

# THE SESAME PROGRAM

University of Chicago—Department of Mathematics

## SESAME BACKGROUND

Since 1992, the SESAME program in the Mathematics Department at the University of Chicago has offered a full range of courses leading to Illinois State Endorsement for the Teaching of Mathematics in the Middle Grades. A similar program for the Science Endorsement was started in 2001.

All of the courses in SESAME place a strong emphasis on content and the conceptual foundations of the subject along with strategies and pedagogical techniques for bringing this content to the classroom. The teachers continually work together in small groups to provide appropriate interaction with their peers. The program emphasizes, to a great extent, inquiry-based learning or the discovery method so that the teach-

ers learn to employ this technique in their classrooms.

To date, SESAME has involved approximately 1,200 teachers from more than 150 Chicago Public Schools. A significant number of these teachers have received state endorsement in the teaching of mathematics and science.

The ultimate goal is to have every teacher in the Chicago Public Schools who teaches mathematics and/or science in the middle grades to have the appropriate endorsement from the State of Illinois. Perhaps even more important is the goal to provide knowledgeable teachers who can deliver subject matter to middle grade students in a highly effective way.



Paul J. Sally, Jr.  
Professor of Mathematics  
Director of SESAME

## COURSE HOURS/CREDIT

Chicago teachers are welcome to join our program at the start of any of our four yearly sessions: Autumn, Winter, Spring, or Summer.

The academic year sessions (Autumn, Winter, Spring) take place on Wednesday evenings. During the summer, we offer a two-week program during the first two weeks of August, which includes both a morning and an afternoon session.

Every course consists of ten three-hour class meetings. Each course taken can earn teachers 3.33 semester hour credits and can be

used for obtaining a State of Illinois Endorsement in the Teaching of Mathematics or Science in the Middle Grades. In addition, SESAME courses can be used for Chicago Public Schools Lane Credit and State Recertification. This credit does not count towards a Masters Degree at the University of Chicago.

Teachers who take a full complement of courses may satisfy the requirements for State Endorsement in Mathematics or Science with SESAME in about two years.

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## COST TO TEACHERS

The cost of participation is \$500 per course. Invoices are mailed when a teacher is officially registered for a course and the payment will be due on Wednesday, May 2, 2012. We can only accept check, money-order, or a cashier's check.

Please understand that the SESAME Office does not have permission to issue refund checks. If a situation occurs where a teacher has to withdraw from a course after paying, then that balance will be applied to a future SESAME course.

CPS will no longer provide the tuition subsidy for teachers. All teachers who wish to participate in the SESAME Program will now have to self-fund their course. The participation fee will remain at our already low price of \$500 per course.

## DATES & TIMES

All classes are held on the following nine Wednesdays from 4:00 P.M. to 7:15 P.M.

March 28  
 April 11  
 April 25  
 May 2  
 May 9  
 May 16  
 May 23  
 May 30  
 June 6

Class will not meet on April 4 and April 18 due to CPS Spring Break and Report Card Pickup Day, respectively.



Eckhart Hall



Ryerson Hall

## ATTENDANCE

- Teachers must not miss more than two sessions. Missing more than two will result in a grade of "Incomplete".
- Unless the teacher arrives within the first 30 minutes of a class, he/she will be marked absent. Chronic tardiness will result in a grade of "Incomplete".
- Attendance for the final day (June 6, 2012) is mandatory unless arrangements have been approved by the Director of SESAME Paul J. Sally and the course instructor.
- Attendance for the first day of *Middle Grade Curriculum, Philosophy & Instructional Methods* is mandatory. Failure to attend will result in withdrawal from the course.

## CLASS LOCATIONS

- Eckhart Hall 5734 S. University Ave / 1118 E. 58<sup>th</sup> Street
- Ryerson Hall 1100 E. 58<sup>th</sup> Street

## UPDATE...

All final grades for SESAME classes will now be a "letter grade" (A, B, C, D, F). This was implemented on January 2012.

