

INTERSESSION 2013

CATALOG OF OFFERINGS

NOTE ON INTERESEESION COSTS:

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

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

Mathematics Support

Part time Morning 8:30 am – 11:30 am

This session will • Help students identify factors that are impeding their mathematical success • Identify and support areas of weakness (Mathematical content needs will be individually assessed and addressed.) • Provide opportunities for students to have fun in math – work to restore their enjoyment and confidence levels with math.

Prerequisite(s) Any student who earned a C- or D in Geometry, MI1/2, MI2, MI3, MI4 • Any student who earned a C in these courses will be evaluated case-by-case for possible requirement to take this intersession • Note: selection for this intersession is likely to be done before final grades are calculated. If a student has these grades at the time the decision needs to be made, we will apply the same.

Janice Krouse, IMSA Faculty
Don Porzio, IMSA Faculty
Richard Stalmack, IMSA Faculty

Science Required Intersession for Sophomores

Part time Afternoon 1:00 pm – 4:00 pm

This intersession is designed to prepare students for Spring sophomore 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 sophomore science 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.

Prerequisite(s) See above

Joe Traina, IMSA Faculty
Deb Scarano, IMSA Faculty
Megan Schrementi, 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 everyone. 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 borrow or purchase appropriate mask, snorkel, fins, and boots (Package prices range ~\$150 and up, depending upon choices.) Pre-class homework: Read the PADI Open Water Diver Manual and complete Knowledge Reviews. Physician approval may be required for certain pre-existing conditions.

Cost(s) \$350 course fee 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. An additional \$150 and up for the above equipment, making total cost approximately \$500.

Mike Brutlag, Outside Advisor
Mike Nagy, Outside Advisor
Susan Bernal, IMSA Staff

Biological Illustration

Full time Morning/Afternoon **or**

Half time Morning

Please mark form Full time or Half time

Students in this intersession will work on creating illustrations to help demonstrate biological concepts and processes. They will use a variety of tools, including illustration software, based on their interests, goals, and current abilities. The products produced from this intersession will be used for instructional materials and other resources. Students can enroll in this intersession either half or full time.

Prerequisite(s) None

Don Dosch, IMSA Faculty
Sarah O'Leary-Driscoll, IMSA Faculty

Boom! Whoosh! Splat! – CLOSED SESSION

Full time Morning/Afternoon

Be a part of a creative, collaborative team to perform, record and publish science demonstrations on a multi-media platform. Theory to Presentation to Production. Students will be introduced to a series of scientific demonstrations that will be suitable for late elementary students. Preferred participants will need a strong outgoing, energetic personality.

Prerequisite(s) Closed Session Participation in Kids Institute. Application based.

Mike Hoehn, IMSA Staff
Julie Dowling, IMSA Staff
Alan Shramuk, Class of 2012

Cooking Globally

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 ingredients, flavors and cooking styles from various places around the world, such as Spain, North Africa, Southeastern Asia, the Middle East and Lebanon. Other cuisines may also be represented. We will also make five kinds of ice cream with non-traditional flavorings. Much of the food we produce will be either vegetarian or vegan. This is to make the point that good food—really good food, does not require meat. 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) None

Jonathan Besancon, IMSA Faculty
Agnieszka Michalak, IMSA Faculty

Empty Bowls

Full time Morning/Afternoon

This Intersession includes making bowls by hand built and wheel throwing methods. Students will design and make bowls for the Empty Bowls project and luncheon. All proceeds from the sale of bowls will benefit a local food pantry.

Prerequisite(s) None, but being creative and able to use ones hands to make objects is helpful

Clay Sewell, IMSA Faculty

Finding Self in an Encounter Group

Full time Morning/Afternoon

Group participants will work together to create a milieu where each individual is welcome to pursue a personally relevant agenda. Students will have an opportunity to practice implementing the therapeutic attitudes posited by Carl Rogers while participating in, observing, and discussing group process. We will endeavor to create an atmosphere of safety and freedom, conducive to promoting self-awareness and self-expression. Students will read about group process and client-centered theory as well as reflect through writing on their own experience and personal growth over the course of the session.

Prerequisite(s) An interest in psychology and a willingness to participate in, observe, and explore group process.

Kathryn Grubbs, IMSA Staff

French Culture for Study Abroad – March 2013 – CLOSED SESSION

Full time Morning/Afternoon

We propose to teach students about daily life in France in order to prepare them to live with a French family for one week in March 2013. We will require students to do 3 research projects: 1 on a monument in Paris, 1 on a Parisien permanent who is buried in Paris, and some additional research on the town in France where students will attend school for a week and on French family life.

