories, examine the

literary elements, structure and characteristics of ghost fiction, and look at Chicago's history as it relates to local ghost stories. We may also examine how ghost stories translate to film. Students will be involved in two presentations--one group presentation connecting local history to ghost stories, and one individual presentation of a ghost story (re-telling of an existing story or fiction they have written themselves). This mini-course will include one field trip to Chicago for a Chicago Hauntings guided tour and may include an outing to local "haunted" sites. This intersession is not for the weak of heart . . . prepare to be frightened!

**Prerequisite(s)** Only open to those students who have not participated in this session previously.

Approximate cost (yet to be finalized) is \$65 per student, which includes a reading packet, ticket on the Chicago Hauntings Tour (guided tour downtown Chicago), and fee for a lecture by renowned Chicago ghost expert Ursula Bielski.

Erin Micklo, IMSA Faculty  
Nicole Trackman, IMSA Faculty

### **History of Paris**

Part time Evening

The Parisii founded it -- as a fishing village. Romans conquered it. Vikings attacked it. Medieval scholars flocked to it. Black Plague ravaged it. French kings beautified it. Religious War shattered it. Louis XIV abandoned it. French noblewomen civilized it. Marie Antoinette bled all over it. Barricades divided it. Courtesans scandalized it. Renoir immortalized it. Hemingway pouted all over it. Hitler tried to destroy it. Modern fashion design thrives in it. Come visit it..

**Prerequisite(s)** joie d'vivre

Robert Kiely, IMSA Faculty

### **Science Fiction Films as Commentary**

Part time Evening

The genre of science fiction is often dismissed as escapist entertainment, but many films have used the genre as a way of commenting on current events or ideas. During this intersession, students will watch four science fiction films from different decades, then participate in a guided discussion about the major events or ideas contemporary to when the films were made, what the films have to say about these ideas, how the films relate to themes the students have seen in other works, and how they are still relevant today.

The planned films are "Metropolis" (1926), "The Day the Earth Stood Still" (1951), "Blade Runner" (1982), and "Gattaca" (1997).

**Prerequisite(s)** General familiarity with science fiction and the decades the films were made.

Brian Sebby, Class of 1996  
IMSA Sponsor, TBD

## **OFF CAMPUS TRIPS**

### **A Hand Up, not a Hand Out" – Habitat for Humanity – CLOSED SESSION**

Off Campus

IMSA's Habitat for Humanity (H4H) chapter is hosting its 15th Collegiate Challenge trip! Pick up a hammer and brush and experience first-hand the mission of Habitat to eliminate poverty-housing and homelessness around the world. Work alongside peers and become a family! Talk with Habitat families and volunteers, learn about their experiences, and form a better understanding of the importance of homes in a community. And of course, gain knowledge on how to develop a home. Remember IMSA's H4H motto: "It's a hand up, not a hand out!" This intersession gives back to a community in need!

**Prerequisite(s)** Student must be at least 16 years old. Application based  
\$300 per person: covers registration fee, donation, travel expenses, and commemorative t-shirt.

Linsey Crowninshield, IMSA Staff  
Mike Hoehn, IMSA Resident Counselor

### **China Intersession 2012 - CLOSED SESSION**

Off Campus

Students will have an opportunity to explore the rich culture and history of China with their Mandarin-speaking friends in this 11-day China trip. Our first stop is the High School Affiliated to Renmin University of China in Beijing. Students will participate in classes with RDFZ students and visit major historic sites in Beijing including Forbidden City, and the Great Wall. Next, we will take the high-speed rail to Nanjing, the capital of six dynasties in China history.

We will then visit cities in the Yangtze River Delta area, or so called Jiang Nan Watertowns), including Wuxi, Suzhou, Hangzhou and Shanghai. Wuxi is a beautiful lake side city and one of the oldest cities in China with more than 3,000 years of history. Suzhou is built around the Grand Canal and also known as "Venice of the East". Hangzhou is a city with rich history and culture. Marco Po lo described this city as "the City of Heaven, the most beautiful and magnificent city in the world". In order to make this trip a language and culture immersion experience, students are expected to communicate in Mandarin language as much as possible throughout the entire trip.

**Prerequisite(s)** This trip will tentatively begin on Wednesday, January 4th, 2012 and end on Saturday, January 14th, 2012. The China intersession is open to students presently or previously enrolled in a Mandarin Chinese course and native/heritage students who are in good academic standing. Priorities will be given to current Chinese III students and seniors who speak Mandarin. Preparation includes three required meetings on culture research and travel expectations. Minimum/maximum number of participants: 15-20. Interested students should submit an online application by September 12, 2011 to be considered for this trip. A deposit of \$300 is required upon signup. Deposit will be returned before September 30, 2011, if application is declined.

Estimated cost and source of revenue: \$2100 per person, includes international airfare, hotel accommodation\* (standard room, double occupancy), most meals, deluxe coach transfers, domestic high-speed train, sightseeing admissions, entertainments, travel accident insurance in China, and tour guides. Passport, visa (\$140 for US citizens, \$30 for citizens of other countries), travel insurance, and gratuities for tour guides are not included. Partial scholarships may be available to students with demonstrated need.

Michelle Cheng, IMSA Faculty  
Maria Atienza-Gabas, IMSA Faculty

### **IMSA on Wheels – CLOSED SESSION**

Off Campus

Experienced IMSA on Wheels performers will spend 2 days with intensive study and rehearsal of the science assembly Newton's Laws. Then we will hit the road and perform for deserving schools in the Rock island area for 3rd-5th graders. Students attending this intersession will learn more about presentation skills, education and motivation.

