

INTERSESSION 2008
Updated 10/31/2007

FULL TIME SESSIONS, Morning / Afternoon

10105 Inquiring Minds Want to Know

Full-time Morning/Afternoon

This would be a full-time Intersession for students engaged in research and development of History Fair topics or the La Salle Project for the History Department.

Prerequisite: Declared History Fair topic. Membership in the La Salle Project research team.

Dr. Clay Skinner, IMSA Faculty

10108 Public Urban Education

Full-time Morning/Afternoon

How can you help to improve public urban education? Whether you want to be a computer programmer developing educational software, an executive director for the College Board, a bilingual educator, an administrator, or the next Bill Gates-- funding America's schools, this Intersession will introduce you to ways you can help improve Chicago's public schools. You'll take a first-hand, critical look at different aspects of public education by visiting two Chicago Schools, a vocational high school and a bilingual elementary school. By end of Intersession, you will propose specific suggestions for education reform!

Prerequisite: None

Jessica Fritzsche, Class of 1997 - (Currently a bilingual teacher at Telpochalli Elementary School, Chicago, IL).

Beth Greiner, Class of 1997 - (Currently a teacher at Prosser Career Academy, Chicago, IL).

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10109 Social Justice I: The Civil Rights Movement

Full-time Morning/Afternoon

An exploration of the sociological and historical roots of the Civil Rights movement from 1954-Present. Focusing in part on what made that particular convergence of history and political agency different. Were there particular intellectual and ethical resources that were summoned in this epoch of struggle such that the outcomes were different than a different age? What role did individuals as such play in this moment of transformation? Was this period an accident of history or does it offer lessons for how we can attempt to create a just society?

Prerequisite: None

Kazi Joshua, Admissions

Quintin Backstrom, Admissions

10113 The Science of Global Warming

Full-time Morning/Afternoon

An examination of the science of global warming using scientifically skeptical analysis of the case made by both the proponents and opponents to the theory that human created greenhouse gases are significantly warming the earth's atmosphere. It will not be the purpose of this class to discuss the politics or the economic issues, but rather to focus clearly on the issues that can be examined using science and the scientific method.

Prerequisite: Sophomore chemistry. Prior to the start of class, the students should read, at a minimum, the "Summary for Policy Makers and the "Technical Summary" form the IPCC 2007 report which can be found at: <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html>
They should also read either "Cool it - The Skeptical Environmentalist's Guide to Global Warming" by Bjorn Lomborg, or "State of Fear" by Michael Crichton. David Gossman, Former IMSA Mentor/Parent

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FULL TIME SESSIONS, Afternoon / Evening

10201 The Coming Plagues

Full-time Afternoon/Evening

This Intersession will examine the potential negative interactions between microbes and humans. We will look at a few 'plagues' from history (The Black Death, Influenza of 1918, Cholera pandemics), and then spend most of our time talking about microbes which might cause epidemics and/or pandemics in the future. We will spend some time talking about the microbe's ability to cause disease (pathogenicity) as well as the human's ability to resist disease (immune response). The social and economic implications of epidemics will also be explored.

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

Dr. Ed Goebel, Former IMSA Staff

HALF TIME SESSIONS, Morning

05101 A Glimpse of Indian Culture through Media, Literature, and Art

Half-time Morning

In this Intersession we will explore, experience, and learn about various aspects of Indian culture. We will learn about the history of Indian art, clothing, cuisine, and dance. We will also discuss the Pulitzer-prize winning Jhumpa Lahiri's "The Namesake" in coalition with the recently released film. Lastly, we will screen both an atypical and typical Hollywood film to discuss the similarities and differences.

Prerequisite: Read "The Namesake" by Jhumpa Lahiri prior to Intersession week.

Soumya Gogula, Class of 2007 - (Currently a freshman studying chemical engineering at the University of Illinois Urbana-Champaign).

Sivali Boddu, Class of 2007 - (Currently a freshman studying biomedical engineering at Case Western Reserve University).

Dr. Sowmya Anjur, IMSA Faculty

05104 Beginning Swimming

Half-time Morning

This class is designed for those who did not pass one or more elements of the swim test during Moving and Learning class. It is also open to those who passed the test, but would like to improve their swimming ability. A progression of skill drills will be utilized for each of the basic swim strokes (elementary backstroke, freestyle, backstroke, sidestroke, and breaststroke).

Students will be video-taped pre and post class for the purpose of measuring improvement.

Mechanical principles will be discussed and utilized as they pertain to movement in the water.

Instructor and student analysis of the video-tapes will serve as the class assessment.

Prerequisite: Students need to bring suit, towel, and goggles.

John Martin, IMSA Faculty

05105 Building and Analyzing Rockets

Half-time Morning

Students will build a standard rocket and analyze its flight. Then build a custom rocket to their own set of parameters. They will then fire and evaluate.