Prerequisite(s) Only for those students participating in the Spring Break Trip to France

Cost(s) \$3,000 per student for trip during Spring Break

Deborah Sanders, IMSA Faculty
Brenda Crosby, IMSA Faculty

Have You Considered a Career in Healthcare? - CLOSED

Full time Morning/Afternoon

This is a week-long, all-day dynamic session held at Chicago's Rush University Medical Center that will expose participants to a variety of health care fields, including medicine, nursing, and other allied health programs. Participants will learn what it is like to train for a career in health care and what it is like to practice, as well as the context of community in which it is practiced. Mock clinical cases, with participants playing the role of health care providers, serve as the framework for the week's activities.

Prerequisite(s) Application Based, Junior and Senior applicants **only** and those who have not participated in this session previously. Juniors and Seniors check your e-mail for the application.

Anthony Nuval, Class of 1998
Sharon Gates, Outside Advisor
Mark Kammrath, IMSA Faculty

IMSA-PTHS Student Exchange – CLOSED SESSION

Full time Morning/Afternoon

IMSA students of Russian will travel to St. Petersburg, Russia for two weeks (approximately March 23-April 7), live with a host family and attend classes at PTHS (Physical-Technical High School. In order to prepare for the exchange, IMSA participants will attend mandatory orientation sessions during Intersession week in January. We will meet in the morning, in the afternoon, and occasionally, in the evening. Students can expect at least one hour of work outside the classroom each day.

Prerequisite(s) Current enrollment in Russian 2 or Russian 3. Strong academic record in Russian and all other classes. An exemplary IMSA discipline record. Willingness/ability to host a Russian student for home stay during 2013-14 school year.

Cost(s) \$2,200 to travel to St. Petersburg. This amount includes airfare, visas, travel insurance, a cultural program, and souvenirs. PTHS families will furnish IMSA students with room and board.

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-Biology or SI-Molecular Genetics and/or pre-IMSA biology course, helpful course: Microbes and Disease

Dr. Edwin M. Goebel, IMSA Science Faculty Emeritus

Martial Arts Training Camp

Full time Morning/Afternoon

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

Cost(s) The costs associated with this Intersession will be: \$35.00 for a traditional, white uniform (mandatory, unless the student owns one), \$3.00 for a mouth guard, \$7 for a cup & supporter (men only), and a \$20.00 equipment fee (mandatory). The total estimated cost is \$58.00 per female participant and \$65.00 per male participant.

Cynthia Nguyen Dang, Class of 2003

Michael Driscoll, Class of 2007

Mivil Abraham, Class of 2008

Danielle Strickland, Class of 2010

David Evenson, IMSA Staff

Mathematical Algorithms in C

Full time Morning/Afternoon

Mathematics and computers have become deeply intertwined in the previous few decades. Hard problems in areas of pure mathematical research are falling prey to novel computational algorithms that

computers can run incredibly fast. This intersession will explore the fundamentals of algorithms within a context of solving relatively pure mathematical problems with the C programming language. We will start with learning C via implementing an efficient version of Euclid's algorithm as well as a efficient prime number generator through wheel factorization. After that, we will explore more complex algorithms and, potentially, cover some classic algorithms from Knuth's Art of Computer Programming.

Prerequisite(s) Experience with introductory computer programming

Zack Maril, Class of 2010
Micah Fogel, IMSA Faculty

Microcontroller Robots

Full time Morning/Afternoon

In this intersession, students will build robots that walk, flop, or shuffle around, all controlled by a Wii Nunchuck and an Arduino-compatible microcontroller. At the end of the week, students will exhibit their robots.

Prerequisite(s) Programming experience is helpful, but is not necessary

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

Physics of Atomic Nuclei

Full time Morning/Afternoon

Students will receive background information on nuclear astrophysics through interactive lectures, conduct self-initiated experiments using 3 different radiation detectors, and present their results. Students will learn soldering skills to assemble a Geiger Counter which is theirs to keep for a \$50 fee. Students will also learn some programming for computer-detector interface.

Prerequisite(s) Eagerness to learn about nuclear astrophysics, detectors, and electronics. Students should bring their laptops.

Cost(s) \$50 student fee for Geiger Counter Kit if students want to keep the Geiger Counter they build. Otherwise kits will be provided for each pair of students and these kits will remain the property of IMSA.

Micha Kilburn, Class of 1995
Rebecca Shane, Class of 2002
IMSA Sponsor, TBD

Robotics 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 create a video for FRC. Students are encouraged to participate in the rest of the competition work that occurs in the five weeks following Intersession. Interested students are invited to attend the regional competition held in Chicago and possibly a second in another city, and if our team qualifies, to the championship in St. Louis.

Prerequisite(s) Students who are currently on the Robotics Team or permission from Jim Gerry

Jim Gerry, IMSA Staff
Monica Kozbial, Class of 2011
Benjamin Kuo, Class of 2012

Robotics Programming Using Java

Full time Morning/Afternoon

Students will learn to code Java programs for the robot to:

- move forward and backward using robot motors
- use the sonar sensor to have it avoid an obstruction in front,
- use the touch sensor to sense a touch so as to turn right or left,
- use the light sensor to follow a path,
- use sound sensor to detect sound,
- use Bluetooth to communicate wirelessly,
- use color sensor to recognize colors,
- create sound,
- display messages on its screen.

