XIDS 2002LCE **What Do You Really Know about Frontiers in Space Science?**
Fall 2007 Tuesday 8:30 – 10:45 am

Instructor:	1). Dr. S. Basu-Dutt, sbdutt@westga.edu;	2) Dr. Rebecca L. Dodge, rdodge@westga.edu
Office:	TLC 2131	GEOG 8
Office Hours	M: 9 – 11 am; W: noon – 2 pm all other times by appointment	M - F 2 – 3 pm all other times by appointment
Phone:	678-839-6018	678-839-4067

Faculty Contact Information:

Name	Dept	Phone	Office	@westga.edu
Dr. V. Geisler	Chem	678-839-6405	TLC 3237	vgeisler
Dr. B. deMayo	Physics	678-839-4097	Boyd 105	bdemayo
Dr. Karen Smith	Math	678-839-4124	Boyd 303	ksmith
Dr. M. Rahman	CS			rahmmuh@yahoo.com

Faculty on this list will be available to meet with students in their office during the entire semester. Please contact them via email or telephone to set up an appointment.

Course Description: Frontiers in Space Science is a team-taught, interdisciplinary course designed to expose students to the math and science disciplines. By using an interdisciplinary theme the student will be exposed to various scientific disciplines and their interconnected relationships. The focus of the course will be the diverse applications of science and math in Space. Examples and activities will cover biology, chemistry, computer science, geoscience, mathematics, and physics. The goal of the course is to enhance the students' understanding and appreciation of all disciplines of science.

WebCT Vista: This course has a WebCT Vista site. Most pre-class assignments and quizzes will be done through the site, so you will need to log on every week. Course materials and information will be provided on-line. Also, you will take surveys and submit campus activity reports through WebCT Vista.

Course Format: This is a team taught class with eight faculty participating. Dr. Dutt and Dr. Dodge will be coordinating the course and the other faculty will be leading one of more of the hands-on activities. This course is a guided inquiry course where you are expected to perform experiments, gather data, and analyze information concerning Space Science.

Assessments: Your grade in this course depends on several components:

***Pre-class activities and quizzes*:** You will be expected to complete a WebCT Vista quiz before you come to class on the upcoming activity. All quizzes may be attempted twice.

Activity reports: Throughout the term, you will be asked to complete reports in class. These reports may take any of several forms, including completion of a handout, answering questions, designing a poster presentation, etc. *You* ***must be present in class in order to receive credit on these assignments.*** Students will maintain a folder containing all reports that will be turned in at the end of the semester, including a summary statement of learning outcomes (Final Activity Report Summary).

Post-activity Survey: After each activity, students will complete an on-line survey on WebCT Vista assessing learning outcomes of each day's activities.

***Space Science in the News report*:** Each week, each student will find a news report from printed media (not an online search) concerning space science. Each of you will keep a notebook in which you will affix the article, and a two-paragraph (or more) discussion of the content of the article. Source and date of the article must be included. Prior to Fall Break, the notebook with seven (7) articles will need to be submitted for review. The entire notebook with fourteen (14) entries will be evaluated end of the semester. **FREE NEWSPAPERS, INCLUDING THE NEW YORK TIMES, THE WALL STREET JOURNAL, AND THE ATLANTA JOURNAL-CONSTITUTION, ARE AVAILABE EACH DAY IN THE LOBBY OF THE USS AND TLC BUILDINGS.**

Transitioning to College Life:
You will attend five (5) **Success Seminars of the Excel Center** and write a brief (one page) summary and response to each of the seminar classes. Each seminar attendance and report is worth 5 points for a total of 3 points x 5 = 15 points. **Success Seminar Sheet Reports Due: Tuesday, December 4**.

You will also attend five (5) different **University sponsored activities** and write a one (1) page paper of what you thought of the event, its positives and negatives to you personally. These activities must all be different types of events. They may include the following: any student club activity; a majors meeting; a Student Activities event; adventure trip of Intramurals; dramatic event; musical performance; health-related lecture; Intramural's team sporting event; BSA activity; political talk or event. Each activity attendance and report is worth 2.5 points for a total of 3 points x 5 = 15 points. **Campus Events Reports Due: Tuesday, December 4.**

Poster Presentation: During the last half of the semester students will research and develop a poster presentation during class concerning observations of natural hazards and/or environmental change from Space platforms, including the Space Shuttle, the International Space Station, and unmanned satellites. This poster will be reviewed by the instructors, and students will make a formal presentation of the poster on the last day of class (**Tuesday, December 4**).

