

# **WEIDMAN CENTER**

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# **BYU ENGINEERING**

## **BYU Engineering Leadership Certificate Program**

### **Purpose**

The purpose of the BYU Engineering Leadership Certificate program is to enable self-selected students to develop global leadership competencies. As stated in the Weidman Center mission statement:

*The mission of the Weidman Center for Global Leadership is to establish the BYU Ira A. Fulton College of Engineering as a top source of graduates who are prepared to assume leadership roles in the nation's most influential and respected international companies or companies of their own creation.*

*To accomplish this mission, we will create and provide support for experiences that will develop engineering leaders who can solve technical, organizational, and interpersonal problems; work effectively in diverse and multi-cultural teams; and clearly communicate complex ideas and compelling vision. —Weidman Center Charter*

### **Instructions**

#### **Step 1: Apply**

- Sophomores or juniors enrolled in College of Engineering 200 level or above major courses, or seniors with two full academic years remaining in their engineering program are invited to apply. Students graduating April 2022 need to apply by September 30, 2021.
- A minimum cumulative GPA of 3.0 is required to be admitted into the program.
- Each student must [apply](#) and be admitted before starting on requirements. Some exceptions for students graduating April 2022.
- Once admitted, you will be added to the Weidman Center Leadership Certificate Learning Suite Community. This is where you access all information and content pertaining to the certificate and track your progress.

#### **Step 2: Complete Requirements 1-3**

- Requirements can be completed in any order.
- Certificate requirements including associated reports must be completed and submitted at least six weeks prior to your graduation: Deadline is March 11th for students graduating April 2022.
- Seniors graduating April 2022:
  - For Requirement 1, you may use two previously read books prior to being accepted into the certificate program. Please submit the Alternate Book Proposal form for each book not listed on the Approved Book List to receive approval.

- For Requirement 3, you may use two past experiences prior to being accepted into the certificate program. Please submit an Alternate Experience Proposal for each experience to receive approval if it is not listed on the Approved Experience List.

### Step 3: Submit Completion Survey

## Leadership Certificate Requirements

### Requirement 1: Leadership Literature Study (complete both groups)

**Group 1.1:** Read three books from the following Approved Book List. A written Literature Reflection is required for each book read – see Group 1.2. Please choose books that you have not previously read or are reading for class.

#### Approved Book List:

- “Collaborative Intelligence: Thinking with People Who Think Differently,” Dawna Markova
- “Cracked It!: How to Solve Big Problems and Sell Solutions Like Top Strategy Consultants, Bernard Garrette,” Corey Phelps and Olivier Sibony.
- “Crucial Conversations,” Joseph Grenny & Kerry Patterson.
- “Emotional Intelligence 2.0,” Travis Bradberry & Jean Greaves.
- “Extreme Ownership How U.S. Navy Seals Lead and Win,” Jocko Willink
- “Grit: The Power of Passion and Perseverance,” Angela Duckworth
- “Innovating: A Doer’s Manifesto for Starting from a Hunch, Prototyping Problems, Scaling Up, and Learning to Be Productively Wrong,” Luis Perez-Breva.
- “Leadership and Self-Deception (3rd Ed),” Arbinger Institute.
- “Leading with Cultural Intelligence: The Real Secret to Success,” David Livermore.
- “Mastering Collaboration: Make Working Together Less Painful and More Productive,” Gretchen Anderson.
- “Mindset: The New Psychology of Success,” Carol Dweck
- “Multipliers: How the Best Leaders Make Everyone Smarter,” Liz Wiseman and Greg McKeown.
- “Outliers: The Story of Success,” Malcolm Gladwell
- “Quiet,” Susan Cain.
- “Start with Why: How great leaders inspire everyone to take action,” Simon Sinek
- “The Anatomy of Peace: Resolving the Heart of Conflict,” Arbinger Institute.
- “The Coddling of the American Mind: How Good Intentions and Bad Ideas are Setting up a Generation for Failure,” Greg Lukianoff and Jonathan Haidt.
- “The Culture Map: Breaking Through the Invisible Boundaries of Global Business,” Erin Meyer
- “The Five Dysfunctions of a Team: A Leadership Fable,” Patrick Lencioni
- “The Outward Mindset,” Arbinger Institute.
- “The Reality-Based Rules of the Workplace,” Cy Wakeman.
- “The 10 Faces of Innovation,” Tom Kelley with Jonathan Littman.
- “EQ2.0,” Travis Bradberry & Jean Greaves.

- “The World is Flat: A Brief History of the Twenty-First Century,” Thomas Friedman
- To propose an alternative book, please complete the Alternate Book Proposal form for approval. Available on the Weidman Center Leadership Certificate Learning Suite community.

**Group 1.2:** Submit one written literature reflection for each book read. This writing exercise is to help you learn deeply by internalizing the leadership concepts taught and to improve your written communication skills.

- Title page: Name of book, author(s), reading start and finish date.
- Total length: Three to four written pages.
- Format: single-spaced, one-inch margins and 12 pt. Arial, Calibri or Times New Roman font.
- Due date: Two weeks after book read.
- Each report requires at least one visit to the BYU Research & Writing Center for proofreading and feedback before report submission. Schedule an appointment at [rwc.byu.edu](http://rwc.byu.edu).
- Criteria:
  - Give a brief overview of the book, half-page.
  - Explain what you learned that supports each leadership competency, half- to one page per competency (label competency on each page).
  - Choose one thing in which you disagreed with the author(s) and explain why, half-page or more.
  - At the end of the report, choose one thing that you learned and explain how you will implement it in your life to develop your leadership skills, half-page or more.