**Prerequisite(s)** Only experienced students can apply for this Intersession.

Julie Dowling, IMSA Staff  
Nicole Hoffman, IMSA Staff

### **Peru Service Intersession Trip – CLOSED SESSION**

Off Campus

Over the last 4 years, 5 staff members and almost 60 students have had the opportunity to visit and volunteer at Nuestrors Pequeños Hermanos (NPH) orphanages in Honduras, Peru and the Dominican Republic. The weeks of intersession and spring break provided life changing experiences 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. This year, we are taking another Intersession trip to NPH in Peru. We will be spending lots of time with kids, helping with construction/finishing touches of their home and any other project NPH may propose.

**Prerequisite(s)**      Approximately \$1600 per student (this will include plane ticket, lodging and food for the week).

Lauren Lutz, IMSA Resident Counselor  
Kristin Rojas, IMSA Resident Counselor

### **"Reducing Stress and Improving Mental Functioning Through a Winter Adventure in the Midwest " inspired by the book *Spark* by John Ratey, Professor of Psychiatry at Harvard Medical School**

Off Campus

The inspiration for this Intersession comes from two books - *Spark* by John Ratey, a professor of Psychiatry at Harvard Medical School and *Last Child in the Woods- Saving Our Children From Nature Deficit Disorder* by Richard Louv, founding chairman of the Children and Nature Network. *Spark* is a groundbreaking exploration of the connection between exercise and the brain's performance that shows how exercise can charge mental circuits to beat stress, sharpen thinking and enhance memory.. *Last Child in the Woods* is the first book to bring together a new and growing body of research indicating that direct exposure to nature is essential for healthy childhood development and for the physical and emotional health of children and adults.

We will read and discuss both books and each participant will conduct their own personal investigation of the transformative effects of exercise and the natural environment on the brain. Engaging in a variety of daily physical activities in the natural environment such as hiking, snowshoeing and cross country skiing, students will develop and practice new skills and reflect on the physical and mental changes that they will experience as the week progresses. Students will keep a journal and self assess their resilience to stressors before the Intersession and afterwards. All participants will stay in a large farmhouse owned by the Prairie Club of Chicago. Hazelhurst Camp is located in Harbert, Michigan approximately 100 miles from IMSA. Students will take turns and work on teams to prepare meals for the group. Evening discussions will be student led and facilitated. Throughout the week, students will learn by accepting and meeting the real challenges of engaging in outdoor activities in the wintertime and by developing their understanding of themselves. Other related topics which will be included during the week are: wilderness ethics, leadership, teamwork, natural history of the area, and winter survival skills.

**Prerequisite(s)**      This Intersession requires a deposit of \$200 and is limited to **7 female students**. Total cost which includes accommodations, meals, equipment rental, transportation, park fees and materials is \$375.00.

Deborah McGrath, IMSA Staff

### **Scuba Diving, Coral Reef Conservation Studies, Possible Marine Mammal Observation – CLOSED SESSION**

Off Campus

A weeklong live-aboard diving and research opportunity awaits students interested in our underwater world. The sailing vessel Cat Ppalu and coral reefs teeming with marine life will be our "classrooms". We

will count and observe invasive lionfish and their prey, GPS-mark sightings, document fish activities. If migrating whales are sighted, we will assist with ongoing projects of the Bahamas Marine Mammal Research Organization, identifying dorsal fins and markings of individuals, noting latitude and longitude of sightings, taking photos or videos. We will visit the Hyburn Key Station to learn about stromatolite research. Interested students will complete a variety of PADI Scuba Diving certifications, such as Advanced Open Water Diver, Rescue Diver, Peak Performance Buoyancy, and Underwater Navigation.

**Prerequisite(s)** Current passport; Basic Open Water Scuba Diver certification OR the ability to complete certification during this class.

\$2,200.00 per participant. Includes round-trip airfare between Chicago and the Bahamas; ground transportation in Nassau; Bahamas tax; Bahamas Underwater National Park fee; 7 day/6 night accommodations aboard a 65 foot catamaran; all meals and beverages on the boat; fuel surcharge; all scuba diving equipment; 4 professional crew members; 2 adult chaperons; ocean kayaks; fishing equipment; 15% gratuity for crew.

Susan Bernal, IMSA Staff  
Mike Nagy, Outside Advisor

### **SIR Research in China – CLOSED SESSION**

Off Campus

Students who are working on three international research SIR projects under my mentorship will have the opportunity to visit China to work on their research with their peers at the High School Affiliated with Renmin University (RDFZ) in Beijing. They will also have the opportunity to attend lectures and presentations at top universities and the Chinese Academy of Sciences, as well as see cultural sites in four different cities. A portion of this trip will run concurrently with Ms. Cheng's intersession.

**Prerequisite(s)** \$1,950

Glenn "Max" McGee, IMSA President  
Aracelys Rios, IMSA Faculty

### **Trip to Spain – CLOSED SESSION**

Off Campus

Explore Madrid, Barcelona, Toledo, Avila and Segovia, as you immerse yourself in the language and the culture of Spain. The trip will include sightseeing, cultural, and educational activities as a whole group. Experiencing first-hand another country and culture can be a wonderful learning experience. Besides broadening a student's outlook in life, this Intersession trip can help with academic work by providing the participants with the opportunity to use the language in authentic situations and to learn about the culture, history and way of life of Spain.

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

The estimated base price for the trip is \$2000.00 (includes round-trip airfare, lodging, some meals, and daily activities). Participants will need to bring some additional money for personal expenses.

Jose Palos, IMSA Faculty  
Minerva Juarez, IMSA Staff