Students will be expected to present a final project, either individually or in a group, on the last day of the course

Prerequisite(s) Students must have taken Object Oriented Programming course or must show evidence of their Java programming knowledge to the sponsor. Students who are enrolled in, or plan to take, Robotics Programming are not eligible for this session.

Pat Patankar, IMSA Faculty

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 currently enrolled in SIR will pursue their investigations either half time or full time during Intersession.

Prerequisite(s) Permission of SIR coordinator and advisor. Good standing in the SIR program.

Judy Scheppler, IMSA Staff

The Illinois Country

Full time Morning/Afternoon

This intersession will introduce students 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) None

Clay Skinner, IMSA Faculty

**FULL TIME SESSIONS, Afternoon / Evening
1:00 PM – 4:00 pm, 6:30 PM – 9:30 PM**

Kings and Queens and Plots and Poison and Romance and War . . . and Art: A Study of Renaissance Intrigue

Full time Afternoon/Evening

The Pope's daughter (!) wears a hollow ring filled with poison, used to eliminate rivals and uncooperative lovers. The Duke of Burgundy meets the Crown Prince of France on a bridge to discuss peace, and is promptly assassinated by the prince's retainers. The Queen of Castile and the King of Aragon must marry secretly, because their nobles seek to block their union. The King of France goes mad because several of his friends, clad in highly flammable costumes, accidentally burn to death at a masquerade party. The Queen of France, concerned about the stability of her authority, orders the death of 3000 Parisian Protestants in a single night. Finally, over the course of 30 years, three out of four kings of England, along with dozens of their relatives, die violently as civil war tears at the kingdom. However, while all of this is going on, everyone takes the time to commission really beautiful works of art. Welcome to the Renaissance.

We will explore the period through a combination of discussion, art, documents, and movies (especially in the evening session).

Prerequisite(s) A taste for ruthlessness

Rob Kiely, IMSA Faculty

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

American Red Cross First Aid, CPR, and AED (Adult and Pediatrics 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) None

Cost(s) \$40 student fee for certification

Billy Gentzler, IMSA Faculty

Mary Myers, IMSA Faculty

Sowmya Anjur, IMSA Faculty

An Introduction to Medical Anthropology

Part time Morning

Medical Anthropology studies how culture influences beliefs about illness, medicine, and health. This Intersession will introduce the basic principles of medical anthropology and allow students to apply this knowledge through a series of case studies and discussions. Possible topics could include cross-cultural perspectives on pregnancy and childbirth, the phenomenon of biomedicalization, ethical questions of genetic testing, and cultural dimensions of disease epidemiology. There will be room to explore students' own medical interests as well.

Prerequisite(s) None

Joan Steffen, Class of 2010

IMSA Sponsor, TBD

AP Chemistry Preparation

Part time Morning

We will give students materials, strategies, and information to help them prepare for the AP Chemistry Exam.

Prerequisite(s) AP Chemistry preparation book

Cost(s) Students should purchase an AP Chemistry Exam preparation book (their choice which publisher they wish to purchase).

Dave DeVol, IMSA Faculty

Anita White, IMSA Faculty

Be Entrepreneurial

Part time Morning

Do you have a business idea? Learn about entrepreneurship and what it might take to launch your idea. We'll explore the things you'll want to consider, and resources to help you as you plan. This program is done in conjunction with Junior Achievement of Chicago, augmented with presentations and discussions by experts in law, accounting, marketing and other business support professions, as available.

Prerequisite(s) None, students with an interest in entrepreneurship would find the session most useful

Ellen Huxtable, Outside Consultant
IMSA Sponsor TBD

Chainmaille Jewelry: Age Old Weaves and Crafty Projects

Part time Morning

Do you want to learn how chainmaille is made? Are you interested in using that knowledge in both classic and inventive ways to create jewelry for yourself or friends? This session will explore the historical weaves used in chainmaille armor as well as modern jewelry making. Each student will make a minimum of five projects suitable for both men and women, and each project will increase in difficulty as well as teach you further jewelry making skills. All of the projects will give you the opportunity to experiment with new weaving techniques.

While class time will primarily be hands-on and most students should be able to finish during the allotted sessions, individual students may need extra time outside of class to finish the assigned projects.

Note: This session is being offered at a beginner level, so only those who have NOT previously taken this session are eligible.

Prerequisite(s) None
Cost(s) Cost of approximately \$40 per student for tools and materials, depending on exact enrollment figures. Students will pay for all supplies as well as keep the tools and finished products at end of the session.