## SPRING 2012 COURSES

### REQUIRED COURSE FOR ANY ILLINOIS ENDORSEMENT:

#### Math 51300: Early Adolescent Psychology

- Instructor: Nicole Baltazar
- Location: Eckhart Hall, Room to be announced
- ISBE Requirement Area: Required for any Middle Grade Endorsement
- Cost: \$500

#### Math 51200: Middle Grade Curriculum, Philosophy & Instructional Methods

- Instructor: Linda Hunt
- Location: Ryerson Hall, Room 358
- ISBE Requirement Area: Required for any Middle Grade Endorsement
- Cost: \$500

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### SESAME'S ALGEBRA INITIATIVE COURSE:

#### Math 52200: Algebra II

- Instructor: John Boller
- Location: Eckhart Hall, Room to be announced
- Prerequisite: Math 50900: Introduction to Algebra *or with special permission from director Paul Sally.*
- Cost: \$500

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### SESAME CONTENT-COURSES FOR MATHEMATICS:

#### Math 50300: Number Theory *(with emphasis on the Arithmetic of Fractions)*

- Instructor: Paul J. Sally, Jr.
- Location: Eckhart Hall, Room 206
- ISBE Requirement Area: Number Theory/Modern Algebra
- Cost: \$500

#### Math 51000: History of Mathematics

- Instructor: Julia Kreinin
- Location: Eckhart Hall, Room to be announced
- ISBE Requirement Area: History of Mathematics
- Cost: \$500

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### SESAME CONTENT-COURSE FOR SCIENCE:

#### Bios 50700: Environmental Science

- Instructor: Aurie Wilk
- Location: Ryerson Hall, Room to be announced
- ISBE Requirement Area: Biological Science
- Cost: \$500



## SPRING COURSE DESCRIPTIONS

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*Required Course for Any Illinois Endorsement in the Middle Grades:*

### **Math 51300: Early Adolescent Psychology**

This class is required for any Illinois Endorsement in the Middle Grades. The first half of this course explores adolescent development: biological, cognitive, social, moral, identity, psychosexual, and special issues relevant to adolescence. Adolescent risk-taking, the development of gender identity, self-concept and self-esteem are reviewed. Historical and cross-cultural contexts will also be examined. During the second half of this course issues related to working with students who may have special needs or circumstances are explored. The teacher's role in the identification, assessment, and referral of students to health and social services is examined.

### **Math 51200: Middle Grade Curriculum, Philosophy & Instructional Methods**

Required for any Illinois Endorsement in the Middle Grades, this course will provide practicing teachers with further knowledge and understanding of the unique intellectual, social, emotional, physical, and developmental characteristics and needs of the young adolescent. Teachers will develop middle school lessons to be shared with their peers in this course and used with their middle school students in the future.



### *Mathematics Content-Courses*

#### **Math 50300: Number Theory**

In this number theory course, you will learn about the rules of arithmetic, the well-ordering principle, division algorithm, Euclidean algorithm, primes and divisibility, palindromes, Fibonacci numbers, Egyptian fractions and much more.

#### **Math 51000: History of Mathematics**

Some of the topics discussed in this course will be Euclid's elements, Descartes' geometry, and Apollonius' conic sections. This course will investigate the different ways in which people have thought about and used mathematics in the past, and how they affect the student of present day mathematics.

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### *Science Content-Courses*

#### **Bios 50700: Environmental Science**

Environmental Science will be taught in context as a course in a modern science curriculum and will comply with the Illinois Standards for Teaching and Learning. Science as Inquiry and Hands-on Science will be emphasized throughout the course. Topics such as flow of energy through ecosystems, populations, hierarchy in biological organizations, cycles in nature, environmental social dilemmas, and current topics in ecology will be discussed. Teachers will leave with a wealth of instructional materials to use in their classrooms to implement a strong environmental science program of their own.

