BIOL 6304
College Science Teaching

Instructors:

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Course Information

Course Description
Being an effective college instructor is essential to success as a professional academic. This course is designed for graduate students who are considering careers in higher education in any of a number of different venues from research universities to liberal arts colleges and community/junior colleges. This course will address current teaching strategies, curriculum design, evaluation and trends/issues in science education. Participants will explore a variety of topics relevant to the teaching and learning of science at the college level.

The course is open to all graduate students; but especially those who plan to teach in the sciences (or related fields) at the collegiate level. The course is also designed to help graduate students be effective teaching assistants and to help prepare them for independent teaching later in their careers.

The course will rely heavily on class discussion, papers, and presentations. You will have the opportunity to engage in innovative teaching methods, gain practical teaching experience, and direct/detailed feedback about your progress. The course will also serve as a workshop to help you develop courses, syllabi, and teaching philosophies for future use. By the end of the course, you will know some of the basic terminology, theory, and applications concerning post-secondary teaching as well as practical experience teaching in front of a class.

Student Learning Outcomes
Upon completion of this course, students will be able to:

− apply an understanding of learning physiology and educational psychology to science teaching
— develop and demonstrate proficiency in pedagogy (teaching strategies and classroom management skills), presentation techniques, science curriculum development, and assessments/evaluation appropriate for your field
— discuss of trends, issues, and challenges associated with a career in post-secondary education
— articulate the expectations for college level science teaching
— locate and use appropriate college science teaching resources and associated technologies.
— design and develop a teaching portfolio, compose a teaching philosophy, and develop course syllabi in preparation for seeking employment

Course Delivery

Statement for Synchronous Remote Sessions
To maintain academic quality while accommodating social distancing needs this semester, this course will use a split delivery model that combines face-to-face teaching with remote instruction. The goal is to provide face-to-face instruction to students who want to return to campus, while also allowing students who may need to learn remotely to participate via virtual class sessions.

How Does It Work?
When you are not in the physical class, you will attend live remote sessions at the same time as our scheduled course. You will also be expected to complete coursework via Blackboard.¹

Please refer to this Health and Safety web page² for updated information about campus guidelines as they relate to the COVID-19 pandemic.

Required Texts and Materials
Required:
Paperback available from the ASU Bookstore or Kindle version from Amazon.

Additional readings will be distributed in class or via Blackboard.

Recommended:
Technology Requirements

INTERNET ACCESS IS REQUIRED. Materials will be distributed routinely via Blackboard, an internet-based course support system. You are required to have a Blackboard account and an official ASU email address. We will use these to make announcements, distribute materials (handouts, links to papers, potentially discussion boards) and post grades. You can access blackboard 24/7 at http://blackboard.angelo.edu. Please visit the site regularly. If you are a first time user of Blackboard, your login information is the same as your ASU computer lab login. If you have not used Blackboard before, you may wish to review tutorial at http://blackboard.angelo.edu/tutorial or call the ASU IT Help Desk at 942-2911 (MCS-111) to setup an account.

You will need a means to record your micro-teaching episodes.

Communication

Faculty will respond to email within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

Virtual communication: Office hours and/or advising may be done with the assistance of the Collaborate or by phone.

Assessments

Detailed requirements and assessments will be provided for each assignment. See the schedule for tentative due dates.

− (15%) Teaching Philosophy – This is a statement of how and why you teach and assess students. Almost all universities and community colleges require them. You will write three of these throughout the semester and share them with the class in a specific format to be determined later.

− (20%) Talking Assignments based on Readings – These are specific writing assignments related to the reading that help focus and facilitate class discussions. These will be due at the beginning of most class meetings (see schedule).

− (25%) Course design and Syllabus Construction – You will design a course from the ground up which will include writing a comprehensive syllabus, a text selection justification, class and lab activities, the basis of grading system and assessment measures, sequence or calendar of topics, and exams.
− **(30%) Microteaching Episodes** (2 sessions using different teaching techniques) – You will be assigned a topic in your field to teach using the various methodologies we discuss at three different times during the semester. The episodes will vary in length and real students may be present during your assignment. Your colleagues, the students, and your instructors will critique your teaching. At the end of each of the episodes you will write a reflection paper about the experience (methodologies, assessments, etc.).

− **(10%) Participation & Discussion** (subjective based on a grading rubric). This course functions primarily on participation and that participation is required. Your thoughts, opinions, and analyses are strongly valued and will serve as the basis for class discussion as long as they are topically relevant. Rude, degrading, or offensive comments will not be tolerated. Please review the “ground rules” for discussion below. Attendance is required. Students who arrive late or are absent will be subject to point deduction.