Elaina Zintl, Class of 2012
Sharon McMurray, IMSA Staff

Chamber Music and Art Show Performance

Part time Morning

Chamber Music ensemble and soloist rehearsals, which will facilitate student learning about intonation, rhythm and balance within an ensemble. Several genres of music will be incorporated. The final goal will be a Friday performance at the IMSA Art Exhibit.

Prerequisite(s) Intermediate playing capabilities

Mary Beth McCarthy, IMSA Faculty

Chinese Culture

Part time Morning

Students will have an opportunity to explore the rich culture and history of China with their Mandarin-speaking friends in this intersession. Guest speakers will be invited to introduce and/or demonstrate and/or different aspects of the culture such as philosophy and religion, architecture, traditional music, dance, and even Kung Fu. Students will also research in groups on the major cities, tourist attractions, food, and pop culture to gain an insight into the modern lives of Chinese people.

Prerequisite(s) Priority enrollment will be given to students who are currently taking Mandarin Chinese or native speakers of Mandarin Chinese.

Cost(s) \$25 per student for food and activities

Michelle Cheng, IMSA Faculty

Cultural Competency: Understanding of Others

Part time Morning

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 the past treatments of people with disabilities. Students will gain an appreciation for people who are different. Students will have short writes throughout the week to document their learning with an end of the week writing assignment. 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 that is the official date for the campaign and the world wide movement.

Prerequisite(s) Students must bring laptop, pen/pencil, and appropriate clothing for outdoors.

David Lundgren, IMSA Faculty

Discover How 15 Minutes of Daily Meditation Can Beat Anxiety, Stress and Fatigue

Part time Morning

Recent scientific research on happiness shows that regular meditation and mindfulness practices can actually shape your brain for joy, love and peace. This intersession will show you how to turn worry and stress upside down and leverage your imagination to energize and relax you. We will watch videos by top brain scientists, practice meditation and explore practical tools and skills to train your brain for calm, joy and love instead of worry, stress and anger.

Prerequisite(s) Students are encouraged to bring their laptop and headphones

Cost(s) \$35 per participant for cost of workbook & meditation CD

Sudesh (Dr K) Kannan Phd, IMSA Parent
IMSA Sponsor TBD

Energy and the Environment

Part time Morning

Students will choose from several projects that are related to energy conservation. Students will learn about alternative fuels, solar and wind power, and energy efficient architecture. Students will be able to work on diesel engines and make their own diesel fuel. Students can design wind mills and the electric generators to be used on those windmills. Students can work on a solar charging station to be placed on the IMSA campus. Students can test building materials for heating efficiency. Students will report orally the last day about what they learned from the experience.

Prerequisite(s) None

Branson Lawrence, IMSA Faculty
Dan Gleason, IMSA Faculty

Hmmt Preparation

Part time Morning

We will prepare for high level mathematics competitions. In particular, the Harvard - MIT Mathematics Tournament (hmmt). This session is designed for those students competing in the hmmt in February of 2013, or those who hope to make the team next year. It is open to those students who wish to gain experience in solving very high level problems from mathematics competitions. Students should be prepared to spend many hours doing mathematics problems.

Prerequisite(s) Math competition experience

Steve Condie, IMSA Faculty

HORSE!

Part time Morning

This intersession invites students to study and enjoy the horse in historical, aesthetic, athletic, and ethical contexts. To those new to this wonderful animal, it serves as an introduction. To those who already love him, it is a reaffirmation of the centuries-old partnership between man and horse. A field trip to tour the Tempel Lipizzan Farm, Wadsworth, IL is planned if transportation can be arranged. On other days we will spend time reading, drawing, discussing and writing about horses, including their natural history.

Prerequisite(s) None, other than a love for and/or curiosity about all things equine.
An early departure time of 7AM for the Tempel tour is scheduled. Warm clothing and sturdy shoes are required for the tour, as barns are unheated and can get quite cold in the winter.

Cost(s) \$10 per student, tour cost of Tempel Farm.

Jean Kadel, IMSA Faculty

Making the Band: A Music Video

Part time Morning

Students will learn the process of making a music video from start to finish by creating their very own. We will compose and record an original song, and we will shoot photography and video. We will discuss the individual steps and how the production comes together. At the end of the week students will take away a copy of their music video to show their family and friends. We just ask that they remember us after becoming famous.

Alexandra Platts, Class of 2007

Liz Jackson, Outside Advisor

IMSA Sponsor, TBD

Mathematica

Part time Morning

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

Prerequisite(s) Completion of MI 3, Students must bring their laptops

Ruth Dover, IMSA Faculty

Music Composition

Part time Morning

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

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

Peter Dong, IMSA Faculty

Nuclear Weapons and WMDs

Part time Morning

Nuclear Weapons and WMDs intersession is celebrating its 10 year anniversary as an Intersession at IMSA. Students will learn some of the physics and material science behind nuclear weapons, their destructive effects, which countries possess them, how to defend against them, what other WMDs exist - and a whole host of other useful things for the post-2012 apocalyptic landscape! (Just kidding on that one.) Through lectures, films, discussions, and presentations, we'll explore the societal impact of having our collective finger on the button.