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### *Algebra Initiative Course*

#### **Math 52200: Algebra II**

*\*Prerequisite: Math 50900: Introduction to Algebra or with special permission from director Paul Sally.*

This is the second of three courses in the Algebra Initiative series. Some of the material covered will be linear functions, system of linear equations, rational expressions, and exponential and logarithmic functions.

# DIRECTIONS FOR APPLYING

## APPLY WITH THE SESAME PROGRAM

1. Complete ALL sections of the SESAME Spring Registration Form.
2. Indicate your class choice
3. Fax your registration form to the University of Chicago Mathematics Department Office:  
(773) 702-9787, Attn: SESAME

*or mail it to:*

SESAME Program  
University of Chicago, Department of Mathematics  
Eckhart Hall 214  
5734 S. University Avenue  
Chicago, IL 60637

If you have any questions regarding SESAME registration, please contact Jennifer Zimmerman, Associate Director, at [sesame@math.uchicago.edu](mailto:sesame@math.uchicago.edu) or (773) 702-7389.

## FUNDING

### • **Self Funded**

The cost of participation is \$500 per course. Invoices are mailed when a teacher is officially registered for a course and the payment will be due on Wednesday, May 2, 2012. We can only accept check, money-order, or a cashier's check.

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### • **Regarding the CMSI Tuition Subsidy**

CPS will no longer provide the tuition subsidy for teachers. All teachers who wish to participate in the SESAME Program will now have to self-fund their course. The participation fee will remain at our already low price of \$500 per course.

# SESAME Program Spring 2012 Registration

Today's Date \_\_\_\_\_

Name \_\_\_\_\_  
(Last) (First) (M.I.)

## Personal Information

Home Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

Primary Email Address: \_\_\_\_\_

CPS Email Address \_\_\_\_\_

Social Security # \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Gender \_\_\_\_\_  
(M / F)

Date of Birth \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Place of Birth \_\_\_\_\_  
(MM/DD/YY) (CITY, STATE, COUNTRY)

## School Information

Where do you teach?  
\_\_\_\_\_

What grade and subject?  
\_\_\_\_\_

## Other Information

Why are you taking this SESAME Course? (Check all that apply)

ENDORSEMENT (MATH/SCIENCE)       LANE CREDIT       ALGEBRA INITIATIVE

◆ Seminars for Endorsement of Science and Mathematics Educators ◆

SESAME Program - University of Chicago  
5734 S. University Avenue, Chicago, IL 60637  
Phone: (773) 702-7389 ◆ Fax: (773) 702-9787  
Email: [sesame@math.uchicago.edu](mailto:sesame@math.uchicago.edu)

# SESAME Program Spring 2012 Registration

Name \_\_\_\_\_  
(Last) (First) (M.I.)

**Funding Type**

What is your funding type?  SELF-FUNDED  
 OTHER \_\_\_\_\_

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*CPS will no longer provide the tuition subsidy for teachers. All teachers who normally applied for the CMSI Tuition Subsidy will now have to self-fund their course.*

**Course Choices**

*You will be placed into your first choice, provided there is space available.*

	Course Number	Course Name
First choice		
Second choice		

**Course Offerings – Spring 2012**

- Math 51300: Early Adolescent Psychology**
- Math 51200: Middle Grade Curriculum, Philosophy & Instructional Methods**
- Math 50300: Number Theory** *(with emphasis on the Arithmetic of Fractions)*
- Math 51000: History of Mathematics**
- Math 52200: Algebra II**
- Bios 50700: Environmental Science**

**MAIL THIS FORM TO:**      **SESAME Program**  
**University of Chicago**  
**Eckhart Hall 214**  
**5734 S. University Avenue**  
**Chicago, IL 60637**

**OR FAX TO:**                      **(773) 702-9787**

**QUESTIONS?**  
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◆ Seminars for Endorsement of Science and Mathematics Educators ◆

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