

Summer 2008 Short-Course Offerings

MATHEMATICS

<p>Using the TI-84 to Achieve Algebra I HSCEs (session 1) M/S Center Staff</p>	<p>June 9 & 10 1 Graduate Credit Hour</p>	<p>Designed for those who have little to no experience with a graphing calculator. This workshop will include basic instruction in how to use a TI-84 to achieve the High School Content Expectations for Algebra I.</p> <p style="text-align: center;">CANCELLED</p>
<p>Using the TI-84 to Achieve Algebra I HSCEs (session 2) M/S Center Staff</p>	<p>June 11 & 12 1 Graduate Credit Hour</p>	<p>Designed for those who have some experience with a graphing calculator. Activities will include the use of the Calculator Based Ranger (CBR) and Calculator Based Laboratory (CBL). Focus will be on the High School Content Expectations for Algebra I.</p> <p style="text-align: center;">CANCELLED</p>
<p>Out of This World Mathematics (Part 1) Grades 6-8 M/S Center Staff</p>	<p>June 16 & 17 1 Graduate Credit Hour</p>	<p>This workshop will include, <u>more</u> hands-on activities, games and assessment strategies that address the grade level content expectations (GLCE's) for grades 6-8.</p>
<p>Out of This World Mathematics (Part 2) Grades 6-8 M/S Center Staff</p>	<p>June 18 & 19 1 Graduate Credit Hour</p>	<p>This workshop will include, <u>more</u> hands-on activities, games and assessment strategies that address the grade level content expectations (GLCE's) for grades. Part 1 IS NOT a prerequisite.</p>
<p>Geometry for Grades 3-5 M/S Center Staff</p>	<p>June 18 & 19 1 Graduate Credit Hour</p>	<p>This workshop will focus on the GLCEs in Geometry for grades 3 through 5. Includes a number of methods, hands-on activities, children's literature, and general ideas for reaching your students.</p> <p style="text-align: center;">CANCELLED</p>
<p>Number 6-8 "Feel the Power" M/S Center Staff</p>	<p>July 1 & 2 1 Graduate Credit Hour</p>	<p>Teaching about exponents leaving you frustrated and your students confused? Taking a look at the GLCEs for grades 6-8 and combining that with hands-on, constructivist activities, promises a busy, rewarding workshop.</p>
<p>Middle School Mathematics for Diverse Learners M/S Center Staff</p>	<p>July 9 & 10 1 Graduate Credit Hour</p>	<p>Specifically designed with special education students in mind, this workshop will provide techniques and strategies that can be used for students struggling with mathematics.</p>
<p>Algebra for Grades 3-5 M/S Center Staff</p>	<p>July 14 & 15 1 Graduate Credit Hour</p>	<p>This workshop will focus on the GLCEs in grades 3 through 5 that are crucial to students being successful in algebraic thinking. A variety of methods and strategies will be addressed.</p>
<p>Geometry 6-8 "Going in Circles" M/S Center Staff</p>	<p>July 16 & 17 1 Graduate Credit Hour</p>	<p>Explore circles from all aspects. Surface area, circumference, area, vocabulary and application will all be topics in this well-rounded workshop.</p> <p style="text-align: center;">CANCELLED</p>
<p>Math Exploratory Grades 3-5 M/S Center Staff</p>	<p>July 28 & 29 1 Graduate Credit Hour</p>	<p>Participants will explore nine week-long units that will provide hands-on, engaging mathematics for students.</p> <p style="text-align: center;">CANCELLED</p>
<p>K-2 GLCE's "Hands-On" M/S Center Staff</p>	<p>Aug. 18-19 1 Graduate Credit Hour</p>	<p>Focus on GLCE's "Hands-On" in Mathematics for grades K-2.</p> <p style="text-align: center;">CANCELLED</p>

TECHNOLOGY

<p>Math & Science Internet Workshop <i>Elem./M.S./H.S.</i> M/S Center Staff</p>	<p>June 23-27 2 Graduate Credit Hours</p>	<p>Participants have a chance to explore and verify identified Internet sites which address the Grade Level Content Expectations (GLCE's) in math and science and to research new sites which may be included in the latest editions of the MASER disks. Previous Internet experience is expected.</p>
<p>Multi-Media As An Instructional Tool <i>Elem./M.S./H.S.</i> M/S Center Staff</p>	<p>July 21-25 2 Graduate Credit Hours</p>	<p>This week-long course will expose teachers to instructional software which can be used in lesson preparation. Time will be spent in developing instructional units for mathematics and science using PowerPoint and the Internet. Some familiarity with PowerPoint, and the Internet is essential.</p> <p style="text-align: center;">CANCELLED</p>