Prerequisite(s) None.

Eric Engelhard, Class of 1996

IMSA Sponsor, TBD

Science Bowl

Part time Morning

Science Bowl is an academic competition that tests students' knowledge in all areas of science. It uses a fast-paced question-and-answer format that is similar to Jeopardy or Scholastic Bowl. Categories include: Biology, Chemistry, Physics, Math, Earth & Space Science, and Energy.

Prerequisite(s) Love of Science and Math

Peter Clancy, IMSA Faculty

Sustainability Leaders – Games Development for Learning

Part time Morning

Interested in business, entrepreneurship, game development, sustainability, fund raising and marketing? Join the founders of the Sustainability Leaders Collaborative in developing curriculum based on games and exercises that engage learners in powerful learning experiences around the theme of sustainability. Create marketing strategies, prepare convincing pitches and gain valuable insights for seeking funding from “angel” investors.

Prerequisite(s) Recommended for TALENT students

Stephen Lane, Outside Advisor
Dr. Richard Carlson, Outside Advisor
Carl Heine, IMSA Sponsor

Swimming for a Lifetime of Fitness

Part time Morning

This session will teach students how to swim all four competitive strokes, side stroke, and elementary backstroke with proper technique. Students will experience the mental and physical benefits of swimming as they develop knowledge of swimming terms.

Prerequisite(s) None

Brooke Schmidt, IMSA Faculty
Julie Polz, IMSA Staff

The 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. Knowledge of musical terminology or perfect pitch is not a prerequisite, only an interest in listening to and learning about the symphony.

Prerequisite(s) Interest in music

Michael Keyton, IMSA Faculty

The Internet and Linux Systems (Beginner)

Part time Morning

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

Prerequisite(s) Interest in computing and the internet is required. No experience with Linux, Unix, or programming is expected or necessary. Students must bring laptops everyday.

Kevin Colby, Class of 1995
IMSA Sponsor, TBD

Prerequisite(s) None

Alexandra Plattos, Class of 2007
Liz Jackson, Outside Advisor
IMSA Sponsor, TBD

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

A Military History of World War II, 1937-1945

Part time Afternoon

This Intersession will take students through the significant events of World War II. Students will gain a clear understanding of the interplay of strategy, operations and tactics. Both the war in Europe and the war in the Pacific/Asia will be covered. This will be accomplished through a mixture of lecture, student reading and discussion, floor models and the analysis of movie clips.

Prerequisite(s) Must have read one of several approved texts on World War II before the start of class.

Lee Eysturlid, IMSA Faculty

Android Programming with Java

Part time Afternoon

This intersession will introduce students to creating Android applications with Java. Students will use Eclipse to develop basic applications utilizing buttons, scroll lists, dialog boxes, and event handlers. Advanced students will have the opportunity to develop more complex applications, such as a media player, custom web browser, or simple game. Previous Java or other programming experience is helpful, but not a requirement. No Android phone necessary.

Prerequisite(s) Basic computer skills and an interest in programming

Ryan Eberhardt, Current IMSA Student
Namrata Pandya, IMSA Sponsor

Ear Near the Door, Eyeball at the Window

Part time Afternoon

An introduction to the world of both art history and classical music. Introductory discussions about the many aspects--styles, materials and subjects, and individual artists of several visual art traditions. Presentation of "classical music"--in some of its many forms and styles: symphony/chamber and solo/opera/concerto...as romantic/baroque/neo-classic/modernist...and through the works of several significant composers.

Prerequisite(s) Interest in the world of both art history and classical music

Dr. Joshua Kind, Outside Advisor
Leah Kind, IMSA Sponsor

Evolutionary Medicine

Part time Afternoon

Learn how to integrate the basic biological concepts of evolutionary biology into medical thinking. We can start with the evolution of resistance to antibiotics, and progress to look at how we can affect the virulence of a pathogen via selection pressures.

Prerequisite(s) Biology course

Cheryl Heinz, Class of 1989
IMSA Sponsor, TBD

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. Students will be required to write quiz bowl questions based on the principles discussed in class. Writing assignments should take two to three hours nightly.

Prerequisite(s) None

Cost(s) \$10 per student to cover the cost of tournament necessities

Michael Wong, Class of 2011

Noah Prince, IMSA Faculty

Haiku, Classical and Modern

Part time Afternoon

In this Intersession students will appreciate and create haiku: Japanese poems in miniature, verbal distillations of experience. We will study the traits of classical haiku, including seasonal cues, imagery, and implication, and we will also work with looser, more modern versions. Every day we will capture our own ideas by writing haiku; some of these will be shared at Friday's IMSA Art Exhibit.

Prerequisite(s) None

Dan Gleason, IMSA Faculty

It's Still 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 of three or four and each student will participate in at least three debates and receive feedback on their arguments from faculty and other students. Students will need to do some debate prep work outside of the daily session.