### **Requirement 2: Leadership Workshops – attend all six**

Attend all six workshops which are sponsored and hosted by the Weidman Center. Workshops are offered each academic year and can be completed in one year or over two years. Complete the workshop survey for each workshop.

- Attend “Recognize and Reduce Unconscious Bias” and complete survey.
- Attend “Crucial Conversations” and complete survey.
- Attend “Becoming an Expert Problem Solver” and complete survey.
- Attend “Creating Collaborative Environments” and complete survey.
- Attend “Overcoming Imposter Syndrome” and complete survey.
- Attend “Professional Interactions” and complete survey.

### **Requirement 3: Experience – complete both groups**

Experiences are the setting where leadership and technical skills are practiced and honed. The goal of this requirement is for you to have transformative experiences, those that will challenge and push you outside your comfort zone as you apply and develop new leadership and technical skills.

- You are responsible for anything associated with enrollment and participation in the chosen experience.

- At least one experience must be done in a team of two or more people.
- Experiences must not be tied to classroom curriculum except engineering study abroad programs and those on the Approved Experience List.
- Each experience requires minimum time commitment of 30 hours per semester, even those on Approved Experience list.
- Each experience completed within 12 months.

#### **Approved Experience List:**

- Club competition teams: If not for an engineering club, complete the Alternate Experience Proposal form for approval.
- Conferences where the student gives an oral presentation or participates in a competition.
- Student Innovation Events
  - BYU SIOY (must participate in the Showcase).
  - BYU Rollins Center associated programs or competitions
  - BYU Crocker Innovation Fellowship Program
  - BYU Ballard Center Social Venture Academy program, project or competition
  - Social Innovation Projects (SIP): On-campus internship
  - Corporate Social Impact Projects
  - For others, complete the Alternate Experience Proposal form for approval
- Undergraduate Research Poster Session or Competition
  - National organization Research Poster Sessions, e.g., annual AIChE Student Conference, TAPIA Conference, etc.
  - UCUR - Utah Conference on Undergraduate Research
  - NCUR - National Conference on Undergraduate Research
- Case Study Competitions
  - Lockheed Martin Ethics Case Competition
- International Experience
  - BYU [Engineering Study Abroad](#)
  - Engineering International Internship: Complete the Alternate Experience Proposal form for approval
- Student-led Experience
  - Serve as an engineering class tutor with BYU Tutoring Services [yserve.byu.edu](http://yserve.byu.edu).
  - To propose alternative, complete the Alternate Experience Proposal form for approval.

**Group 3.1:** Experience 1 – verbal presentation required

- Choose an experience from the Approved Experience List or submit an Alternate Experience Proposal form to get approval for experiences not listed. The Alternate Experience Proposal form is available on the Weidman Center Leadership Certificate Learning Suite community.
- Before starting the experience, complete Experience 1: Pre-survey.
- About halfway through the experience, complete Experience 1: Mid-survey.
- Visual Aids: During the experience, please take high quality photos (150 dpi or higher) and video footage to include in your presentation.
- After finishing the experience, give one verbal presentation on the experience.
  - Formatting:
    - Power Point or Similar Visual Aid
    - Five minutes (maximum)
    - Schedule presentation time with the Weidman Center: global-leadership@byu.edu. Subject line: LC presentation request
  - Due: Two weeks after the experience is finished
  - Title slide:
    - Name of the experience
    - Team member names (if applicable)
    - Start date - End date
    - Hours/semester spent on the experience
  - Introduction: Briefly state what your experience was, a general overview of the experience, your tasks and responsibilities, and any project or product that was a result (~30 sec).
  - Suggested Talking Points (during remaining time)
    - Your contributions to the experience
    - How did you grow from your pre-survey to the end of experience?
    - How did you develop your technical skills?
    - What did you learn about working on a team?
    - How did your responsibilities lead to technical growth?
    - How did your responsibilities lead to leadership growth?
    - What is an experience that helped you grow in a specific leadership competency? How will you apply this to your life?
    - Additional information that you feel led to growth in the experience or you feel are worth mentioning.
    - Describe one thing you learned that supports one of the leadership competencies and how you will incorporate it in your life

**Group 3.2: Experience 2 (written report required)**

- Choose an experience from the Approved Experience List or submit an Alternate Experience Proposal form for approval for experiences not listed. The Alternate Experience Proposal form is available on the Weidman Center Leadership Certificate Learning Suite community.
- Before starting the experience, complete Experience 2: Pre-survey.

- About half-way through the survey, complete Experience 2: Mid-survey.
- During the experience, please take high quality photos (150 dpi or higher) and video footage to include with your report.
- After completing the experience, submit a written report.
  - Title page: Name of the experience, team member name(s) (if applicable), start and finish date, and estimated number of hours per semester spent on the experience.
  - Length: Two written pages maximum.
  - Submit at least two high quality photos and video.
  - Format: single-spaced, one-inch margins 12 pt., Font: Calibri, Arial, or Times New Roman.
  - Due date: Two weeks after the experience is completed.
  - This report requires at least one visit to the BYU Research & Writing Center for proofreading and feedback before report submission. See <https://rwc.byu.edu/> to schedule an appointment.
  - Rubric:
    - Give a brief, overall description of the experience and outcomes (half-page).
    - Reflect on your development between your Pre-survey and end of the experience and report on your tasks and responsibilities and how those contributed to your technical and leadership development (Two and half to three pages).
    - Describe one thing you learned that supports one of the leadership competencies and how you will incorporate it in your life (half to one page).