SCIENCE

Mid-Level Electricity and Magnetism <i>Upper Elem./M.S</i> M/S Center Staff	June 16-20 2 Graduate Credit Hours	Explore these new physical science expectations for K-7 by focusing in on these topics from the mid-level point of view. Regardless of the specific grade level you teach, you'll come away with many new teaching ideas. Join in on the hands-on instruction presented by M/S Center Staff.	
Who Needs Plants? <i>Elem.</i> M/S Center Staff	June 16-20 2 Graduate Credit Hours	Plants are the perfect living organism to experiment with - they're inexpensive to grow from seed and pretty harmless. We will explore ways to use plants & plant parts in the classroom - including tying in arts & crafts, writing & poetry, along with environmental issues and some history around our primary focus, the science of plants. A tight alignment of the new elementary expectations has been done for this workshop.	
Geology of the Solid and Fluid Earth <i>Elem.</i> M/S Center Staff	June 16-20 2 Graduate Credit Hours	Explore the K-4 Solid Earth and Fluid Earth Science Grade Level Content Expectations (GLCE's) with hands-on activities. Investigate ways humans change these environments that are both harmful and helpful for themselves and other organisms. <p style="text-align: center;">CANCELLED</p>	
Earth in Space and Time Upper Elem./M.S M/S Center Staff	June 23-27 2 Graduate Credit Hours	Astronomy - Out of This World for grades 4-8 This workshop will take you through the seasons, constellations, astronomy technology, the solar system and much more, all done in a teacher-friendly hands-on manner. Join the experienced staff as they maneuver through the high points and hazards of space with the younger set.	
Michigan Environmental Education Curriculum Support Workshop (MEECS) <i>M.S./H.S.</i> M/S Center Staff	June 23 June 24 August 12 August 13 1 Graduate Credit Hour	The goal of this DEQ supported project is to provide teachers, grades 4 through 9, with materials and benchmark-based lessons on environmental education. Both science and social studies standards are included. Topic selection is based entirely on participant interest where one or more titles may be chosen. Selecting two different titles will allow for the possibility of taking them for one (1) graduate credit hour with payment to SVSU for that credit. Each topic includes a set of highly regarded teaching materials including a set of activities, charts, posters, maps, and CD-ROMs some of which may be used in daily instruction. For more information about the specific content of MEECS go to www.michigan.gov/deq-meecs <p style="text-align: center;">CANCELLED</p>	
MEECS	June 23	Topic: Water Quality for gr 6-8 <p style="text-align: center;">CANCELLED</p>	Special Note: It is possible to enroll in one or more topics at a prorated fee, but if the enrollee is taking this workshop for the graduate credit, attendance is required fully for two or the three topics and at the usual SVSU graduate credit rate in addition to the workshop fee.
MEECS	June 24	Topic: Air Quality for gr 7-9 <p style="text-align: center;">CANCELLED</p>	
MEECS	August 12	Topic: Ecosystems & Biodiversity for gr 4-6 <p style="text-align: center;">CANCELLED</p>	
MEECS	August 13	Topic: Water Quality for gr. 6-8 (repeat of June 23) <p style="text-align: center;">CANCELLED</p>	
Geology of Mackinac Island <i>Elem./M.S./H.S.</i> Dr. Timothy Clarey	June 25-26 1 Graduate Credit Hour	Designed for K-12, this course examines the unique geologic features of Mackinac Island, including bedrock history and the effects of the Pleistocene glaciation. Meets one day at Delta College, and one day on the island to view the geologic features. Students will travel by van on June 26 th to and from the island. <p style="text-align: center;">CANCELLED</p>	
Chemistry Experiments for the New Expectations <i>Upper MS/HS</i> M/S Center Staff	June 23-27 2 Graduate Credit Hours	A well documented lab manual of updated chemistry lab activities will be shared with the group. Much time will be spent in doing and sharing the many labs included in this manual and how they apply to the new High School Science Content Expectations. (HSSCE)	
Alternative Energy Garage <i>M.S./H.S.</i> Dr. Christopher Schilling	July 7-11 2 Graduate Credit Hours	Laboratory introduction to the science & technology of alternative energy, including wind, solar, hydrogen, biodiesel, ethanol, and solid biomass. Fueling furnaces with biomass. Powering internal combustion engines with biofuels. Small-scale electricity production. Environmental, societal, and economic implications of alternative energy will be covered.	
Hands-On Organization of Living Things & Ecosystems <i>Elem./M.S.</i> M/S Center Staff	July 14-18 2 Graduate Credit Hours	Life Science for K-8 Participants will experience a wide variety of activities applicable to life science teaching. Create a computerized clay animation of an animal's life cycle; experience an outdoor habitat to help bring the real world inside to your classroom; and perform lab investigations with plants, owl pellets, and insects. These and other areas are among the week's topics. <p style="text-align: center;">CANCELLED</p>	
Electron Microscopy <i>H.S.</i> Dr. Sally Shepardson	July 14-18 2 Graduate Credit Hours	This workshop is designed for high school science teachers. It will concentrate on cell structure at the ultrastructural level using micrographs the participants product with transmission and scanning electron microscopes. Teachers will learn basic electron microscopy theory and specimen preparation through demonstrations and lectures. The majority of the time will be spent using the electron microscopes to produce a portfolio of micrographs that illustrate cell structure in biological specimens. In addition to instruction on the use of electron microscopes, participants will also receive training on high resolution scanners and printers. THIS COURSE IS LIMITED TO SIX (6) PARTICIPANTS.	