Prerequisite(s) None.

Eric Hawker, IMSA Faculty

Peter Dong, IMSA Faculty

Tracy Townsend, IMSA Faculty

Leah Kind, IMSA Faculty

Love Shouldn't Hurt: Understanding Power-Based Personal Violence

Part time Afternoon

Power-based personal violence, encompassing sexual assault, intimate partner violence, stalking, and childhood sexual abuse, is clearly recognized as immoral, illegal, and unacceptable in the United States, yet research shows that rates of violence remain consistently high. 1 in 4 women and 1 in 6 men will experience sexual assault in their lifetime. 60% of teen relationships contain elements of abuse and 1 in 4 women will experience domestic violence in their lifetime. Systemic issues of childhood sexual abuse continue to surface in many of our nation's most respected institutions. Why does the violence continue? What sorts of efforts exist to respond to and to prevent this violence? How can we work to build happier, healthier, and safer relationships? We will explore these questions and others pertaining to the anti-violence movement with a special focus on high school and college relationships.

Prerequisite(s) None

Joan Steffen, Class of 2010

IMSA Sponsor, TBD

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

Part time Afternoon

Thomas Jefferson once predicted it would take a thousand years to settle the West. In 1893, historian William Jackson Turner declared the western frontier "closed." In roughly a single generation—1865-1890—a cast of colorful characters emerged 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. But what are the facts behind these characters? And 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, barbed-wire, and an iron-railed umbilical cord stretching from northern Illinois to the Western Great Plains. This intersession samples the cultural history of the Old West, sifting reality from myth. We will enjoy the romance of the Old West in film, painting, and historical criticism.

Prerequisite(s) None, other than a willingness to visit a different time and place as a mental traveler.

Jean Kadel, IMSA Faculty

Projective Geometry and Linear Algebra – CLOSED SESSION

Part time Afternoon

In this Intersession, participants will study the conic sections in the projective plane using linear algebra. An in-depth study of conics, various descriptions of conics, tangential properties, conics as envelopes of lines, and polars of conics will be presented. Participants should be very familiar with the conic sections, and should have a basic knowledge of matrix algebra, including the dot product, cross product, matrix multiplication, and transposes.

Prerequisite(s) Participants should be very familiar with the conic sections, and should have a basic knowledge of matrix algebra, including the dot product, cross product, matrix multiplication, and transposes.

Vince Matsko, IMSA Faculty

Sophomores Only – Introduction to Molecular Biology

Part time Afternoon

This intersession is for sophomores who want lab experience in molecular biology. Included will be the analysis and interpretation of results from bacterial transformation, polymerase chain reaction, and gel electrophoresis. Students will use molecular biology principles to solve homework problems.

Prerequisite(s) Sophomores only; must wear closed toe shoes.

Sue Styer, IMSA Faculty

The Internet and Linux Systems (Advanced)

Part time Afternoon

Learn about core Internet services everyone uses and how they really work. Review tools common to all Unix variants and explore tips and tricks for using them in shell scripts. Create simple PHP-driven web pages and create and use REST web services.

Prerequisite(s) Experience using some programming or scripting language and some experience using a Linux or Unix system is required. Students must bring laptops everyday.

Kevin Colby, Class of 1995
IMSA Sponsor, TBD

The Life Cycle of a Start-Up Company

Part time Afternoon

We will embark on the journey of a start-up company founder, beginning with the moment the “light bulb” of an idea goes off in her head, exploring important company formation and funding decisions, problem-solving typical operational issues, and evaluating long-term goals and exit strategies. Through a “choose your own adventure” role-playing format, students will experience the excitement and confront the challenges of a hypothetical start-up company, and gain a deeper understanding of the life cycle of a start-up company. For the duration of the week-long course, each student will assume one of a number of roles within the start-up company (e.g., founder, venture capital investor, bank lender, commercial partner, etc.) and will be asked to make key decisions about the company’s future along the way, in negotiation with the other key players. For example, decisions will include: (1) how to protect the company’s intellectual property, (2) when and how much funding to raise from investors, and specifically from whom, (3) whether founders should lead the company or hire an experienced CEO instead, and (4) what the exit strategy for the company should be, if any. Each day we will begin with an overview and

discussion of a particular stage in the life cycle of a start-up company, with examples that real companies have faced to highlight particular challenges. Then we will break into small groups to confront these challenges head-on with each student making decisions on his or her role within the company. Towards the end of each session, we will regroup for Q&A and discussion of what occurred within the small groups, and what students learned.

Prerequisite(s) None. All students are welcome, whether a student aspires to become involved in the start-up company process as an entrepreneur, lawyer, investor, banker, advisor, or employee, or is just interested in the topic! No technical background or idea for a company is required.

