



Top 5 TOUR STOPS

Best Practices

- Introduce yourself and your role at CSU. Ask visitors to introduce themselves, and ask what brought them to Spur and find out what they are most interested in.
- **If a demonstration is taking place at one of your stops**, address the tour group before you approach the stop so that you aren't interrupting the staff member interpreting the demo.
 - Let your tour group know that you will watch for a couple of minutes but will move on and talk more about that area as you make your way to the next stop. Invite the group to go back and watch the rest of the demonstration after their tour or feel free to stay behind and rejoin the group later.
- If you stop at Dumb Friends League, please don't hesitate to engage the CSU Spur Education team member on site to help provide an overview and orientation.

General Information about CSU Spur

- CSU Spur is the educational anchor campus as part of the larger National Western Center campus.
- The campus is open to the general public Monday-Friday 9:00-5:00, as well as the 2nd Saturday of each month from 10:00-3:00.
- All three CSU Spur buildings connect the public to scientists at work, have interactive exhibits, and experiential education programs for visitors of all ages to learn about food, water, and health. Respectively, the buildings are called Terra, Hydro, and Vida.
- The Vida building focuses on animal and human health, leveraging CSU's world-class veterinary medicine program; Vida translates to "life" in Spanish.
- The Terra Building focuses on food and agriculture. Terra is Latin for Earth.
- Hydro focuses on water; Hydro is Greek for water.
- The National Western Center is a partnership with City & County of Denver, National Western Stock Show, Denver Museum of Nature & Science, History Colorado, and CSU System (they have partnered on this project since 2013).
- Original intent was started by the Western Stock Show Association (WSSA) and City of Denver to update facilities to keep the Stock Show for the next 100 years; and turn the site into a year-round location for education and entertainment.
- Commitment to working with urban-rural connections – and determining how CSU Spur reaches people at all corners of the state and helps create an appreciation of food system and agriculture for urban audiences.
- CSU Spur also has an equity mission – we want every kid who comes to Spur to know that they can attend higher education and that they can be anything they want to be.
- CSU Spur is a state funded facility – the state provided \$200 million in 2015 for the capital construction of CSU Spur – this is a space for the public and is open year-round for visitors and school groups.
 - All buildings at CSU Spur are LEED Gold certified
 - There are 8 major art installations at CSU Spur, as part of the 1% for public art on the project



Top 5 TOUR STOPS

Tour of Vida

Welcome to the Vida building at CSU Spur! In this building we focus on animal and human health, so you'll find veterinarians at work, horses who live on-site and help humans with therapies and receive therapies themselves. Plus, you'll find lots of exhibits, places to explore, and a virtual reality experience!

Tour Stops

1. Kitten sculpture- Esperanza
2. Dumb Friend League Veterinary Hospital & Kid's Vet Clinic
3. Virtual Reality
4. Temple Grandin Equine Center
5. Equine Sports Medicine and Rehabilitation Center

BONUS – Art installations

Details About Each Stop

Kitten Sculpture- Esperanza

- This large kitten sculpture is a way to bring art and fun into an educational space. The kitten draws you in and might purr or meow when you approach it from the front, but hiss or growl if you approach it from behind. We hope to educate visitors on how to properly approach animals, how to read their body language, and listen to what they're trying to tell us. Esperanza's name was chosen in a public contest. Her name was submitted by community partner Tepeyac Health Clinic.

Dumb Friends League Veterinary Hospital on-show viewing (and surrounding exhibits)

- The Dumb Friends League Veterinary Hospital at CSU Spur provides donor-subsidized care to companion animals to keep families together.
- The hospital provides hands-on education for CSU veterinary students and a science-on-display opportunity where the public can watch veterinary surgeries.
- Why? Traditionally an animal shelter, Dumb Friends League realized that many people were relinquishing their pets because they faced barriers to providing their pet with veterinary care. Instead of taking in a surrendered animal, getting them medical care, and then finding them a new home, Dumb Friends League realized they could develop a model that kept families together.
- Why an on-show area? One of the main goals of CSU Spur is to allow students and visitors to engage in career pathway development. We hope when students observe a live veterinary procedure, they see themselves in these roles in the future. We also have panels on career pathways in each of our buildings.