Prerequisite: None

Branson Lawrence, IMSA Faculty

05107 Drama on Wheels

Half-time Morning

The perfect match - The Drama Club and IMSA on Wheels! Participants will learn the mad skills of IMSA's drama club and the explosive demonstrations of IMSA on Wheels. Join us every morning for exercises in: improvisation, presentation skills, stage direction, scientific demonstrations, and so much more. The week will wrap up with your enhanced performances.

Prerequisite: None

Tracy Miller, Kids Institute

Nathan Kafka, IMSA Resident Counselor

05110 Major Choral Works of the 20th Century

Half-time Morning

During the week, we will listen to 5 major choral works of the 20th century. In each, we will investigate the relationship between the text and the music, look at how each enhances the other. The selection of works will also partially demonstrate variety of sound resources at the disposal to a composer. We will also discuss some of the hidden features a great composer can draw upon to unify a large scale work.

Prerequisite: Interest in music

Dr. Michael Keyton, IMSA Faculty

05115 Visual Data and Quantitative Data - The mechanics of blending two mediums

Half-Time Morning

This session will focus on blending materials developed in GimpShop and Excel. We will tackle the basics of using a visual editor (Gimpshop) and then combining that material with Excel, digital photos, and online resources accessed over the Internet.

Prerequisite: A lap top or tablet computer.

Dr. Jim Victory, IMSA Faculty

05117 IMSA Swings! - NEW PROPOSAL

Half-time Morning

Want to have a great way to meet people, get some exercise, and show off a bit on the dance floor? Come learn to swing dance!

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

Look forward to seeing you in January!

Prerequisite: Entry fee for dance venue not to exceed \$15.00

Neal Groothuis, Former IMSA Staff & Class of 1997

HALF TIME SESSIONS, Afternoon

05209 Introduction to the Theory of Pricing Options, Futures and Other Financial Derivatives

Half-time Afternoon

Financial derivatives of all kinds, from simple stock options to more complicated securities, make up the vast majority of the securities traded in financial markets, yet the methodology for pricing these securities is well-understood by relatively few. This course will provide an introduction to the fundamental concepts of option pricing theory, with a focus on the economic basis for these principles and a brief look at the advanced mathematics used to derive the most basic model for pricing stock options. An introduction will also be given to the kinds of financial derivatives traded in the market place, and the types of models that are typically used to value each. This course will examine some of the limitations and shortcomings of using these models in a trading environment (in particular, why standard assumptions of how stock and other prices change over time underestimate the frequency of crashes in the stock market and related markets).

Prerequisite: BCI or ABI recommended, as the final day will briefly introduce some of the higher level mathematics used in analyzing financial derivatives, and will involve (calculus) derivatives. Exposure to integral calculus and familiarity with probability a plus. Pre-exposure to financial derivatives NOT required.

John McFerrin, Class of 1998 - (Currently a quantitative analyst and financial software developer for Derivative Solutions, the Fixed Income division of Factset Data Services).

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05212 Nemo for Novices: A Crash Course in Marine Biology

Half-time Afternoon

From underwater dragons and goblins, to sea fireflies, to double-jawed creatures straight out of Alien, sea animals have evolved weird and exciting adaptations. This class will use the movie, Finding Nemo, as a diving- off point to learn what it takes to survive in the deep blue and to explore sea creatures great and small. We'll follow Marlin and Dory on their adventure through their cozy coral reef home to the deep abyss and all the niches in between. We will also touch upon how the ocean affects your everyday life and the harmful impact humans can have on this important ecosystem.

Prerequisite: None
Kit Pfeifer, Kids Institute
Vicki Burgholzer, Science IPA

HALF TIME SESSIONS, Evening

05301 Fast, Easy, Accurate: Approximation Methods in Business and Finance

Half-time Evening

Many quantitative problems in business and finance don't require answers with the level of precision that comes from solving equations analytically (the pencil-on- paper math that yields exact solutions). And analytic solution methods can be too slow, too difficult, or perhaps even impossible given the information and time constraints in the real world. Fortunately, there are a variety of other ways to find reasonably accurate answers with limited information or limited time. We'll survey several such graphical and numerical methods, discuss some of the underlying mathematical theory, and practice with real problems in business and finance.

Prerequisite: MI IV required. (ABI or BCI is helpful but not necessary.)
Students should bring their laptops.

Pranav Kiran Parekh, Class of 1992

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05302 Moments of Light: Art, Philosophy, and the Creative Spirit

Half-time Evening

A work of art exists in several dimensions: the culture that it springs from, the dominant systems of thought that shape it, the intentions and inner struggles of the artist, and the assumptions of those who experience it. In this Intersession, we will look at five individual works of western art in all their complexity, one on each day of the course. We will explore the relationship of each work with society, politics, religion, and philosophy; we will consider changing definitions of the beautiful, the sacred, and the sensual; and we will study the way that works of art reflect the experiences and struggles of the artist.

Prerequisite: Eyes
Dr. Rob Kiely, IMSA Faculty