PUNCTUALITY AND CONSIDERATION FOR OTHERS: We expect you to behave professionally in this course, which means considering the effect that your behavior will have on other people involved in the course. Please come to class on time, and do not leave early. Turn off pagers and cellular phones, and do not use them in class. Finally, please hand in assignments on time. The professors' time is also valuable, and late assignments disrupt our scheduling. Late assignments lose 10% per day for tardiness.

ACADEMIC HONESTY POLICY: We take academic honesty very seriously. Plagiarism of any sort will not be tolerated. Plagiarism is the use of someone else's ideas or words as your own. This definition includes copying another student's exam or assignment, as well as using material from a book or Internet site without acknowledging the source. If you plagiarize any part of an assignment for this course, you will receive a zero for the entire assignment, and disciplinary action will be taken.

ACCESSING WEBCT VISTA: You will need to access WebCT Vista for this course from any computer that has Internet access, on or off campus. We will provide you detailed instructions on using Vista on the first day of class. If you need additional help accessing and/or using WebCT Vista, you may come to us for help, or you may contact the Distance Learning helpdesk (678-839-6248) or email distance@westga.edu

Course Grading:

♦ Pre-activity quizzes (12 x 5)	60 points
♦ Activity Reports (8 x 20)	160 points
♦ Post-activity Survey (14 x 3)	42 points
♦ Course Survey	8 points
♦ Space Science in the News Report (10 x 5)	50 points
♦ Transitioning to College	30 points
♦ Poster Presentation	50 points
	TOTAL 400 points

♦ Final Grade

A = 90 – 100% of total points	(360-400 points)
B = 80 – 89% of total points	(320-359 points)
C = 70 – 79% of total points	(280-319 points)
D = 60 – 69% of total points	(240-279 points)
F = less than 60% of total possible points	(<240points)

Course Requirements: 1. Students are expected to attend all class meetings. Students can not come late or leave early.

2. There are **no make-up labs**. Anyone with an excused absence (must provide documentation) must contact me before class or a grade of zero will be given for the investigation report.
3. Students are expected to read and study all assigned material.
4. Students are expected to participate in class discussions.
5. All activity reports are due at the end of class. **No late reports** will be accepted.

Learning Out Comes

- The student is able to apply the material by summarizing current news reports.
- The student will demonstrate knowledge of the material by recording observations, ideas, lab results, and conclusions in the form of activity reports.
- The student will demonstrate understanding of the material by participation in class.
- The student will be able to understand the interdependence of the sciences in real-world applications
- Students will develop oral and written communication skills

Tentative Schedule
(This schedule is subject to change. It is the student's responsibility to check for updates on WebCT)

XIDS 2002 FALL 2007
FRONTIERS IN SPACE SCIENCE Tuesday: 8:30 – 10:45 am
Coordinators: Sharmistha Basu-Dutt, Rebecca Dodge

Date	Discipline	Activity	Faculty
Aug 21	Interdisciplinary	Introduction / History of Science in Space	Dutt/Dodge
Aug 28	Engineering	Model of the International Space Station	Dutt
Sept 4	Engineering	Model of the International Space Station	Dutt
Sept 11	Computer Science	Robotics	Rahman
Sept 18	Computer Science	Robotics	Rahman
Sept 25	Physics	Astronomy	deMayo/Dodge
Oct 2	Math/Physics	Microgravity and Free Fall	deMayo/Smith
Oct 9	Math/Engineering	Rocket building and launching	deMayo/Smith
Oct 16	Engineering	Fuel Combustion	Dutt
Oct 23	Geosciences	Earth Observations from Space	Dodge
Oct 30	Chemistry	Materials in Space	Dutt
Nov 6	Geosciences	Land Cover/Land Use Mapping	Dodge
Nov 13	Geosciences	Guest Speaker – Dr. Russ Congalton, University of New Hampshire	
Nov 20	Chemistry	Solar Power Cells	Geisler
Nov 27	Geosciences	Spectroscopy/Land Cover Change Detection	Dodge
Dec 4	FINAL	Poster presentations	Dodge/Dutt