Anna Remis, Class of 1997
Carl Heine, IMSA Staff

The Streets: An Artistic Look at Urban Life

Part time Afternoon

Students will be exposed to the Urban Arts, primarily music and dance, as a means of expression in numerous ways. As they watch movies and videos pertaining to a certain style of urban art such as hip hop dancing or rap, a paralleled interactive experience will occur in which they will actively engage in learning the same art as taught by one or more of the sponsors. By analyzing the variance in styles between different urban societies, students will explore a facet of civilization that speaks to the soul of humanity that showcases how interesting and variegated our methods of expression, as well as coping with day to day struggles, can be,.

Prerequisite(s) Interest and potential appreciation for urban lifestyle and the Urban Arts
Comfortable clothing

Samuel Kwak, Class of 2011
Kevin Shi, Class of 2011
Ishmael Bew, IMSA Sponsor

Time Reckoning

Part time Afternoon

Explore the mathematics, technology and cultural history of telling time through discussion, exercises, readings and hands-on activities. Build your own sundial and nocturnal wheel, see inside a working mechanical clock, learn how computer algorithms synchronize time, decode the NIST atomic clock signal, and calculate your GPS position. You will learn broad themes as they develop in a historical context; and should be able to determine your longitude with a pocket watch.

Prerequisite(s) Basic algebra and trigonometry helpful

Jered Wierzbicki, Class of 2002
Steven Lucy, Class of 2002
IMSA Sponsor, TBD

Time Travel Through Film and Story

Part time Afternoon

We'll begin to explore time travel from the perspective of real-world science, and give a brief overview of the possible physics behind theories of time travel, and what the real-world limitations are. Then we'll dive into exploring time travel through film, television, and short story, breaking down and categorizing the different "rules" of time travel. (Possible media includes: Film-Primer, Back to the Future, The Butterfly Effect, TV-Doctor Who, Futurama, Simpsons, Quantum Leap, Story-Heinlein, Bradbury) We'll examine a wide variety of portrayals and decide for ourselves what the most plausible means and rules of time travel are. We'll also discuss humanity's enduring fascination with time travel. Three short stories will be required reading, and there will be a brief presentation on the final day.

Prerequisite(s) None

Eric Engelhard, Class of 1996
Michael Hancock, IMSA Sponsor

Unbound: An Introduction to Altered Books

Part time Afternoon

This Intersession will explore the Altered Book as an example of repurposed art. Students will learn about the genre and discuss various techniques and examples. However, the main goal of the course will be for each student to produce his or her very own altered book. Examples of altered books:

http://msnyder.typepad.com/the_labyrinth/2008/04/stainless-steel.html

<http://gulfsprite.com/2009/09/raise-a-lady-altered-book/>

<http://mixed-media-artist.com/2009/07/altered-book-artists.html>

Prerequisite(s) No art skills/experience required. Bring your sense of adventure and creative spirit!

Cost(s) \$10 student material fee

Dawna Bagherian, Class of 2010

Gabriella Heller, Class of 2010

IMSA Sponsor TDB

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

Get Hooked – The Art and Technique of Crochet

Part time Evening

One of the youngest fiber arts in the world, crochet (taken from the French word for "hook") is the art of using a hook to turn yarn or thread into fabric. This course will cover the basics of crochet technique, from creating a foundation chain to working in circles. In addition, students will explore and present research on historical and current uses of crochet from around the world. Hooks and yarn will be provided by the instructor.

Prerequisite(s) A willingness to learn, and a little patience!

Sharon DeCaro, Class of 2003

IMSA Sponsor, TBD

Haunted Chicago: A Look at Ghost Stories 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. Student 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 Haunting guided tour and may include an outing to local "haunted" sites. This intersession is not for the faint of heart . . . prepare to be frightened!

Prerequisite(s) This course is limited to students who have NOT participated in this intersession before.

Cost(s) Approximate cost is \$50 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

Introduction to Improv

Part time Evening

Improvisation is a theater form that was developed in Chicago in which everything is made up on the spot based on suggestions from the audience. In recent years, it has been popularized by television shows

such as "Whose Line Is It Anyway?". Students in this intersession will learn the basic rules of short-form improvisation, which uses the audience suggestions in short scenes and games. Over the course of the week, students will discover how to create a successful scene, learn a number of improv games, and most importantly, learn to say "Yes And" as they perform with a team. On Friday, the class will perform a 30-minute, completely improvised show for the IMSA community.

Prerequisite(s) None

Cost(s) \$20 ticket for optional trip on the Saturday following Intersession to the ComedySportz Theatre in Chicago.

Brian Sebby, Class of 1996
Michael Abrahamson, IMSA Sponsor

Korean Language and Culture 101

Part time Evening

Students will be watching Korean dramas to learn about Korean language and culture. Students will learn to use Korean alphabet called "Hangul". Students will also learn to converse with one another using simple everyday phrases in Korean.

