

# Business Opportunities in Climate Tech

Boulder Climate Ventures | 1.5 Credit Hours | Leeds School of Business

DRAFT SYLLABUS

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<b>Course Number:</b>	MBAX 6570   1.5 Credit Hours
<b>Term:</b>	Fall 2026, A Term ( August 21- October 2)
<b>Meeting Time:</b>	Fridays, 12:30 PM – 3:00 PM
<b>Location:</b>	Leeds School of Business — Room 100
<b>Format:</b>	In-Person

## Course Description

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As society remakes itself in response to rapid technological advances, there is an extraordinary opportunity to build a world that is cleaner, more efficient and adaptable to a changing climate. Meeting these pressing challenges will require the creation and successful scale-up of hundreds of cleantech ventures.

This course brings together an interdisciplinary community of students and community members to explore the commercial viability of new ventures in climate technology. Through a market-driven curriculum and a strong focus on network and ecosystem building, students will interact with industry leaders, investors, and founders to discuss next generation technologies and areas ripe for innovation.

Students will also gain hands-on experience with the first steps in entrepreneurship—problem exploration, market research, and customer discovery — while building practical knowledge of the cleantech investment landscape. This course is the credit-bearing evolution of the highly successful [Boulder Climate Ventures](#) (BCV) seminar series, which is funded by Breakthrough Energy and managed through a collaboration of faculty and staff at the Leeds School of Business and College of Applied Science and Engineering.

This course is open to all graduate students and is designed especially for students interested in launching or working for a cleantech startup. No prerequisites required.

## Course Learning Objectives

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By the end of this course, students will be able to:

- Identify and analyze the major sectors of the cleantech economy
- Identify a climate problem that needs solving
- Conduct primary market research through interviews to assess the size of the market and the true needs of customers
- Evaluate possible solutions and identify what skills and talents are needed to execute on these solutions
- Collaborate in an interdisciplinary environment
- Apply entrepreneurial thinking to real climate challenges, drawing on CU Boulder's unique research assets and the Colorado cleantech ecosystem.

## Cleantech Focus Areas

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This course focuses on the highest-opportunity sectors in cleantech. Here is an example of some of the topics that may be covered. Final topic list will be distributed on the first day of class.

- Advanced Geothermal Energy — DOD/hyperscaler-backed geothermal as AI data center baseload
- Grid Modernization & AI for Power Systems — Data center demand, solid-state transformers, AI grid management, digital twins
- Critical Minerals & Quantum Sensing — Domestic rare earth supply chains, quantum sensors for subsurface mapping, Colorado's mineral wealth
- Wildfire Detection & Climate Resilience Tech — AI-fused satellite/drone sensing, post-Marshall Fire urgency, building resilience
- Autonomous / Closed-Loop Materials Science — Self-driving labs for battery and materials discovery; AI-accelerated R&D
- Proprietary Data & Novel Sensors — The AI differentiation moat; printed sensors, fiber acoustics, satellite data
- Agricultural Technology & Food Systems — Ag emissions, climate risk to food supply, innovation for resilience
- Nuclear Energy — Advanced reactors, clean baseload, the nuclear renaissance
- Geoengineering & Carbon Removal — CDR, solar radiation modification, climate intervention science and ethics
- Adaptation & Resilience — Flood/drought/heat tech, insurance innovation, water security, coastal protection

## Assignments & Grading

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This is a 1.5-credit seminar course emphasizing active engagement and applied learning. There are no exams.

Assignment	Weight	Due
Attendance & Participation (weekly sessions + guest engagement)	40%	Ongoing
Reading Reflections (4 short reflections, ~250 words each)	10%	Selected weeks
Market Research Memo (sector analysis)	15%	Week 3
Customer / Stakeholder Interviews (minimum 3, written summary)	15%	Week 5
Venture Concept Paper (problem, solution, market, model)	20%	Week 7

## Assignment Descriptions

**Attendance & Participation:** Given the seminar format and distinguished guest speakers, full attendance and active engagement are expected. Please notify the instructor in advance if you must miss a session. One excused absence is permitted; a second requires a make-up reflection. Students are expected to engage respectfully with speakers and peers.

**Reading Reflections:** Short (approximately 250 word) written responses to assigned readings or guest sessions. Prompts will be posted on Canvas. Graded on thoughtfulness and engagement, not length. Four reflections due across the semester.

**Market Research Memo:** An analysis of a cleantech sector of your choosing. Should identify key players, market size, technology readiness, regulatory environment, and one or more venture opportunities.

**Customer / Stakeholder Interviews:** Conduct at least three structured interviews with domain experts, potential customers, investors, or other stakeholders relevant to your venture concept. Submit a 1–2 page written summary of findings and how they shaped your thinking.

**Venture Concept Paper:** A structured analysis of a cleantech venture opportunity, including the problem statement, proposed solution, target customer, business model, competitive landscape, and funding pathway.

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