Mock Veterinary Clinic (talk about as you walk by):

- We hope students and visitors will be able to practice what they see in the on-show area in a mock veterinary clinic. Visitors can engage in an interactive experience to try their hand at being a veterinarian or technician.

VR Classroom (mention to the group):

- We also have a virtual reality classroom where students can engage in interactive experiences around human and animal anatomy. We are excited to share this cutting-edge technology used by professors in classes at CSU with visitors at Spur.



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Temple Grandin Equine Center arena (and surrounding exhibits)

- This is the second location of CSU's Temple Grandin Equine Center, which provides equine-assisted services (EAS) to humans with a range of needs.
- EAS is available to people with a variety of diagnoses from cerebral palsy to depression to down syndrome.
- The Center operated in a temporary location in Denver from 2017-2021.
- The Center will be able to serve up to 200 clients per week with EAS; 7,500 a year.
- TGEC uses evidence-based practices and has published many papers on EAS. They are currently conducting a study on occupational therapy integrating horses for autistic youth.
- EAS are professional services that incorporate horses to promote human well-being and fall into three broad categories:
 - Therapy services: incorporates horses and the equine environment into therapy within the medical professional's scope of practice, such as physical therapy or occupational therapy.
 - Equine-assisted learning: services in the equine environment promoting the development of life skills for educational, professional, and personal goals.
 - Horsemanship: activities focusing on teaching horsemanship skills, in an adaptive manner, which have naturally healthful benefits.

Digital Interactive Wall (talk about as you make your way to ESM):

- At this interactive exhibit you can interact with a cat, dog, or horse and learn more about their lives and how to care for them.
- *Stand on the floor decal to wake up a character; raise your hand to progress the storyline.*

Dumb Friends League Spay and Neuter Clinic (can mention as you walk by):

- This clinic highlights the importance of spaying or neutering pets and helps keep cat populations healthy and reduces the risk of disease.
- The clinic provides high-quality, high-volume, donor-subsidized spay and neuter services for cats. The clinic sees an average of 55 cats/day for these procedures. Cats could be companion animals or feral (which will then be released back to the area that they were found).

Equine Sports Medicine and Rehabilitation (ESM) space

This space supports equine athletes with the latest diagnostic, therapeutic, and rehabilitation techniques from birth through retirement; training through competition; and injury through rehabilitation.

- Professionals in the ESM space can assist with a variety of services, including:
 - Acupuncture
 - Assistance with physical or behavior issues that limit your equine athlete
 - Chiropractic
 - Diagnosis and treatment of musculoskeletal injuries
 - Lameness workups
 - Poor performance evaluations
 - Therapeutic management of neck and back pain
 - Underwater treadmill



Top 5 *TOUR STOPS*

About the Art

- [Animals at Play](#) by Priscilla de Carvalho (indoor tile mural/staircase of Vida) The ceramic mural evokes a dreamlike landscape with botanical imagery displaying native flowers symbolic of growth and continuity. This visual narrative features images of cats, birds, dogs, and horses as part of the programming at the center. Noble stallions pay tribute to native tribes, culture, and history.
- [Vital Rhythms](#) by Shane Allbritton and Norman Lee (outdoor horse mural you can see as you exit Vida) The concept of Vital Rhythms reinterprets the electrocardiogram (ECG) vital signs and other data visualizations of horses at various modes of activity into an expansive and dimensional mural of a horse.



Top 5 TOUR STOPS

Tour of Terra

Welcome to the Terra building at CSU Spur! In this building we focus on food and agriculture. You will find scientists working on cutting-edge research, have a chance to learn where your food comes from and about the people who help get it to your plate, and even have a chance to see food being grown!