Prerequisite(s) None

Jeong Choe, IMSA Faculty

Recognizing the Crappiness of Your First Draft

Part time Evening

Writing a story isn't all that hard: put one word after another, sprinkle in some setting, plot, and dialog, and you're done. But real effectiveness in creative writing comes through the revision process, which is full of analytical, critical thinking almost the exact opposite of the mindset required for the initial story creation. This intersession will dive into the nuts and bolts of the revision process, including how to decide what to add or cut, picking out those vivid, essential details, deep imagining, and persisting the fictional dream. The class will be in workshop format with embedded mini-lectures.

Prerequisite(s) All students must have a story prepared to be workshopped and discussed. Stories must be ready and sent to me at least a week before the start of intersession. I will distribute stories to the class along with a schedule of which stories will be workshopped on which day. All stories should be read and commented on before the story is discussed in class.

Amanda Kabak, Class of 1992
IMSA Sponsor TBD

"Stop them damn pictures": Stereotypes, Censorship, and Satire in Political Cartoons

Part time Evening

This course will introduce students to the history of comics 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 stereotypes, censorship, satire, political cartoons, and social change. Topics will include: depictions of Native Americans throughout US history, the many corrupt governors of Illinois, international disputes, elections, gendered imagery, and portrayals of immigration. Based on their independent research and interests, students will develop 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, multi-media 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 or Al Jazeera), 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 Murphyao, Class of 2003
IMSA Sponsor, TBD

The Science of Acting

Part time Evening

How does an actor create a "natural" performance? In this intersession, students will learn objective elements of natural communication. We will explore how these elements may be applied in performance and presentation, and we will discuss how they may be empirically measured in research designs.

Prerequisite(s) None

Christopher Aruffo, Class of 1989
John Jaeger, IMSA Sponsor

"Timey-Wimey Stuff:" History and Philosophy in Doctor Who

Part time Evening

Using both classic and new Doctor Who as a back drop, students will learn about philosophy (and history). We will explore several particular themes including the show's producers' response to current events, the influence of historical approaches on the show's construction, the Doctor's ethics, and the philosophy of "reverse causation." Depending on the student, the reading could be slightly more than 30 minutes over the four nights.

Prerequisite(s) Students must have access to the book Doctor Who and Philosophy: Bigger on the Inside by Courland Lewis and Paula Smithka.

Cost(s) Approximately \$15.00 for the book

Eric Smith, IMSA Faculty

OFF CAMPUS TRIPS

Viaje a España- CLOSED SESSION

Off Campus

Explore Madrid, Barcelona and Toledo 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.

Cost(s) The estimated base price for the trip is \$1,800 - \$2,000 (includes round-trip airfare, lodging, some meals, and daily activities). Participants will need to bring some additional money for personal expenses.

Aracelys Rios, IMSA Faculty
Jose Palos, IMSA Faculty
Maria Atienza-Gabas, IMSA Faculty

IMSA/RDFZ International Collaborative Research – CLOSED SESSION

Off Campus

Students who are currently working on an SIR project in collaboration with students and faculty at RDFZ, IMSA's sister school in Beijing, will spend a week at RDFZ working with their research partners, visiting classes and also touring important historic and modern Chinese cultural sites and university laboratories.

Prerequisite(s) Students must have Dr. McGee as their current SIR advisor or co-advisor.

Cost(s) \$1,000 – \$1,200 per participant

Glenn "Max" McGee, IMSA President

Building Houses, Building Hope: Habitat for Humanity – CLOSED SESSION

Off Campus

Students will participate in Habitat For Humanity's Collegiate Challenge Program. Students will gain hands on construction, building and landscaping knowledge. Students will interact with Habitat families and volunteers in the city focusing on volunteerism and service.

Prerequisite(s) Application based. Students must be 16 years of age and must attend all 4 Sunday educational meetings prior to the trip. Students must also participate in their selected committee for trip preparation.

Cost(s) \$350-\$450 per student, estimated travel cost

Linsey Crowninshield, IMSA Staff

Harness The Wind: Learn To Sail – Must see Daniel Riemersma to sign up for this session

Off Campus

Eight IMSA students and one chaperone will travel to Eckerd College in St. Petersburg, Florida. There, students will participate in the high-quality sailing curriculum provided by Eckerd College staff. Students will learn how to skipper and crew a simple daysailing keelboat in familiar waters with light to moderate wind and water conditions. This involves learning preparation for sailing, crew operations and skills, sailing theory, leaving and returning to a dock/mooring, and navigation. We will fly from O'Hare to Tampa on January 6, 2013 and return to O'Hare on January 13, 2013.

Prerequisite(s) Students must be performing well academically, must not have significant residential violations, and must not have physical disabilities that might prevent them from participating in activities that require fast movements in a dynamic environment (sailboats). Students must be able to swim 150 yards without stopping.

Cost(s) \$1,400 + airfare, per student

Daniel Riemersma, Resident Counselor