

Engineering Leadership Development
EL 3330 – CRN 18744 & ESE 6320 – CRN 17440
Fall 2022 – Hyflex Course Format

Syllabus [Draft]



"The most sustainable way is to not make things. The second most sustainable way is to make something useful, to solve a problem that hasn't been solved"

- Thomas Sigsgaard, Designer, as quoted by Anneliese Fensch, CREATE Research Assistant

Teaching Team: Amira Williams, Angelica Littles, Annalisa Perez, Diane Elisa Golding, Irma Torres Catanach, Mary Adu Gyumfi, Leticia Rodriguez, Nora Cuvelier, Peter Golding, Raquel Haggerty & Victor Garcia

Location: UTEP Classroom Building (C 106) – Accessed from UTEP Classroom Building C 100 – known as E 100 E-Lead Studios

Time & Dates: Thursdays @ Noon – 2:50 PM

Office: Department of Engineering Education and Leadership (E-230)

Office hours: By appointment: TBA and calendly.com/petergolding

Contact: Email: perez@utep.edu, degolding@utep.edu, pgolding@utep.edu

Goals of this Course

The course requires research and critical thinking on individually developed leadership topics of interest.

Course Description: This course divided into two main components. The first deals with individual leadership development by providing a framework for understanding the elements of an organization's leader development system. The second part focuses on collective leadership capacity in organizations. This course ties together and integrates many initiatives stemming from different areas of expertise with the primary goal to be to present knowledge in a way that students can use in their efforts to create leadership development experiences. We will specifically focus on how leadership skills affects the outcomes of engineering processes and engineering teamwork so as to enhance both individual and organizational leadership capacity.

Learning Outcomes

Communicating understanding of the breadth and depth of leadership experiences is a key outcome, assessed through individual F2F reports and team presentations. An ability to share a working knowledge of leadership applications is anticipated. In-depth knowledge of a specific

area of leadership R&D in a topic the student chooses. Local issues in the leadership in engineering education and industry is included. The learning outcomes are thus:

Developing Leaders Key Components: Students will demonstrate an ability to understand leader development systems, how one learns from experience and how leadership coaching is key in leader development.

Developing Leaders Integrative Measures: Students will be able to articulate how leader development coincides with social identify, leader development in times of change, democratization of leader development and evaluating leader development.

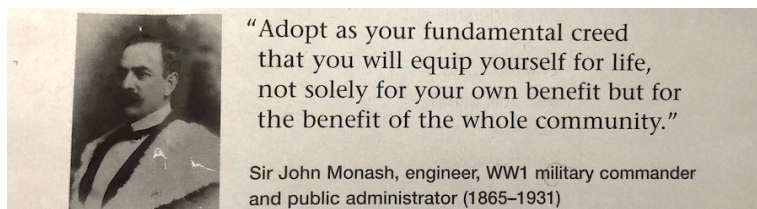
Developing Leadership for Organizational Challenges: Students will demonstrate an ability to apply synthesis developing (a) team leadership capacity, (b) strategic leadership, (c) globally responsible leadership, (d) intergroup leadership, and (e) independent leadership.

- Become cognizant of the breadth and depth of leadership utilization
- Discuss the factors affecting leadership
- Think critically about leadership in prior, current and future eras
- Communicate your own concepts and leadership principles and compare and contrast them with others
- Discuss the culture and practice of leadership in a variety of settings, affecting success of companies, organizations and societies; nationally, regionally, and locally
- Develop an understanding of the (business and community) value of leadership and its impact on individuals, organizations, and societies.

Readings & Resources: The course requires research and critical thinking on individual developed topics of interest. Research articles obtained through UTEP library research resources, and download of articles from Blackboard, in preparation for class discussion.

Academic integrity

Students are expected to uphold the highest standards of academic integrity and achieve excellence in the quality of work produced as an individual. Students are to adhere to standards of integrity and ethical work. Avoid acts of dishonesty such as cheating, plagiarism, et cetera. Refer to OSCCR: <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>



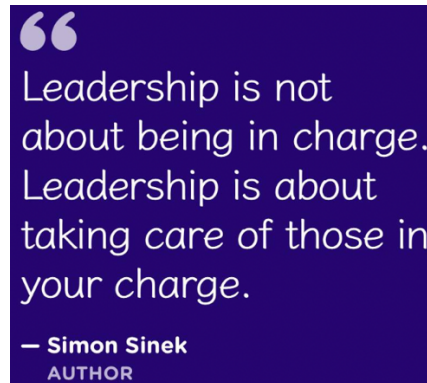
Class Management

- a) **Attendance:** Students are encouraged to actively participate in all class sessions. Absences are allowed for emergencies but must be justified/documentated with the instructor of record. Late assignments will not be accepted unless explained. Participation will be part of the

course grade. Two unexcused absences will account for a 10-point deduction.

- b) Electronic devices: Use of mobile computers and phones is allowed during the class. Students will be asked to research topics, on occasion, during class. Please do not abuse the access: texting and answering emails et cetera is discouraged, enabling you to concentrate on the topics at hand.
- c) Students that have a disability or need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at phone 747-5148 or by email to cass@utep.edu, or visit them in UTEP Union Building East, Room 106.

Contribution to ABET Professional Component: Leadership and management, professional communication.



Course Credit: 3 SCH

Contact Hours: 3 Lecture

Prerequisites: EL 3302, MATH 2313, or departmental or program approval

Relationship to Program Outcomes

- An ability to recognize ethical and professional responsibilities in engineering situations and to make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

Sample Topics:

Leadership techniques, Business and personal ethics, Leadership/management profiles, Knowledge transfer, Core values, History of leadership, Motivational theories.

Assessment and Evaluation: Grading

Grades will be comprised of points gained through individual and teamwork activities. Grades will be determined according to the list below.

A = 90 - 100, **B** = 80-89, **C** = 70-79, **D** = 60-69, **F** = \leq 59 points

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| 1. Exploration: Leadership Research and Analyses | 20 Points |
| 2. F2F Communication: Development Project and Presentations | 20 Points |

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| 3. Written Research Reports – {Doctoral Students: ADDED REQUIRMENTS*} | 20 Points |
| 4. Presence, including Attendance and Active Participation | 20 Points |
| 5. Leadership Development: Final Analysis | 20 Points |

Total class points: 100 points

Notes:

- The dates for research analyses, presentations, and the due date for report submission will be provided at least two weeks in advance.
- Presentations will be informal, formal, individual and team-based. They may be announced or unannounced.
- Communicating, in person, and in written communications (reports) is critical
- Due referencing is an important aspect of graduate studies. When using articles, texts, websites of agencies or lookin for information on the internet, reports, or any publication; written responses need to include references. Use *Times New Roman* font style, 12-point font size and double space.
- * Doctoral Students will be resonsible to complete full drafts of publishable journal documents. Undergraduates will complete second drafts of competently communicated and referenced documents.