Tour Stops

1. Living Wall and Controlled Environment Horticulture Demonstration
2. Kitchen
3. Soil, Water & Plant Testing Lab
4. Green Roof and Rooftop Greenhouses
5. Community Food Justice Garden

Details About Each Stop

Living Wall and Controlled Environment Agriculture (CEA) Demonstration

- The Living Wall
 - Did you know that having plants inside of buildings helps to clean the air we breathe and provides benefits to our mental health? This living wall is made up of 1620 plants from 5 different species, all watered through tubes inside the living wall structure
- CEA demonstration
 - The CEA demonstration space is located on the first floor of the Terra building and is designed to be a showcase of industry advancement and technology. The first demonstration will focus on light-emitting diode (LED) lighting with an emphasis on light quality (color) along with our industry partner Heliospectra. The goal of this space is to draw in visitors and (hopefully) entice them to explore the facility and CEA further.
 - The CEA Lab (largely not visible to the public) is located on the second floor of the Terra building and houses four Conviron walk-in growth chambers. This lab is designed to support cutting-edge controlled environments research focused on environment optimization (e.g., temperature, lighting, carbon dioxide) to enhance production in both greenhouses and vertical farms.

Ardent Mills Teaching and Culinary Center

- This kitchen is dual purpose – it's a commercial teaching kitchen space where we can host nutrition classes, cooking classes and more ... and it's also a space for community with a commissary space for local food entrepreneurs.
- A sensory testing space also provides an opportunity for companies to work on their ideas in the Food Innovation Labs, create them in the kitchen, and then have professional taste testers try them out!
- The Food Innovation Center at CSU Spur consists of 3 food product development labs, each with a different focus (meat, produce, dairy). These spaces are designed to be used by food scientists, product developers, and entrepreneurs to gather insights about the ideation, prototyping, scaling, and production of food products. The FIC utilizes the kitchen across the hall to bring many of these concepts to life, where they can be tested and evaluated in our sensory evaluation space.



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Plant Diagnostic Clinic and the Soil, Water, and Plant Testing Lab

- Plant and Soil Labs
 - The PSL provides soil, water, and plant testing to the ag community (farmers and ranchers) as well as homeowners, environmental consultants, landscape contractors and golf course managers. The goal of the program is to provide high quality analytical services, interpretations, and science-based recommendations to guide management decisions to optimize production and profitability while managing the soil and water resources in an environmentally conscious manner. It will also offer a new suite of cutting-edge analyses focused on soil health insights.
 - The PSL provides a one-stop-shop for all things plant health, integrating across multiple disciplines to provide accurate, high quality forensic analyses. From soil chemistry to molecular identification for plant pathogens, the PSL showcases the science that keeps our plants healthy.

Green Roof and Rooftop Greenhouses

- Green roof
 - The Spur green roofs will be a research and demonstration facility to build on previous CSU research, in our semi-arid climate, to:
 - Investigate water use on green roofs
 - Food production systems
 - Interaction of solar panels and green roof technology (i.e. rooftop agrivoltaics, located on non-public Hydro rooftop)
 - Green roof plant-pollinator interactions
 - Green roof seeding research
 - Emergent research questions in the industry
- Rooftop greenhouse
 - A rooftop greenhouse is located on the Terra building and will house multiple hydroponic systems to demonstrate the latest approaches and technologies for controlled environment crop production. This space will support minimal research with the primary purpose being outreach and teaching for diverse audiences ranging from K-12 education to the Colorado Green Industry. Specifically, a primary goal of this space is to communicate the importance of controlled environments for food production in urban spaces and to equip communities with knowledge and skills in this area.

Community Food Justice Garden (south end of building, Floor 1)

- This garden represents a coming together of community to raise food for others, and to work toward food justice for our nearby neighbors. The garden is maintained by the Globeville and Elyria-Swansea community, and food grown in this garden is delivered to local households to support The GrowHaus' food access programs.
- Several rows of the rooftop garden are also harvested for the Community Food Justice Garden.

About the Art

- [The Bale](#) by Patrick Marold, an artist out of Nederland, Colorado. Inspired by a haybale but wanting to have it be an interactive art piece, more than 500 stainless steel rods were welded together. It's a favorite interactive piece on our site!
- [Tomorrow's Food](#) by Sandra Fettingis, local Denver artist. This piece hangs from the ceiling of the Terra building and engages visitors in an artistic interpretation of the future of food. The piece is a nod to innovative food creation, including things like the vertical gardens you see in Terra.



