

Fall 2007 – XIDS 2002 – CSI:UWG

What Do You Really Know about Frontiers in Science and Technology?

Instructor: Dr. Vickie Geisler, vgeisler@westga.edu
Office: TLC 2120 **Phone:** 678-839-6025
Office Hours M 1-5; T 8:15-11:15; W 1-2; R 3-5
Class Schedule: Thursday - 9:30am-11:45am

Faculty Contact Information:

Name	Dept	Phone	Office	@westga.edu
Dr. S. Basu-Dutt	Chem	678-839-6018	TLC 2131	sbdutt
Dr J. Hasbun	Physics	678-839-4087	Boyd 213	jhasbun
Dr. J. Bartley	Geosci	678-839-4054	Callaway 118	jbartley
Dr. M. Swamy	Biology	678-839-4039	Biology 211	smruthin
Ms. Lori Payne	Biology			microbugs5@netscape.com
Dr. M. Rahman	CS			rahmmuh@yahoo.com

If you need to meet with one of the above faculty, please contact them via email or telephone to set up an appointment

Course Description: Frontiers in 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 using scientific inquiry to solve crimes. Data will be analyzed from biology, chemistry, computer science, geosciences, mathematics, and physics. The goal of the course is to enhance the students understanding and appreciation of all disciplines of science.

Learning Community Goals:

- To create a supportive environment that eases the transition from high school to college
- To develop a community of scholars
- To increase student interaction with faculty
- To increase student engagement in the academic process
- To promote active learning and teamwork skills
- To achieve college and life goals

Course Learning Outcomes:

- The student will demonstrate knowledge of the material by making observations, gathering and analyzing data, and drawing conclusions in reports.
- The student will demonstrate understanding of the material by participation in class discussions.
- The student will demonstrate application of the material learned by participating in a mock trial.
- The student will be able to search a crime scene.
- The student will be able to collect and log evidence.
- The student will be able to measure and determine physical and chemical properties of evidence.
- The student will be able to use various techniques such as PCR to analyze evidence.
- The student will understand the role of science in crime investigations.

WebCT Vista: This course has a WebCT Vista site. All course materials will be provided on-line. **Before each class** you will be expected to log in and read the background material for the activity and take a quiz over this information. After each class you must log in to WecCT Vista and complete a post-activity survey. **WE RECOMMEND YOU SUBMIT YOUR ASSIGNMENTS, SURVEYS AND TAKE YOUR QUIZZES IN A CAMPUS COMPUTER LAB.** However if you choose to use your personal computer you must configure your computer to use WebCT Vista. Go to the WebCT Vista website (<http://webct.westga.edu/>) and click on the arrow in the upper right hand corner of this web page that states "Vista Checklist for Success" and follow the 7 Steps. Good luck! To get help call or email distance education at distance@westga.edu or 678-839-6248.

Course Format: This is a team taught class with multiple faculty participating. Dr. Geisler will coordinate the course and the other faculty will lead one or more of the hands-on activities. This course is a guided inquiry course where you are expected to develop and test theories, and gather and analyze evidence.

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

Pre-activity quizzes: You will be expected to complete a WebCT quiz before class begins on that day's activity. All quizzes will be available for a week beginning Friday morning and ending Thursday by 9:00 am. All quizzes may be attempted twice.

Investigative reports: For each activity, you will be asked to complete a report in class or at home. These reports may take one of several forms, including writing a summary, completing a handout, answering questions, etc. **You must be present in class in order to receive credit for these assignments.** Anyone with an excused absence (provide approved documentation) must contact me before class or a grade of zero will be given for the investigation report. Students will maintain a notebook containing all reports to be turned in at the end of the semester.

Post-activity Survey: After each activity, students will complete a survey on WebCT assessing learning outcomes of each day's activities. **You must be present in class in order to receive credit for these assignments.**

Mock Trial: The final exam will occur December 11th from 11:00 to 1:00 p.m., in TLC 1103. The final will include material from the entire course. Students will serve as defense attorneys, prosecution attorneys and expert witnesses. Dr. Geisler will serve as a judge and the other faculty and teaching assistants will serve as jury members. Students present their professional opinions and exhibits they developed during the course. All expert witnesses must use a visual aid; PowerPoint, poster, etc.

Personal Portfolio: Each student will develop a personal portfolio that will include: (i) setting short and long term career and academic goals, (ii) self analyses to identify strengths and weaknesses, (iii) developing strategies that will help overcome weaknesses, optimally utilize strengths to help fulfill one's academic and career goals, and (iv) one page paper discussing your dream job. Many of these will be done as *in-class writing*. If you are not in class, you will not get credit for these assignments. The portfolio will be discussed several times during the semester with the course instructor.