Entomology <i>H.S.</i> Dr. David Stanton	July 21-25 2 Graduate Credit Hours	Participants will have the opportunity to collect and identify insects from various local habitats. Discussion of morphology, ecology, reproduction, and evolution of insects will highlight the in-class portion of the course. Synoptic collection required. CANCELLED
Hands-On Geology <i>Elem./M.S.</i> M/S Center Staff	July 22-24 1 Graduate Credit Hour	Materials for this 3-day course have been tied to the new K-7 Science Content Expectations. The teaching of rocks, fossils, and minerals can be a challenge for grades 3-7 unless it involves heavy student involvement. This Short course will immerse participants in numerous hands-on activities meant to stimulate student interest and to help bring this topic alive. Facets of earth history, along with surface features, mapping, and man's impact on the environment are topics which will be addressed in a hands-on manner.
Renewable Energy in the Science Classroom <i>Elem./M.S./H.S.</i> M/S Center Staff	July 28-Aug 1 2 Graduate Credit Hours	The concept of this course is how to teach the new standards and benchmarks in science K-8 or K-12 using renewable energy technologies. The science behind wind, solar, and biofuels will be explored and related to today's science classroom. As most teachers may be familiar with what these technologies are, most have never seen, used, or experienced them up close and may or may not have any ideas as to how they can be taught.
Properties of Matter/Changes in Matter <i>Upper Elem/M.S.</i> M/S Center Staff	August 4-8 2 Graduate Credit Hours	Physical science expectations for these areas can now be found starting at 2 nd grade. Many teaching suggestions including activities and readily available resources will be shared during this week of concentrated application of these fundamental principles of matter.
Astronomy Basics for the Telescope User <i>Upper Elem/MS/HS</i> M/S Center Staff at Delta College	August 18-19 1 Graduate Credit Hour	Observational astronomy is a growing hobby. Open to any teacher needing a little reinforcement navigating the night time sky using a telescope. Learning what's where is half the battle. Now let's find it. One night of outdoor viewing is required for credit. Viewing date and time will be determined by the group, likely to be the evening of the 18 th or 19 th weather permitting or night to be determined.

The Workshop fee for each five day workshop is \$350.00 (\$175.00 for a two day workshop) per person.
(*exception: MEECS workshop is \$90 per day. You must attend two(2) days if taking for graduate credit.*)
This covers the cost of materials and lunch each day.

Payment Options: Check (payable to SVSU Math/Science Center), purchase order, or Credit Card** will be accepted for Workshop Fee only. **(Please contact our office for this option).

Graduate Credit is available at an additional cost. You may chose this option on the *first day of class only*.
Current tuition rate is \$ 348.10* per credit hour.

NOTE: *SVSU no longer accepts credit cards to cover tuition costs.*
 YOU MUST PAY BY CHECK OR MONEY ORDER ON FIRST DAY OF WORKSHOP.

A Confirmation letter(s) will be sent to your home address after *June 1, 2008* providing important workshop information.
Refund Policy:

Full refund will be given upon notification two weeks prior to the beginning of the workshop.
No refunds issued after that date.

If you have any questions, please contact the SVSU Regional Math/Science Center
by one of the following: phone: (989) 964-4114 via fax: (989) 790-1614

For the latest information about summer short courses check out an updated copy of this form
before registering at: www.svsu.edu/mathsci-center/

At the discretion of the University, there may be additional fees with this Graduate Credit option.
SVSU does not discriminate on the basis of disability in the recruitment and admission of students, the recruitment and employment of faculty or staff and the operation of any of its programs, services or activities.

