



Davis & Elkins College
Course Syllabus

Course Number - Title: BIOL 335 – Current Topics in Biology
Department: Biology and Environmental Science

Instructor: Shawn K. Stover, Ph.D.
Office/Office Hours: SC 202; M-F 9:00-10:00
Phone/E-mail:

Academic Term: Spring 2010
Days/Time/Room: Tuesday 12:00-12:50; SC 218
Credits/Prerequisites: 1 credit; BIOL 297

Course Description:

BIOL 335 exposes students to ongoing biological research. Published articles from scientific magazines and peer-reviewed journals will be thoroughly analyzed and discussed. This is a required course for Biology majors.

As part of the course, students will be invited to watch selected episodes of Penn & Teller's *Showtime* TV series "Bullshit," which exposes and debunks pseudoscientific claims and paranormal phenomena. Due to excessive profanity, the Penn & Teller series is intended for mature audiences. Students will be asked to read and sign a participant consent form (attached) if they wish to view the Penn & Teller episodes. Students who are uncomfortable with the strong language can opt out of viewing the episodes, while still participating in the analysis and discussion of journal articles. Participation in this course has been approved by the Davis & Elkins College Institutional Review Board.

Learning Outcomes

By the end of this course, students will be able to:

1. interpret scientific data, as presented in the literature.
2. determine whether authors' conclusions are valid, based on the available data.
3. suggest follow-up studies to address weaknesses in current research.
4. recognize the difference between science and pseudoscience.

Required Texts/Materials:

None

Optional Texts/Materials:

None

Grading

Your grade will be calculated as follows:

A 108-120 points B 96-107 C 84-95 D 72-83 F 0-71

Assignments and Tests:

Each week, 10 points will be available. Earning those points will require attendance, participation in class discussions, and written analysis of journal articles. Final grades will be based on the number of points earned out of a possible 120.

Course Policies

Attendance:

All students must attend every class unless officially excused. Excused absences include representing the College, participating in approved field trips, illness, family emergency, or others as determined by the instructor. Absences in classes immediately before and after holidays are unexcused. Students will be responsible for all course work missed while absent. If you miss a class, you will receive zero points for that week unless you can verify in writing that your absence is excused. You are also expected to show up for class on time. Arriving late for class will cost you 1 point.

Late Assignments:

Written assignments are to be turned in on the due date. If you have a written excuse, you can turn in the assignment within 48 hours and receive full credit. After the 48 hour deadline, no assignments will be accepted.

Classroom Courtesy:

You are expected to show common courtesy during class periods. Turn cell phones off. While group discussion of the assigned topic is necessary, extracurricular conversations during class are disruptive and will not be tolerated. Each time a class is disrupted by informal conversations, perpetrating students will lose 1 point from their total grade.

Academic Honesty: Davis & Elkins College expects its students to pursue their academic careers with integrity. By policy, teachers report instances of cheating and plagiarism to the Dean of Faculty and recommend a penalty, which may be an F on the assignment in question or even expulsion from the course or the College.

Academic Support: The Naylor Learning Center provides academic support by providing tutorial services, the Supported Learning Program and Disability services. Contact The Naylor Learning Center at extension 1384 for more information. Davis & Elkins College ensures that no qualified person shall, by reason of a disability, be denied access to, excluded from participation or denied the benefits of any program or activity operated by the College or be subjected to discrimination under any of its

programs or activities. The College shall make reasonable accommodations to the known limitation of an otherwise qualified student with a disability to enable the qualified student with the disability to have equal access to educational opportunities, programs, and activities (Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act of 1990). The College reserves the right to review documentation and determine individual accommodations and services. The College maintains the right to determine the appropriate accommodation based on the student's documentation.

Course Schedule:

<u>Date</u>	<u>Topic</u>
1/26	Introduction
2/2	Evaluating Information
2/9	Signs From Heaven <i>Penn & Teller BS - Season 3</i>
2/16	The Central Visual System
2/23	Eat This! <i>Penn & Teller BS – Season 1</i>
3/2	Obesity Trends Among U.S. Adults <i>CDC Behavioral Risk Factor Surveillance System</i> How the Low-Carb Craze is Making Us Fat <i>Men's Health</i> (May 2004)
3/8-3/12	<i>Spring Break - No Class</i>
3/16	Near-Death Experiences <i>Penn & Teller BS – Season 1</i>
3/23	Darkness, Tunnels, and Light <i>Skeptical Inquirer</i> (May/June 2004) Stimulating Illusory Own-Body Perceptions <i>Nature</i> (2002) 419:269
3/30	Analyzing Journal Articles
4/6	<i>Advising Day - No Class</i>
4/13	Alien Abductions <i>Penn & Teller BS – Season 1</i>
4/20	Relations Among Hypnagogic and Hypnopompic Experiences <i>Journal of Sleep Research</i> (1999) 8:313-317 Sleep Paralysis in Adolescents <i>Psychiatry and Clinical Neurosciences</i> (2009) 63:546-549
4/27	Alternative Medicine <i>Penn & Teller BS – Season 1</i>
5/4	A Close Look at Therapeutic touch <i>JAMA</i> (1998) 279:1005-1010 Acupuncture for Patients with Migraine <i>JAMA</i> (2005) 293:2118-2125

PARTICIPANT CONSENT FORM

Davis & Elkins College

Project Title: Controversial Topics in Biology

Principle Investigator: Shawn Stover

Purpose of study:

Participation in BIOL 335 will provide students with an opportunity to sharpen their critical thinking skills, allowing them to discriminate between evidence and conjecture. After participating in the course, students should be better prepared to evaluate scientific issues presented by the media.

Brief description of procedures:

Students will watch selected episodes of a *Showtime* TV series starring Penn & Teller, which exposes and debunks pseudoscientific claims and paranormal phenomena. They will then analyze current scientific journal articles describing legitimate research related to the controversial topics.

Authorization: I have read the above, understand the nature of the study, and agree to participate. I understand that I have not waived any legal or human rights, and I have the right to refuse to watch the TV show at any time during the study.

Participant

Date

Principle Investigator

Date