

The University of Texas at El Paso
Department of Computer Science
CS1190/1290 Special Topics in Computer Science:
Foundations/Advancement of Computing Leadership
Spring 2023 Syllabus

Time: Fridays 3:00-5:00 pm (a total of 10 class sessions)

Location: EDUC 302

Instructors:

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Learning Assistants: Andrea Villagomez (avillagomez1@miners.utep.edu) and Tomas Sandoval (tsandoval2@miners.utep.edu)

Learning Management System: Microsoft Teams: Leadership I-II Fall 2023

Office Hours: Upon request.

eTextbook: Komives, S. R., Lucas, N., & McMahon, T. R. (2007). *Exploring leadership: For college students who want to make a difference* (3rd Ed.). San Francisco, CA: Jossey-Bass. Access the book at <https://ebookcentral.proquest.com/lib/utep/reader.action?docID=1192821&ppg=1>

Course Objectives: The ubiquity of technology has continually advanced over the last decade and now demands software engineers who have the technical and professional knowledge and skills to effectively work in a teaming environment. While the technical computing workforce being hired by the software development industry sufficiently possess technical skills, by and large the workforce lacks the professional skills (“soft skills”) to work effectively in this fast-paced market.

The interactive course centers on structured academic controversy with teams assigned opposing topics. Teams (of four, consisting of pairs with opposing positions) will examine a relevant and controversial topic in the computing tech industry; conduct extensive research to prepare a compelling argument based on discovery with each team advocating for their perspective using available sources of information; take the opposing position; and write a paper synthesizing the perspectives and summarizing a possible solution.

Academic controversy exists when one student’s ideas, information, conclusions, theories, and opinions are incompatible with those of another; and the two seek to reach an agreement. Controversies are resolved by engaging in what Aristotle called *deliberate discourse* (i.e., the discussion of the advantages and disadvantages of proposed actions) aimed at synthesizing novel solutions (i.e., *creative problem solving*). Source: Johnson, D. W., & Johnson, R. T. (n.d.) *Academic Controversy: Increase Intellectual Conflict and Increase the Quality of Learning*, p. 7.

All students are expected to use the Microsoft Teams app and Miro board for course assignments, communication, and materials.

Prerequisites: None. Leadership II students will be assigned extra tasks.

Assessment: Students will be expected to actively participate in this course and complete in- and out-of-class assignments, such as activities, readings, research, and reflection. Grades will reflect the level of students’ participation in various in-class and out-of-class activities and assignments. Points will be given for active participation in all course activities and totaled at the end of the semester to determine your grade. These points are not evaluative; they are for participation.

Learning Outcomes:

- Appreciate the relationship between ethics and leadership
- Begin to develop a personal philosophy of leadership
- Engage in a positive, inclusive learning experience where all students are supported and challenged
- Understand the importance of inclusion and sense of belonging
- Understand various elements of the relational leadership model

Expectations: Students will engage in a positive, inclusive learning experience where all students are supported and challenged. It is expected that students come to class prepared for active participation and should be prepared to participate in her or his full capacity. In class, students will work in small teams to discuss readings, engage in simulations, and use theory to enhance practice through carefully designed group activities.

Assessment: Students will be expected to actively participate in this course and complete in- and out-of-class assignments, such as activities, readings, research, and written reflections. Points will reflect active participation, and grades will be determined by the number of points completed, reflecting the level of students' participation in various in-class and out-of-class activities and written assignments. A=High level of activity, B=Active, C=Low level of activity, D/F=No activity.

Expectations:

- As individuals who understand the importance of inclusion and sense of belonging, CS 1290 students, who took CS 1190, are expected to brief/coach/mentor CS 1190 students.
- Students will engage in a positive, inclusive learning experience where all students are supported and challenged. It is expected that students come to class prepared for active participation and should be prepared to participate in her or his full capacity. In class, students will work in small teams to discuss readings, engage in simulations, and use theory to enhance practice through carefully designed group activities.
- The classroom will be a safe environment for exploring ideas and challenging assumptions. It is an expectation of this course that students will take the necessary action to respectfully listen to the voices of others and share their own opinions and values. Students and instructors are expected to treat each other with respect. Students are expected to approach assignments with thoughtful consideration and to be thorough in their completion. Students can expect the instructors to come prepared and to be willing listeners with regard to student concerns. Students may expect the instructors to be available outside of class to give additional help or support.