Notebook: At the end of the semester each student will be asked to turn in their notebook. The notebook should contain: (i) all investigative reports in order, (ii) your personal portfolio, (iii) notes and story summaries, (iv) other items requested by the instructor.

Campus activities. To involve students in the total life of the university you must attend and report on at least two (2) **academic** events and participate in a minimum of 6 UWG I-20 activities. The academic events can be any academically oriented campus event. To receive credit for attending the academic events, you will need to write a paragraph or two describing the event, and hand it in over WebCT. In these summaries, you should very briefly describe the main points of the event, state what was most useful or interesting to you, and explain why. If you are not sure whether an event is suitable to fill this requirement, just ask. You will need to turn in your passport for the UWG I-20 activities.

POLICIES

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.

ACCESSING WEBCT VISTA:

- Log in myUWG
- Click the myCourses tab. A list of your courses that have a WebCT site will appear. Just click on this course name (What do you really know abt)
- Login to WebCT Vista. Your "User Name" is the beginning of your email address without the @my.westga.edu and your initial "password" is the last two digits of your birth year followed by the last four digits of your social security number.
- Change your password – Click on "change password" on the upper right hand corner of the window and follow the directions.

MyUWG E-MAIL ACCOUNT: University of West Georgia students are provided a MyUWG e-mail account. The University considers this account to be an official means of communication between the University and the student. The purpose of the official use of the student e-mail account is to provide an effective means of communicating important University related information to UWG students in a timely manner. It is the student's responsibility to check his or her email.

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 assignment or work, 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.

Course Grading:

- ◆ Investigation Reports 130 points
- ◆ Pre-activity quizzes 65 points
- ◆ Post-activity surveys 30 points
- ◆ Mock Trial 40 points
- ◆ Portfolio 15 points
- ◆ Notebook 10 points
- ◆ End of Course survey 5 points
- ◆ Campus activities 5 points
- ◆ Final Grade 300 points

- A = 90 – 100% of total points (270-300 points)
- B = 80 – 89% of total points (240-269 points)
- C = 70 – 79% of total points (210-239 points)
- D = 60 – 69% of total points (180-209 points)
- F = less than 60% of total possible points (< 180 points)

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

	Date	Topic	Room	Instructor
Aug	16	Syllabus, Introduction, 1 st Crime Scene	TLC 1103	<i>Dr. Geisler</i>
	23	Measurements, projectiles	TLC 1103	
	30	Steganography & fraudulent email	TLC 1117	<i>Dr. Rahman</i>
Sept	6	Time of death	BOYD 201	<i>Dr. Hasbun</i>
	13	Drug testing	TLC1103	<i>Dr. Geisler</i>
	20	Drug testing	TLC1103	<i>Dr. Geisler</i>
	27	Soil analysis	Callaway 119	<i>Dr. Bartley</i>
Oct	4	2 nd Crime Scene	TLC 1103	
	11	Fall Break		
	18	Coefficient of friction	BOYD 201	<i>Dr. Hasbun</i>
	25	Fingerprints & Entomology report	TLC1103	<i>Dr. Geisler</i>
Nov	1	Fiber analysis	TLC1103	<i>Dr. Dutt</i>
	8	DNA, blood typing	BIOL 275	<i>Dr. Swamy, Ms. Payne</i>
	15	finish DNA, blood typing	BIOL 275	<i>Dr. Swamy</i>
	22	Thanksgiving Break	TLC 1103	
	29	Guest Speaker/ Mock Trial prep	TLC 1103	
Dec	11	Mock Trial 11-1	TLC 1103	

Reference Texts:

Criminalistics; An Introduction to Forensic Science by Richard Saferstein 8th Ed, Prentice Hall

Forensic Science by Andrew Jackson & Julie Jackson, 2004, Prentice Hall

Forensics for Dummies by D. P. Lyle, 2004, Wiley Publishing

The Forensic Casebook by N.E. Genge, 2002, Ballantine Books

HELPFUL HINTS FOR COLLEGE

Go to class! This is probably the most important thing you can do in this course.

Get involved! Remember, this is *your* education. Stay awake in class; ask questions if there's something you don't understand. Participate in discussions. Taking an active role in your own learning is the best way to learn (and you wind up with a better grade).

Plan your time! You've got a course schedule for this class, and you've probably got them for other classes, too. Get a calendar, and transfer all your exams and due dates onto the same pages. Surprise! There are going to be some weeks, or even some days, where you have two or more things going on at once – two exams the same day, or a paper due on the same day as an exam. Plan ahead to head off possible conflicts.

Ask for help! If you're not doing as well as you like, come see us immediately – don't wait till the end of the term. We'll give you study hints and work on difficult concepts with you.

Surround yourself with positive people!

Organize a study group that really studies!