**MORE ABOUT YOUR ASSESSMENTS**

− Unless otherwise states, ALL assignments are due when class officially begins at 6 pm. Assignments turned in after 6 pm (even those at 6:02) will be considered late and subject to an automatic 25% point reduction. The point deduction will increase in increments of 10% until the assignment is turned in or the grade is 0.

− Students who are not present for in-class assignments/discussion will not have the opportunity to make-up these points. Students who arrive late for class will not be given extra time to complete an assignment.

**ATTENDANCE POLICY:** Because participation is a large part of this course, attendance is mandatory. ASU also requires that attendance be checked at each class meeting. Attendance will affect your grade in the course. You are required to attend lecture for the full time each week and are responsible for all information given. (Being absent does not exclude or excuse you from missing information). A modified list of ASU ID numbers (or other means) will be circulated during each meeting. You must initial the space beside your name on the roster. It is your responsibility to locate and sign the attendance sheet. Anyone who does not initial the sheet at each day's meeting will be counted absent. Other means of taking attendance will also be used to cross reference the roll sheet. If you arrive late (meaning after class officially begins), you will be considered tardy. Three tardies will equal one absence.

Students who miss more than 2 classes will have their grade dropped by two full letter grades at the end of the semester unless special permission (verifiable and university recognized) has been granted from the instructors within 24 hours of the absence (no exceptions). Students who leave class early or who leave for an extended period and then return will be counted absent. You must stay for the entire class AND participate to get credit for attendance.
GROUND RULES FOR IN-CLASS DISCUSSIONS:

1. **To earn participation points**, you are required to verbalize your thoughts on the assignments and readings and follow these “ground rules.” You must therefore come prepared by reading and completing the assignment(s) prior to class. To create a climate for open and honest dialogue and to encourage the broadest range of viewpoints, it is important for class participants to treat each other with respect. Name-calling, accusations, verbal attacks, sarcasm, and other negative exchanges are counterproductive and won’t be tolerated.

2. The purpose of class discussions is to generate greater understanding about different topics. The expression of the broadest range of ideas, including dissenting views, accomplishes this goal. However, in expressing viewpoints, students should try to raise questions and comments in way that will promote learning, rather than defensiveness and conflict in other students. Thus, questions and comments should be asked or stated in such a way that will promote greater insight into and awareness of topics as opposed to anger and conflict.

3. Learning is both about sharing different views and actively listening to those with different views. Students in this class are expected to do both. Learning is maximized when many different viewpoints are expressed in the classroom.

4. Keep the discussion and comments on the topic, not on the individual. Rather than personalizing the dialogue, direct challenging comments or questions to the instructor or the entire class. Comments irrelevant to the topic of discussion or those not following these stated rules are not eligible for participation points/credit.

5. Remember that it is OK to disagree with each other. Let's agree to disagree. The purpose of dialogue and discussion is not to reach a consensus, nor to convince each other of different viewpoints. Rather, the purpose of dialogue in the classroom is to reach higher levels of learning by examining different viewpoints and opinions.

6. Everyone is expected to share. Keep in mind that the role of the instructors is to make sure that everyone’s voice is heard in class, make sure that discussion is productive, and provide you with feedback.
Grading System
Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:
- A = 90.00-100 points
- B = 80.00-89.99 points
- C = 70.00-79.99 points
- D = 60.00-69.99 points
- F = 0-59.99 points (Grades are not rounded up)

General Policies Related to This Course
All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog

Academic Integrity
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.

Accommodations for Students with Disabilities
ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability
Services website. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Plagiarism
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the ASU Writing Center.

Student Absence for Observance of Religious Holy Days
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Title IX at Angelo State University
The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including:
sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Miller, J.D.
Special Assistant to the President and Title IX Coordinator
Mayer Administration Building, Room 210
325-486-6357
michelle.boone@angelo.edu

You may also file a report online24/7.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information, visit the Title IX website.12

**Required Use of Masks/Facial Coverings by Students**

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory Facial Covering Policy13 to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.
Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

1 https://angelo.blackboard.com/
2 https://www.angelo.edu/covid-19/returning-to-campus/health-and-safety.php
3 https://www.angelo.edu/current-students/student-handbook/
4 https://www.angelo.edu/academics/catalog/
5 https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96
6 https://www.angelo.edu/current-students/disability-services/
7 https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
8 https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96
9 https://www.angelo.edu/current-students/writing-center/academic_honesty.php
10 https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of
11 http://www.angelo.edu/incident-form
12 https://www.angelo.edu/title-ix