Top 5 TOUR STOPS

Tour of Hydro

Welcome to Hydro, the third and final building to open at CSU Spur! This building opened in January 2023, and it completes the CSU Spur campus. The Hydro building connects visitors to water, which is our livelihood, showcases careers in water, and advances the state of the art in water management and policy.

Three principles instilled in visitors of Hydro are:

1. Water is essential
2. Water is limited
3. Water is shared.

Inside the building there are scientists working on the water we drink in Denver Water's new Water Quality Lab and working on new technologies in the CSU Water Technology Accelerator (TAP). There are also labs, classrooms, music and artist studios, and a theater, as well as a café with farm-to-table food.

Tour Stops

1. Denver Water Lab
 2. Stream Table
 3. Water TAP Lab Space
 4. The Shop
 5. The Backyard
- BONUS: Art Installations and Confluence Theater

Details About Each Stop

Denver Water's Water Quality Lab

- Denver Water is the drinking water utility for a quarter of the state's population. The new Water Quality Lab at CSU Spur's Hydro building is home to scientists and researchers working on the water we rely on every day, and you can watch them at work!
- Kiosks on the pillars of the 3rd floor invite students to look at different water quality indicators. Did you know that certain macro-invertebrates help us determine the level of pollution we might have in our waterways?

Stream Table

- Students can get into the mix and understand how water shapes the land at the 2nd floor Water Table – toss on a Spur smock and learn about the way water moves by creating your own rivers, streams, and lakes.

Water TAP Lab Space (2nd floor viewing area)

- The Water Technology Accelerator Platform—or Water TAP for short – is a two-story lab space where new water treatment technologies are tested. Watch in real-time as CSU researchers and partners find the best treatment options for different types of water.

Artist studios in The Shop

- The Shop, formerly an auto mechanic shop, has had a variety of uses since it was built in 1930. The building has been restored and is now part of the CSU Spur Hydro building, still featuring graffiti on the walls and crank-open historic skylights.
- The Shop is a collaborative space for water nonprofits and educational organizations and is also home to seven artist studios where the public can watch artists at work.



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The Backyard

- This space invites visitors outdoors to enjoy the weather and explore the landscape architecture depicting watersheds in Colorado. Also, in the backyard, you'll experience one of the most fun interactive art pieces at CSU Spur – “Crescendo,” large concrete waves placed throughout the Backyard, by local artist Nikki Pike.

Confluence Theater

- This black box theater space is a great place for musical performances, theatrical performances and seminars to take place.

About the Art

The art installations within the Hydro building are larger-than-life!

- [Rotation Index](#) London-based Jason Bruges installed this matrix of rings in the bridge between Terra and Hydro that digitally represents live experiments happening within the campus.
- [Crescendo](#) artist Nikki Pike's Crescendo is focused on the large grouping of waves placed centrally in the Hydro Backyard. The concrete waves flow throughout the entire backyard and allow for an interactive piece that lends directly to the building use.
- [Whirlpool](#) Anthony Garcia Sr. is from the nearby Globeville neighborhood and visioned “Whirlpool,” a painted wrap of the Hydro alleyway with a loud, vibrant pattern consisting of variations of blue, that welcomes visitors and creates a portal-like experience when walking through it.
- [Swirl](#) Eric Tillinghast of California created this sculpture that uses water's tendency to spiral to create a swirling water form that falls from the 3rd floor in Hydro to the lobby, through the middle of the spiral staircase.

Thanks for joining a tour of CSU Spur!

General Calls to Action to Mention

- CSU Spur is always looking for volunteers and organizations to partner with – our spaces are meant to be collaborative, so spread the word
- Follow @CSUSpur on social media for the latest updates
- Share CSU Spur with teachers and students – it's always free and open to the public
- Thanks for joining, come back and see us again soon!