CEE 4000 Syllabus

Global Engineering Leadership, Section A, 3 Credits

Fall 2026

Instructor Information

Instructor: Joe Manous

Email: Joe.Manous@gatech.edu

General Course Information

Description

The Global Engineering Leadership course serves as a foundational course for the Global Engineering Leadership Minor. The main objectives are to introduce students to a broad set of skills required for success as a global engineer-leader and to facilitate the development of these skills throughout the semester. The course centers on two team projects:1) forming a domestic engineering firm and 2) evaluating its potential for global expansion. Lectures and assignments cover global grand challenges, strategic planning, engineering ethics, intellectual property, and cross-cultural communication, all of which support students in successfully completing their projects. The syllabus also features guest lectures on topics such as building a private engineering or construction company, leading a government organization, and current global political and strategic issues. The course is communication-intensive, emphasizing the importance of strong written and oral communication skills through frequent assignments and presentations.

Course Learning Outcomes

Upon successful completion of this course, you will be able to apply leadership, strategic, ethical, and global perspectives to engineering practice.

- Identify career steps in an engineering firm and understand leadership responsibilities.
- Describe market sector, financial, and human resource considerations in establishing an engineering firm.
- Identify and understand the components of a strategic plan.

- Analyze opportunities and challenges associated with intellectual property development in the CEE field.
- Demonstrate knowledge of engineering ethics.
- Develop skills in team building, collaboration, and leadership.
- Exhibit advanced written and oral communication abilities.
- Demonstrate understanding of global engineering grand challenges and the role of CEEs in addressing them.
- Evaluate the international viability of an engineering firm considering markets, geopolitical climate, local laws, and culture.
- Demonstrate understanding of cross-cultural communication concepts and strategies.

Required Course Materials

Meyer, Erin. The Culture Map: Breaking Through the Invisible Boundaries of Global Business. Public Affairs, 2014. (A digital copy is available through the Georgia Tech library.)

Grading Policy:

Grades are assigned based on the following numerical scores.

- A (100.00-90.00 %)
- B (89.99-80.00 %)
- C (79.99-70.00 %)
- D (69.99-67.00 %)
- F (66.99-00.00 %)

Assignments

1.	Grand Challenges Essay	150 points
2.	Strategic Planning Analysis	50 points
3.	Mid-term Presentation	200 points
4.	Ethics Presentation/Discussion	50 points
5.	Culture Map Essay	100 points
6.	Final Report with Presentation	300 points
7.	Guest Speaker Analysis	50 points
8.	Peer Evaluations	50 points
9.	Instructor Grade	50 points

Description of Graded Components

- **Individual work**: The Grand Challenges Essay and Culture Map Essay are individual assignments intended to encourage reflection on your own perspectives, informed

by class presentations and discussions about future opportunities, emerging challenges, and the workplace environments in which they occur.

- **Group projects:** This course is built around the exchange of ideas and perspectives within a team setting. To support that learning, the Strategic Planning Analysis, Midterm Presentation, Ethics Presentation and Discussion, and Final Report and Presentation are designed as team projects to help you examine engineering activities from technical, economic, and business perspectives. An important part of the course is learning to find common ground and work through issues that may be unfamiliar to different members of a team.
- **Team membership:** Because much of the course depends on group interaction and team dynamics, the Guest Speaker Analysis, Peer Evaluations, and Instructor Grade are used to assess and provide feedback on your personal contributions, communication, and participation. These components are intended to help you strengthen your effectiveness as a team member before entering professional engineering practice.

Course Policies

Attendance and/or Participation

This course features guest lectures from subject matter experts as well as team projects therefore, attendance is required and included in the Instructor Grade. To receive full credit, you must arrive on time, attend entire sessions, and participate fully in all activities.

If you must be absent, you are required to email the instructor in advance of the class session. Notifications sent after a session has begun are not considered an excused absence.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review Georgia Tech's Honor Code and the student Code of Conduct.

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

Core IMPACTS is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated career competencies. This resource developed by the Center for Excellence in Teaching and Learning and Online Education at Georgia State University includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.