SVSU Regional Mathematics and Science Center
Summer 2008 Short Course Registration Form

Please Print Clearly

Name: _____ Home Phone: _____ School Phone: _____
Last Name M.I First Name

Home Address: _____ Are You Currently Enrolled in a SVSU Program? _____
Street City State Zip Yes/No

School District: _____ School Name: _____ Grade Teaching _____ E-mail Address: _____

<input checked="" type="checkbox"/>	Title of Course / Credit Hours (-)	Date Offered	Workshop Fee	Amount Due	<input checked="" type="checkbox"/>	Title of Course / Credit Hours (-)	Date Offered	Workshop Fee	Amount Due
SCIENCE Workshops					TECHNOLOGY Workshops				
<input type="checkbox"/>	Electricity & Magnetism (2)	June 16-20, 2008	\$ 350.00		<input type="checkbox"/>	Math & Science Internet Workshop (2)	June 23-27, 2008	\$ 350.00	
<input type="checkbox"/>	Who Needs Plants? (2)	June 16-20, 2008	\$ 350.00		<input type="checkbox"/>	Multi-Media As An Instr. Tool (2)	July 21-25, 2008	\$ 350.00	CANCELLED
<input type="checkbox"/>	Geology of the Solid & Fluid Earth (2)	June 16-20, 2008	\$ 350.00	CANCELLED	MATHEMATICS Workshops				
<input type="checkbox"/>	Michigan Environmental Education Curriculum Support (MEECS) (1)	Select two (2) days for credit	\$175.00 Two days		<input type="checkbox"/>	Using TI-84 to Achieve Algebra I #1 (1)	June 9-10, 2008	\$ 175.00	CANCELLED
<input type="checkbox"/>	Monday= Water Quality(6/23)		\$ 90 per day	CANCELLED	<input type="checkbox"/>	Using TI-84 to Achieve Algebra I #2 (1)	June 11-12, 2008	\$ 175.00	CANCELLED
<input type="checkbox"/>	Tuesday= Air Quality(6/24)				<input type="checkbox"/>	Out of This World Math #1 for Gr 6-8 (1)	June 16-17, 2008	\$ 175.00	
<input type="checkbox"/>	Tuesday= Ecosystems & Biodiversity (8/12)		\$ 90 per day	CANCELLED	<input type="checkbox"/>	Out of This World Math #2 for Gr 6-8 (1)	June 18-19, 2008	\$ 175.00	
<input type="checkbox"/>	Wednesday= Water Air Quality (8/13)				<input type="checkbox"/>	Geometry for Gr. 3-5 (1)	June 18-19, 2008	\$ 175.00	CANCELLED
<input type="checkbox"/>	Earth in Space and Time (2)	June 23-27, 2008	\$ 350.00	CANCELLED	<input type="checkbox"/>	Number 6-8 "Feel the Power" (1)	July 1-2, 2008	\$ 175.00	
<input type="checkbox"/>	Chemistry Experiments (2)	June 23-27, 2008	\$ 350.00		<input type="checkbox"/>	MS Math for Diverse Learners (1)	July 9-10, 2008	\$175.00	
<input type="checkbox"/>	Geology of Mackinac Island (1)	June 25-26, 2008	\$ 175.00	CANCELLED	<input type="checkbox"/>	Algebra Gr. 3-5 (1)	July 14-15, 2008	\$ 175.00	
<input type="checkbox"/>	Alternative Energy Garage (2)	July 7-11, 2008	\$ 350.00		<input type="checkbox"/>	Geometry 6-8 "Going in Circles" (1)	July 16-17, 2008	\$ 175.00	CANCELLED
<input type="checkbox"/>	Orgn of Living Things & Ecosystems (2)	July 14-18, 2008	\$ 350.00	CANCELLED	<input type="checkbox"/>	Math Exploratory Gr 3-5	July 28-29, 2008	\$ 175.00	CANCELLED
<input type="checkbox"/>	Electron Microscopy (2)	July 14-18, 2008	\$ 350.00		<input type="checkbox"/>	K-2 "The GLCE's, Hands On"	August 18-19, 2008	\$ 175.00	CANCELLED
<input type="checkbox"/>	Entomology (2)	July 21-25, 2008	\$ 350.00	CANCELLED	**TOTAL WORKSHOP FEE DUE WITH REGISTRATION**				
<input type="checkbox"/>	Hands-On Geology (1)	July 22-24, 2008	\$ 175.00		Please complete & return this portion payable to: SVSU Regional Math & Science Center 7400 Bay Road University Center, MI 48710				
<input type="checkbox"/>	Renewable Energy in Classroom (2)	July 28-Aug 1, 2008	\$ 350.00						
<input type="checkbox"/>	Matter/Changes in Matter (2)	Aug. 4-8, 2008	\$ 350.00						
<input type="checkbox"/>	Astronomy Basics for Telescope User (1)	Aug. 18-19, 2008	\$ 175.00						

Confirmation letters will be mailed to home address.

Graduate Credit is available at an additional cost. You may chose this option on the *FIRST DAY OF CLASS only*.
 For the latest info about summer short courses check out an updated copy of this form before registering at: www.svsu.edu/mathsci-center/

Date: _____	Payment: _____
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