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Technology Requirements: Course content is delivered via Teams and the online Miro board. You will need access to a computer/laptop, webcam/camera, and microphone. Check that your computer hardware and software are up-to-date and able to access Teams.

Online Whiteboard Link: We will use the same link for all whiteboard activities:

<https://miro.com/app/board/uXjVPzyf9BY=/>

Academic Controversy Process:

1. Research and prepare a position: Each pair develops the position assigned, learns the relevant information, and plans how to present the best case possible to the another pair representing the same position. Pairs are encouraged to compare notes and use the best arguments to advocate for their position.
2. Present and advocate their position: Each pair makes their presentation to the opposing pair. Each member of the pair has to participate in the presentation and be as persuasive and convincing as possible. Members of the opposing pair are encouraged to take notes, listen carefully to learn the information being presented, and clarify anything they do not understand.
3. Engage in an open discussion in which they refute the opposing position and rebut attacks on their own position: Students argue forcefully and persuasively for their position, presenting as many facts as they can to support their point of view. The group member analyze and critically evaluate the information, rationale, and inductive and deductive reasoning of the opposing pair, asking them for the facts that support their point of view. They follow a set of rules to help them criticize ideas without criticizing people, differentiate the two positions, and assess the degree of evidence and logic supporting each position. They keep in mind that the issue is complex and they need to know both sides to write a good report.
4. Reverse perspectives: The pairs reverse perspectives and present each other's positions. In arguing for the opposing position, students are forceful and persuasive, adding any information that the opposing pair did not think to present. They strive to see the issue from both perspectives simultaneously.
5. Synthesize and integrate the best evidence into a joint position: The four members of the group drop all advocacy and synthesize and integrate what they know into factual and judgemental conclusions that are summarized into a joint position to which all sides agree. They (a) prepare a cooperative report; (b) present their conclusion to the class; and (c) process how well they worked together and how they could be more effective next time.

Table 1. Differences and similarities among controversy, debate, concurrence seeking, and individualistic

Controversy	Debate	Concurrence Seeking (Group Think)	Individualistic
Categorizing and organizing information to derive conclusions	Categorizing and organizing information to derive conclusions	Categorizing and organizing information to derive conclusions	Categorizing and organizing information to derive conclusions
Presenting, advocating, elaborating position and rationale	Presenting, advocating, elaborating position and rationale	Active presentation of position	No oral statement of positions
Being challenged by opposing views	Being challenged by opposing views	Quick compromise to one view	Presence of only one view
Conceptual conflict and uncertainty about correctness of one's views	Conceptual conflict and uncertainty about correctness of one's views	High certainty about the correctness of own views	High certainty about the correctness of own views

Epistemic curiosity and perspective taking	Epistemic curiosity	No epistemic curiosity	No epistemic curiosity
Reconceptualization, synthesis, integration	Closed-minded adherence to own point of view	Closed-minded adherence to own point of view	Closed-minded adherence to own point of view
High achievement, positive relationships, psychological health and social competencies	Moderate achievement, relationships, psychological health	Low achievement, relationships, psychological health	Low achievement, relationships, psychological health

Source: : Johnson, D. W., & Johnson, R. T. (n.d.) Academic Controversy: Increase Intellectual Conflict and Increase the Quality of Learning

Calendar:

Week 1	Jan. 20	Overview of Course, Orientation in Use of Teams and Miro, Consent Forms
Week 2	Jan. 27	Review of Relational Model of Leadership, Introduction to Ethics and Values
Week 3	Feb. 3	Learning the Academic Controversy Process
Week 4	Feb. 10	Case Study Applying the Academic Controversy Process
Week 5	Feb. 17	Cooperative Sharing of Progress
Week 6	Feb. 24	Research Progress Reports
Week 7	Mar. 3	Controversy, Switch, and Reflection
Week 8	Mar. 24	Synthesis and Solutions
Week 9	Apr. 14	Cooperative Writing Teams, Miro presentations
Week 10	Apr.21	Final Reports

Technology Resources:

- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

Academic Resources:

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [Math Tutoring Center \(MaRCS\)](#): Ask a tutor for help and explore other available math resources.
- [History Tutoring Center \(HTC\)](#): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide

Individual Resources:

- [Military Student Success Center](#): Assists personnel in any branch of service to reach their educational goals.
- [Center for Accommodations and Support Services](#): Assists students with ADA-related accommodations for coursework, housing, and internships.
- [Counseling and Psychological Services](#): Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.