

## **Summer 2007 Math/Science Partnership Classes at Dickinson State University**

***Math/Science Partnership*** classes are brought to you through a grant received by Dickinson State University and area K-12 school districts. All books, materials, and course fees (except \$10 registration fee) are paid by the grant. Please contact Karen Nelson (483-2137) at DSU if you have any questions. These are the final offerings of our grant.

***Audience:*** Courses are open to K-12 teachers, aides, administrators, specialists, and teacher education students.

***To register*** for any of these classes, please call **Joanne Fields at the West River Teacher Center (701 482-2166 or 1-866-496-8797)**. There is a \$10 registration fee.

***Class times:*** All classes are from 8 a.m. MDT to 4:30 p.m. MDT, unless noted.

***Class location:*** All classes will be held in Murphy Hall on the main campus of Dickinson State University.

***Course Credit:*** All classes are available for graduate workshop credit through Minot State or undergraduate credit through Dickinson State. Stipends are available. Cost is \$60/credit for graduate workshop credit; \$50/credit graded undergraduate credit.

***Lodging:*** Dorm rooms may be available for \$10/night if you wish to stay on campus during the class. Dorm rooms are not air-conditioned. You will need to bring your own bedding and towels. Showers are available. Phone lines are in the rooms, but please bring you own phone if you wish to have one. **DORM ROOMS ARE NOT AVAILABLE JUNE 18-20 DUE TO THE NUMBER OF STUDENTS ON CAMPUS FOR OTHER EVENTS.** If you wish to schedule a room, please tell Joanne when you register.

***Stipends:*** \$75/day

### **Course Offerings—Summer 2007**

**K-8 Science Institute (1<sup>st</sup> section)—May 29-31 and June 4-6**—This workshop is designed to strengthen elementary and middle school science teachers' understanding of science concepts. Each day will focus on a different content standard with daily attention to inquiry. A variety of teaching strategies and classroom activities will be explored. Instructors: Drs. Deborah DeMarey and Corinne Krauss, 2 credits

**K-8 Science Institute (2nd section)—June 18-20 and June 25-27**—repeat of above, 2 credits

## **Special Science Classes (Thursday, Friday)—please note special times of classes**

**June 7-8 ND Wildflowers: Dr. Deborah DeMarey, instructor; 1 credit.** Can you identify our wildflowers? Join us on our excursion into the field to see the wildflowers and see their beauty in their natural environment. **Jun 7--8 a.m.-6:30 p.m., June 8--8 a.m.-2 p.m. MDT**

**June 14-15 Birds of SW ND: Dr. Deborah DeMarey, instructor; 1 credit.** Join us on our bird watching trip around the area. We will explore the characteristics of the birds, their migration paths, and note their “daily living” habits. **June 14—8 a.m.-6:30 p.m., June 15 8 a.m.-2 p.m. MDT**

**June 21-22 Exploring the Planets: Dr. Corinne Krauss, instructor; 1 credit.** Are there 8 planets in our solar system or 9? This workshop will examine each of the planets in our solar system as well as moons, comets, and asteroids. We will discuss the most current findings from several of NASA’s space probes and we will look at the debate over whether or not Pluto should be considered a planet. This workshop includes a night-time telescope observing session. **June 21 8 a.m.-5 p.m., telescope observing 9:30-11 p.m.; June 22 8a.m.-2 p.m. MDT**

**June 28-29 Exploring the Universe: Stars and Galaxies—Dr. Corinne Krauss, instructor; 1 credit.** The Milky Way Galaxy contains 100 billion stars, and there are 100 billion galaxies in the universe. We will examine how stars and galaxies are formed and what changes they go through during their existence. Topics for discussion will include our sun, red giants, white dwarfs, supernova, black holes, and more. Included is a night –time telescope observing session. **June 28 a.m.-5 p.m., telescope observing 9:30-11:00 p.m.; June 29 8 a.m.-2 p.m.**

## **Math Classes:**

**June 18-20— K-8 Math Follow-up sessions—Even if you have not taken the K-8 Math Institute, you are welcome to join us for our final sessions. Instructors: Arlene Mitchell and Clare Heidema, 1 credit.** During these three days, participants will explore fractions, assessing student work, and reading and writing in mathematics. Participants will leave with a better understanding of how students learn and with a variety of strategies to help students. Class times: 8 a.m.-4:30 p.m. each day.

**\*\*\*July 10-20—Numerical Reasoning K-12 (offered in Bismarck)--** Many think that “Numerical Reasoning” is only taught in the elementary school, but take a look at this problem that will be presented in the 9-day session: **The Marriage Problem** In a town,  $\frac{4}{5}$  of the men were married to  $\frac{1}{3}$  of the women. What fraction of the people in the town were married? **Challenge #1:** Can you represent a solution to this problem algebraically? Geometrically? **Challenge #2:** What wrong answers would you expect from students and why? Contact person to register and more further information: Lori Gibson, Bismarck Public Schools—701 355-3067—4 credits \*NO STIPEND GIVEN FOR THIS COURSE